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JOURNAL OF PHYSICAL CULTURE,

DEVOTED TO

HYGIENIC MEDICATION, BODILY DEVELOPMENT, AND THE LAWS OF LIFE.

JULY, 1867.

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General Articles---Hygienic and Miscellaneous.

MINUTES

OF THE

Brawnville Athletic Club.

EDITED BY MOSES COIT TYLER.

IV.

THE VILLAGERS IN MASS MEETING.

BRAWNVILLE, *November* 24, 1865.

WE were like Belgium's capital to-night—there was a sound of revelry in Brawnville. For in our quiet village, where reigns the serenity of a population of lotus-eaters, any sound seems like a sound of revelry, which is not a sound of homeward-plodding villagers or of prayer-meeting devotees. Were it not for the occasional presence of a meandering magician, or of a maundering phrenologist, or of a tempestuous Temperance lecturer, we Brawnvillans, nestling in our far-away rural valley, might consider ourselves treated to the cold shoulder, snubbed, ignored, by the entire outside world. Left thus to our own resources, a very mild beverage indeed acts as a powerful stimulus upon us. I think the dropping of an aerolite into the midst of the town at noon-day would have caused less agitation and effervescence than did the announcement, made shortly after our tea-party at Judge Fairplay's, that there would be a meeting of the villagers to-night at the schoolhouse to consider the proposition of establishing a gymnasium in Brawnville. It had been at first intended to hold the meeting at one of the churches; but this plan was received with such righteous indignation by certain of our good people that we thought it best to give it up. Parson Bland was sure that his church could be had for the purpose; and the pastor of the First Church, the Rev. Job Fearful, a most excellent divine, of a meek, inoffensive and bilious aspect, was inclined to recommend to his deacons the use of theirs, if it should be desired. Mr. Fearful is one of those superlatively modest and angelic dispensers of the Gospel who, devoting their lives to the salvation of other people's souls, have never the courage to say that they have any souls of their own; and before one wave of Deacon Snipp's scepter the good man is accustomed to surrender at discretion, and retire into the tranquil cell of his own humility and insignificance. On his mentioning to the deacons the request that the church might be granted for a village meeting to consider the establishment of a gymnasium in Brawnville, Deacon Snipp rose to an unwonted height of pious wrath, and avowed his willingness "to see the church burned to the ground, and its site plowed over and sowed with salt, rather than have it desecrated by an assemblage convened for so worldly and, indeed, godless a purpose. He was surprised that their honored pastor should even propose such a thing. It would be a most wicked concession to a carnal spirit that was now rampant in the village.

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Men were getting to care more for their bodies than for their souls. He did not know what judgment God was about to punish them with for such a removal of the ancient landmarks." One of his colleagues, Deacon Wiltsie, suggested that "perhaps men would care just as much for their souls, even if they did pay some attention to their bodies; that if by 'the ancient landmarks' Deacon Snipp meant those very ancient and conspicuous ones of round shoulders, and flat chests, and bankrupt stomachs, and stiff joints, and inefficient muscles, the sooner they were 'removed' the better; and that, if the laws of health were ordained of God, he did not see why the house of God was not exactly the place to be used for promoting a more general obedience to those laws." As, however, the use of either church seemed sure to awaken great asperity of feeling, it was decided to hold the meeting in the schoolhouse, and thus avoid complicating the plan by any side issues. But Abdiel Standish, who conceals beneath a rough exterior and a Yankee provincialism an unusual amount of good sense and mother wit, and who never loses an opportunity of worrying Deacon Snipp, met that devout man at the door of the post-office a few days after the refusal of his church, and in the presence of quite a crowd of people, who expected to see some fun, Abdiel saluted him thus:

"I say, Deac'n, why would'nt you Fust Church folks let us have your meetin'-house?"

"We think, Abdiel, that the Church of God ought not to be used for a profane purpose."

"And do you call it a profane purpus, the raisin' o' funds to build a gymnasium?"

"Most certainly!"

"But, Deac'n, 'spose the objick of the gatherin' was to raise funds to keep the meetin'-house in repair; would you call that a profane purpus?"

"Why, of course not, Abdiel—what a strange question!"

"Wal, Deac'n, ain't our bodies—which God made—jest as sacred as the meetin'-house which man made? Does'nt the Bible say our bodies air 'the temples o' the Holy Ghost?' Now, Deac'n, I should like to know what is a gymnasium but suthin' or other to help keep the livin' 'temples o' the Holy Ghost' in repair, to help keepin' on 'em from fallin' into decay, and becomin' old and rickety afore their time, and unfit for the uses which God 'lmighty intended 'em fur? Ef you call that a profane purpus, why all I've got to say, Deac'n, is that your idees of profanity air 'bout as much mixed as the old darkey's idees o' prayer wus?"

"How was that, Abdiel? I don't know what you refer to."

"Wal, Deac'n, I kind o' thought you did'nt—so I'll tell you. You see, Deac'n, there wus a prayer-meetin' among the black folks somewhere, and the preacher asked if some brother would'nt lead in prayer. As is often the case in white folks' prayer-meetin's, there was a long pause. Bymeby a half-witted fellow, named Zeke, begun a string o' words that had'nt no meanin' to 'em. Of course, the darkey thought he was a prayin' to the Lord; but man could'nt make head or tail o' what he wus sayin', and it seemed likely that the Lord could'nt neither. So the preacher looked up and said: 'Who's dat prayin'? Dat you, Brudder Zeke? Jess you hold on, Brudder Zeke; you let somebody pray dat's better acquainted wid de Lord.' So I say, Deac'n, jess you hold on, Brudder Snipp; you let somebody talk about profanity dat's better acquainted with what profanity is."

The poor Deacon made no attempt to reply; for the loud laughter of the crowd, that never failed to appreciate Abdiel's rough jokes, would have prevented any single voice from being heard. So, in the general tumult of mirth, the Deacon beat a safe and an orderly retreat.

By 7 o'clock this evening the school-house was crowded, as the newspaper writers would say, to its utmost capacity, by a highly respectable audience of ladies and gentlemen, all eager to hear more particulars of Judge Fairplay's plan. I shall not attempt to relate minutely every thing that was done, but shall content myself with those things that were the most interesting and decisive. Judge Fairplay was called to the chair; and the village schoolmaster, being usually credited with the ability to write, was made secretary. As I could not make a speech if it were to save my neck from the hempen noose, I was really glad to serve the good cause with the only instrument of expression I can at all command—the pen. On the subsidence of the warm applause which greeted the Judge's appearance on the platform, he made a little speech, which, by the help of phonography and a good memory, I am able to give almost word for word; and I think every word of it worthy of keeping.

"*My Friends*—It is scarcely necessary for me to state that the object of this meeting is to consider the project of establishing a gymnasium in the village. I have long been of opinion that such an institution was needed here indeed, I hold that wherever there are people enough to have a church, a school-house and a

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post-office, there are people enough to have a gymnasium. Society will never be properly constituted until it be constituted on the basis of spiritual and physiological law.

"A house, erected for human habitation, in which no provision has been made for fire and for the escape of smoke, is not more certainly defective than that series of houses, called a village, in which no provision has been made for bodily exercise. In a certain stage of social development people commit the former mistake; they light fires on the ground in the middle of their huts, and leave the smoke to escape as best it can by its own ingenuity. We look with pity and with wonder upon such poor people—Hottentots, Esquimaux, Irish peasants—and we say that they are in a state of barbarism. By-and-by, when mankind shall be properly educated in natural laws, they will look with a similar pity and with equal wonder upon us who have committed the latter mistake—who have built a village without building a gymnasium; they will speak of us as having been in the mere murky dawn of a semi-civilized state; as having been only just sufficiently removed from the condition of barbarians to have a vast conceit of our own progress, and exactly far enough out of the darkness to be continually boasting of our own light.

"The more I reflect on the essential elements of civilization the more am I impressed with the preposterousness and the impudence of this Nineteenth Century in ever pretending that the Dark Ages have yet terminated.

"They only are civilized beings who know and obey the imperial laws of this complex life of ours—the laws of spirit, the laws of matter; and only that village or city is within the pale of civilization which recognizes this broad truth, and is itself an apparatus for carrying it into effect.

"In taking the chair to-night it is not my purpose to enter at large upon this subject; but I thought it right at the outset thus to state to you my position. I have lived among you all my life. I should like to assist you in making this beautiful and wealthy New England village a civilized one. We have churches. We have schools. We have a library. We have shops, stores, factories, farms. What lack we yet? We lack one essential factor of civilization. We have no gymnasium. That is a disgrace to us. Shall we not conspire together to-night to remove that disgrace? Probably all have heard something of a plan on which a few of us have been consulting together. Our object to-night is to have all consult together upon the plan. I have asked my friend, the Rev. Mr. Bland, to state it to you.

"But before I take my seat, allow me to relate a story out of the 'Arabian Nights.' It is one which I came across last evening while reading The Spectator. Addison tells it somewhat in this style: There was an Oriental King who had long languished under a weak habit of body, and had taken an abundance of remedies; but all to no purpose. At length, however, a physician cured him by the following curious method: he took a hollow ball of wood, and, with an air of great science and mystery, he filled it with several kinds of drugs, after which he closed it up so artificially that nothing appeared. He likewise took a club or bat, and, having hollowed the handle and that part which strikes the ball, he inclosed in it several drugs, in the same manner as in the ball itself. He then ordered the Sultan to exercise himself with these rightly prepared instruments until such time as he should thoroughly sweat; when, as the story goes, the virtue of the medicaments perspiring through the pores of the wood had so good an influence on his majesty's constitution that it cured him of an indisposition which all the remedies he had taken inwardly had been quite unable to remove. 'And this Eastern allegory,' remarks Addison, 'is finely contrived to show us how important bodily labor is to health, and that exercise is often the most effectual medicine.' It is a good many years since I read the 'Arabian Nights,' and I do not remember what the Sultan did for that very ingenious and sensible doctor. I presume, however, that he rewarded him handsomely, bestowing on him gifts of honor and of wealth worthy so great a monarch. But all that is essential in the prescription for which the Sultan paid so much we can have for nothing.

"We have some admirable physicians among us; and one of them, whom I have the honor to number among my dearest friends, we have here to-night. I think we give our doctors a great deal too much trouble; and, in my opinion, all trouble which is avoidable is too much. We are obliged to afflict the doctors grievously by running to them so often, or having them run still oftener to us. Let us relieve them and ourselves by adopting the ball-and-bat prescription of the Oriental doctor; and, after all, a gymnasium is but a somewhat larger, more varied and more elaborate ball and bat!

"Do you not remember with what energy John Dryden has insisted on the value of exercise as a means of averting bodily weakness and disorder?

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"'By chase our long-lived fathers earned their food—
Toil strung their nerves and purified their blood.
But we, their sons, a pampered race of men,
Are dwindled down to three-score years and ten.
Better to hunt in fields for health unbought
Than fee the doctor for a nauseous draught.
The wise for health on exercise depend,
God never made his work for man to mend.'

"Let us, my friends, in the true spirit of wisdom and of religion, recognize the truth of that last couplet. Let us, as rational beings and as Christians, so adjust the economy of our lives to the processes of universal law as to avoid all that suffering which comes from folly, and all that dishonor upon the Maker of our bodies which comes from the spectacle of his workmanship in need of so much mending at the hand of man"

It is the characteristic of Judge Fairplay's mind to dignify whatever subject he touches by connecting it with the great general law on which it rests. Nothing could have fitted the needs of the meeting better than that little speech. For several days past many of our villagers had been making themselves merry over the thought of a gymnasium here, and have fired off a good many rather flat jokes at the prospect of beholding Judge Fairplay, Parson Bland, and others, performing such pranks as they have witnessed in a traveling circus. Of course, these jesters but reveal their own ignorance of what a proper gymnasium is, and their total want of reflection as to the connection between exercise and health. Indeed, I am fully persuaded that the vast majority of the American people are still as devoid of any intelligent conception of the sanitary bearings of muscular exercise as they are of the precession of the equinoxes or the use of the Æolic digamma. Accustomed thus far, as is inevitable in a new country, to think of bodily labor merely as a means of livelihood—merely as an inevitable incident in chopping down trees, in plowing fields, in digging canals, in building houses, in making horseshoes, and cart-wheels, and baby-jumpers—we have not as yet had much occasion to view it as a means of health. Before Judge Fairplay spoke to-night I thought I noticed on the faces of many present an expression as of persons who had come together on a very absurd errand indeed. I think his speech was to some of them a new revelation. When he concluded, they had the rare and very peculiar appearance of having been struck by an idea.

At this point, before Parson Bland could rise and make the statement which Judge Fairplay had requested, Deacon Snipp sprang to his feet and claimed the right to be heard. The Deacon is a tall and somewhat lank gentleman, with false hair, false teeth and a foxy smile. To-night, however, the smile had given place to an injured and lachrymose look, which betokened at once the consciousness of superior sanctity, and the expectation of almost immediate martyrdom at the hands of a wicked and perverse generation. His rising was obviously an offense to the larger portion of the assembly. An ominous sound, as of mingled heel-taps and hisses, came from the back of the room; but at one look from the chairman silence was restored.

The Deacon said "that he had risen from a sense of duty to his Master and the cause of religion and good morals to protest against the object contemplated. A gymnasium would be an encouragement to all manner of gaiety, frivolity and dissipation. He regretted to see so respectable a gentleman as Judge Fairplay lending his support to such a project. And it grieved him to see a minister of the meek and lowly Jesus"—at this favorite phrase of the Deacon's, which upon his lips sounds like absolute cant, and which the people have heard from him to the point of nausea, outcries and stamping resounded from all parts of the room, and completely silenced the Deacon's croaking tones. Judge Fairplay rose and beckoned for silence, and then administered to the meeting a stern rebuke for its discourtesy and indecorum. He told them that "the object of the meeting was free discussion; nothing would be gained by trying to choke down opposition; they ought to listen patiently to every objection, and treat it with a refutation, if possible—never with senseless clamor." He then called on Deacon Snipp to proceed.

The Deacon, who had remained standing during the tumult, and would have made an admirable model for "Patience on a monument, smiling at Grief," now resumed: "He would not occupy their time much longer (cheers from all parts of the house); he had risen merely to enter his protest as an officer in Zion; he had meant, when interrupted, to express his sorrow that a minister of the Gospel should lend his support to so dangerous a doctrine. It was a sad day for Zion when ministers were engaged in leading the young into temptation. If this gymnasium should be established it would open the way for dancing, card-playing, billiards and croquet. (Loud laughter.) They might laugh; but he trusted he should have grace given him to endure the laughter as well as the frowns of

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a sinful world. He would now sit down." (Vehement cheering at the last statement.)

Mr. Bland now came forward. No contrast could be greater than that between him and Deacon Snipp. Each represents a type of religious character. The Deacon represents the ever-enduring Pharisee type—narrow, morose, ceremonious, self-complacent. Such as he will walk five miles to a prayer-meeting, but will not cross the road to save the poor man who lies stripped and bleeding at the hands of thieves—they are so much occupied in giving mint, anise and cumin to the Lord, that they have not time to throw a crust of bread to the beggar starving at their gate; they seem to think Christians are to be not messengers of sweetness and gladness in a world already too full of gloom, but so many two-legged vinegar cruets to spill over upon the sports of childhood and the joy of life. As for Mr. Bland—he is what the Brawnville people have named him; he is "Sunshine." The very objections which Deacon Snipp and his sort urge against Mr. Bland would apply with equal force against the light of God's sun. If the former gives a cheerful view of God and nature, so does the latter; if Mr. Bland chases away darkness, depression, sorrow and pain, so does the sun; if he is heterodox, so is it! I wonder, by-the-by, why the Pharisees do not call an ecclesiastical convention and excommunicate this same sun! Certainly, they have no greater foe extant. Parson Bland began by saying that "he, too, rose as an officer in Zion, not, however, to oppose the plan of a gymnasium, but to say 'God-speed" to it. Surely, he who was reverently addressed as the Great Physician, and who when upon earth passed so much of his life in healing the diseases of mankind, would approve of every device for averting bodily weakness; there was in a well-conducted gymnasium nothing unfavorable to religion and good morals, to piety, purity or charity." Mr. Bland then unfolded the project of an Athletic Club; exhibited the plans of the architect; told the people of Judge Fairplay's gift of ground for the site and of half the cost of the building, and concluded by moving a series of resolutions expressing gratitude to Judge Fairplay, and calling for the nomination of an Executive Committee of twelve—six ladies and six gentlemen—to take such further measures as the case required.

Deacon Wiltsie of the First Church, the colleague of the venerable Snipp, rose to second the motion of Mr. Bland for the adoption of the resolutions. He said that "as an officer in the same church with Deacon Snipp, as a follower of the same Master, as a believer in the same faith, he was anxious to show by this act that there was no necessary connection between orthodoxy and antipathy to gymnastics; that he could not help regarding his colleague's allusion to Mr. Bland as unjust; that Mr. Bland did indeed lead young men into temptation, but it was the same kind of temptation as that practiced by Whitefield, of whom a person once said: 'He was so cheerful that he actually tempted me to be a Christian;' finally, he did not think it was incumbent on those who were zealous for Zion to be jealous of innocent pleasures and diversions."

I had noticed for some minutes that our Platonic brother, Dr. Drugger, was getting ready to speak. Of course, the Doctor, as a man of culture and of really fine feeling, would oppose the scheme in a very different manner from that so natural to Deacon Snipp. The latter utters the objections of religious bigotry—of ignorance and intolerance couching under the shield of piety. The former presents the objections of medical bigotry—of personal narrowness and professional conservatism veiled beneath the mantle of science.

The Doctor said that "it must be evident that the plan of an Athletic Club was already determined on, and that opposition would be quite unavailing; it was, however, none the less his duty to express the stern objection which he as a man of science had to gymnastics. Ages ago, Galen, one of the fathers of medical science, had passed condemnation upon gymnastics. That great physician had called the art κακοτεχνίαν ὀνοματι σεμνῷ. (Laughter and ironical cheers.) He hoped they would excuse him for introducing a Greek quotation; and he would now give them the translation, which was that the gymnastic art is 'a contemptible art smuggled under a venerable name.' For his own part, he did not object to a little moderate exercise; but the ordinary vocations of life gave them that in sufficient quantity. He decidedly sympathized with Sir Walter Scott's friend, Plummer, who used to say to the great novelist that 'a walk from the parlor to the garden once a day was exercise enough for any rational being, and that nobody but a fool or a fox-hunter would take more.' (Laughter.) The common practice of gymnastics ignored a great physiological fact—that there are in the body two distinct forces, the muscular and the vital, and that the former may be cultivated at the expense of the latter. Men often become strong outwardly and weak inwardly.

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Suppose they should produce an enormous shell of muscle; it would not necessarily make them healthy. It might rather make them diseased, by drawing away to the surface the life and power of the great vital organs within. It was notorious that acrobats, pugilists, rope-dancers, gymnasts, and other mountebanks (laughter), were a short-lived race. In certain districts of Germany, where gymnastics have been thoroughly disseminated for a long period, medical statistics report a frightful prevalence of heart-disease. (Sensation.) There was another view of the case which he would suggest to parents—the great danger of accidents to their children. Sprains which are carried through life, the fracture of arms, legs, ribs, these are common occurrences in gymnasia; and scarcely a year passes without the announcement of some one being killed in gymnastic performances. (Sensation.) He noticed not very long ago the account of a little boy in a Western gymnasium who got caught among the ropes, and was found dangling there by the neck, twenty feet from the floor—hung like a malefactor! (Sensation of horror among the ladies.) He objected to the new movement in America toward gymnastics because it was a mania. Americans seem to have some pet mania on the carpet all the while; one day it would be silk-worms, then copper-stock, then gold-digging, then Shanghai chickens; and now it is gymnastics! (Laughter.) He supposed that this insensate gymnastic mania, like all the others, must have its course; but it was the duty of those who could keep their wits together during this epidemic of madness to do so!" (Cheers and laughter.)

There was just enough of cool, slashing oratorical surgery about this speech to make it very effective. While the Doctor was speaking Deacon Snipp sat in a sort of rapture, both astonished and delighted at so unexpected an auxiliary; and as soon as the Doctor had ended the Deacon gained the floor.

After profuse compliments to Dr. Drugger, he said that "he felt strengthened to rise once more and urge upon his fellow-townsmen to beware of what they were doing. They all appreciated the munificence of Judge Fairplay; but the money would be much better bestowed if sent to convert the poor perishing heathen in Africa. He discovered in this gymnastic movement—or mania, as Dr. Drugger properly called it—only another token of the shocking impiety, irreverence and materialism now overrunning the age. People were beginning to talk in "most presumptuous manner about being able to control the mysterious springs of health. Not so did the ancient saints believe. No; they used to accept sickness as a providential dispensation and a means of grace. He would illustrate what he meant by an incident in his own experience. He was once ill. A Christian brother called to comfort him, and said: 'What a pity, Brother Snipp, that you are ill.' (Laughter.) To which his reply was: 'No, nothing is a pity which God sends upon us. Don't you believe in fore-ordination?' (Laughter.) That, he respectfully submitted, was the true spirit of the Gospel—resignation to the ills of life; and not this unseemly and rebellious talk about being able to resist the allotments of ill health." After many warnings to them in the name of "piety," "religion," and "the interests of Zion," the Deacon resumed his seat.

Every eye now twinkled as Abdiel Standish—the Yankee Nemesis of Deacon Snipp—stood up to speak.

"I hope, my friends, that I ain't wholly indifferent to the subjick of piety in the land: but the speech what we've just heerd 'minds me of a bit o' po'try my leetle boy read to me 'tother night out o' his last library-book. It's writ by a chap over to England which they call Tom Hood. It goes suthin' like this:

"'A man may cry church, church, at every word,
With no more piety than other people;
A daw's not reckoned a religious bird
Because he keeps a-cawing from the steeple.'

"Now I rec'mend that leetle hymn to my friend the Deac'n. I hope he'll meditate onto it when he goes hum to-night. He has a good'l more to *say* 'bout piety than most folks; perhaps that don't 'xactly prove he's *got* so much more. (Laughter and cheers.)

"He tells us that the ancient saints used to 'xcept sickness as providential; and he's told us a bit o' his own hist'ry to show that there's one ancient saint still a livin' in the airth. He seems to think it's agin the will o' providence to try to stave off disease. Wal, that's 'bout like some Scotch folks onct, that wus so pious, when fannin' mills wus fust introdooced, that they denounced the machines as atheistikil. They said fannin' mills was gittin' up a breeze when the Almighty willed to hev a calm. (Great laughter.) So I s'pose the good Deac'n here thinks that gymnasiums are atheistikil for the same reason; they is fur gittin' up a good digestion when the Almighty wills to hev a stumick-

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ache. (Roars of laughter and loud cheers.) Now I respeckfully say to the good Deac'n that, in my humble opinion, when he tells us that diseases is sent onto us by the Lord, he's just slanderin' and blasphemin' the Lord. I don't b'leive no sich doctrine. I b'leive when God 'lmighty made our bodies he knowed what he was about; he made 'em A1, fuss-rate machines, to go and b'have 'emselves, ef we'd only treat 'em well; and ef the machines git out o' order, through our own selfishness or willful ign'rance or sin, that's *our* fault, not his'n. (Cheers.) I don't b'leive it's the will o' God that his young 'uns here on the airth should suffer so. I b'leive all these sufferings come, not by the will o' God, but the will o' the Devil and the sin o' man. Diseases sent on us by God? Why, it's perfeckly shockin'! No, they comes from dirt, and laziness, and bad air, and bad ancisters, and food that is jest heathenish, and whisky, and other pizins o' one kind and another! (Cheers.)

"Deac'n Snipp says let this money be given to the poor heathen. Wal, I remember a readin' in a sartin blessed old book I hev to hum, that when the woman came to Jesus havin' an alabaster box o' precious ointment, and paid her 'omage to him by pourin' of it upon his head, his disciples 'had indignation,' and said, 'this ointment might have been sold for so much and given to the poor.' So it's very convenient for folks now-a-days, when there's a Messiah to be honored and obeyed in our own hearts and lives, to say why ain't this here money given to the heathen?

"Ez fur Dr. Drugger, I've got a few words to say to him. He's made a very larned speech to us to-night; he's talked a leetle Greek to us; and then, as he knew we wus a crowd o' ignoramuses, he's translated it for us, and he told us 'twas suthin' said by an old chap named Galen, who he calls one o' the old fathers o' medikil science; but, ef that's a specimen o' what he knew, I should think he was one o' the old grannies o' medikel science. Wal, I don't know as I can blame the Doctor much for his opinions. I s'pose ef I was a doctor I should want to hev lots o' business, and should look onto the buildin' of a gymnasium with great alarm. Don't that great poet, Mr. Shakspeare, somewhere say suthin' 'bout 'Othello's occupation's gone?' Ef we git gymnasiums all about, I s'pose the doctors will be very much in the fix that Othello was. That's prob'ly what's the matter with 'em." (Great laughter and applause.)

This speech carried the night. The motion for the adoption of the resolutions was put to the meeting by the Secretary and carried by an immense majority, and the Executive Committee of twelve were appointed on the spot.

So ends our village meeting. It seems to me the greatest event that ever happened in Brawnville. The good cause speeds on!

[TO BE CONTINUED.]

WHEN AND WHERE DOES THE DAY BEGIN?—As we travel eastward the day begins earlier; near the equator starlight appears an hour earlier for each thousand miles going east. When it is sunrise in New York, the people of Europe have had sunlight for many hours, and the Californians are still in their beds dreaming. Evidently the day has a first beginning, and at the eastward. But how far and where? What are the people who first see the light of Monday morning?

It is the sun which brings the day; where does he first bring Monday? If we could travel with him we might find out. Let us suppose the case. We will take an early start: at sunrise on Sunday morning, with the sun just at the point of peeping over the horizon behind us, we travel eastward. As we go, the people give us a Sunday greeting; we bring Sunday with us to Pittsburg, St. Louis, Salt Lake, San Francisco. At San Francisco our faithful chronometer informs us that we have been on the tramp about five hours. But we started on Sunday morning and it is Sunday morning still. We go on, still on Sunday morning. Will this Sunday morning ever end? The quiet Pacific knows very little of Sunday or any other day, and our question scarcely receives an echo for reply. When we get to Yokohama in Japan, or Shanghai in China, we search for some Yankee, wide awake in the early morning, and we are told for the first time that Monday has come. Everywhere now we bring Monday, and in twenty-four hours by the chronometer after starting, we are in New York again, and find the merchants taking down their shutters, and the Monday newspapers telling us what has happened during our absence.—*Scientific American.*

BE just, as sincere equity supports the human race. Be good, as bounty attaches every heart. Be indulgent, since thou livest among beings weak like thyself. Be modest, as pride hurts the self-love of every human being. Pardon injuries, as vengeance engenders hatred. Do good to him who injures thee, that thou mayst show thyself greater than he, and also gain friendship.

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Figs of Thistles.

BY PHŒBE CARY.

As laborers set in a vineyard
Are we set in life's field,
To plant and to garner the harvest
Our future shall yield.

And never since harvests were ripened,
Or laborers born,
Did men gather figs of the thistle
Or grapes of the thorn.

Even he who has faithfully scattered
Clean seed in the ground,
Has found, where the green blade was growing,
Tares of evil abound.

For labor ends not with the planting—
Sure watch must we keep,
Since the enemy sows in the night-time,
While husbandmen sleep.

And sins all unsought and unbidden
Take root in the mind;
Vile seeds are they, choking the blossoms,
Chance-sown by the wind.

But no good crop our hands have not planted
Doth Providence send,
Nor doth that which we planted have increase
Till we water and tend.

By our fruits—whether good, whether evil—
At the last are we shown;
And he who has nothing to gather
By his lack shall be known.

And no useless creature escapeth
His righteous reward;
For the tree or the soul that is barren
Is cursed of the Lord.

Uses of the Human Body.

BY REV. HENRY WARD BEECHER.

Every man is bound to take care of his body with the great doctrine of Christian uses as the end and aim which he is to keep in view. We are to have a reason, not simply of self-gratification, not of vanity, not of pride, why we should make as much of the body as possible.

I like to go past an engine-house and see the firemen, even if they are rude, and if they do sometimes forget their manners, and shout out my name when I pass by them, as they did yesterday—I like to go past an engine-house and see these rude sons of industry fondle and pet their engine. Sometimes I think it is their little god. How they rub it! How they clean it! How they oil it! How they put flowers upon it! Why? They know what it can do. They are proud of it. They have seen it play. They have seen how well it performs in the hour of danger. It has *stuff* in it. It is a brave engine. They personify it, and give attributes to it. They love it. They talk to it. And they rub the brass and clean the leather, and keep every thing all right about it. And I like to see it; because it is the radical quality that they like. It is its ability to perform. It is its real executive power. For that's sake it is that they work it up, and shine it up, and like it, and pet it, and almost idolize it.

Now, I don't object to a man's taking care of his body in the same way, if it is worth any thing to him and the community. I do not object to curls, and a fine skin, and all manner of decorations; I do not care how clean you keep the body, or how much you perfume it, or how richly you clothe it; rub it, decorate it, let flowers hang on it, if you wish—only let it be worth something. But to see a man that studies complexions, and locks, and fine linen, and fine cloth, and fine boots and shoes, and that makes the body a mere wax figure, a mere doll, instead of a thing of use—how contemptible that is! That is what I understand by being a *fop*. If a man has a body that means something, and his bones are bones for use, and his muscle is brawn for use, I do not care how much pains he takes with it. I like him all the better if he is proud of it, and washes it, and cleanses it, and perfumes it, and makes it supple and beautiful. If his care of it has reference to uses that he wishes to put it to, then it is worthy of it. But for a man to take care of his body merely because it is *his* body, and not because he has any thing to do with it—that is mean enough.

I like to hear an engineer talk to his engine. I think that the next things to men are machines like locomotives. If they should, by some accident, be transmuted, and be endowed with thought and intelligence, I tell you, they would make grand men! And when I am traveling, I think they hardly ever stop to wood and water that I do not go out and see what the engineer is doing with his engine. I sometimes think there is about as much intelligence at one end of the train as at the other! I notice how closely he inspects the various parts. I have sometimes crept under the wheels myself when something had given way and they were repairing the damage, and seen with admiration how clean the very bottom of the engine was where nobody looked at it; how all the axles,

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and boxes, and parts were cleansed and in order. And I have often said to myself, "I wish I could make my people take as good care of their bodies as this man has taken of his iron horse to-day."

Now, there are thousands of men whose body, the only engine they have, is clean, and polished, and in perfect order outside, but inside is neither clean nor polished nor in good condition. The consequence is, there is not one man in twenty that is fit to run in any emergency. Men do not seem to think that their machine, the body, ought to be looked after and watched as the engineer thinks his engine ought to be. I think it ought to be. I think every joint and muscle and nerve ought to be looked after. Every organ and every part of the human body is worthy of as much study as any part of a locomotive—and for the reason that God made it for you, and made uses for it that are worthy of your consideration and would have you take care of it. No man has a right to neglect a machine that is in his charge, and you have no right to neglect your body. You have no business to be sick, if it is owing to a want of watchfulness or to a want of care on your part. And yet, how very many are not as careful about their bodies as the engineer is about his engine! What would be thought of an engineer who should keep his engine in a slovenly manner, and allow the various parts to become dirty and to get out of order? How long would he be tolerated by the superintendent of the road on which he was employed? And yet there is as much excuse for him as there is for a man that neglects his body.

Men sometimes say: "I can not do so and so, because I do not feel very well to-day." You ought to be ashamed to say so—and that, not on scientific grounds, but on religious grounds. God has made that body of yours for purposes of use, and has given it enough to do of things that are noble. Society needs it and you need it. And you have no business to let the old engine rust out for want of employment, nor to let it get out of order through neglect or abuse.

Why, the very men that you despise ought to put you to shame. Hiram Woodruff died recently. I do not know that he was a pattern of morals in many things; but when he had a horse in his hands he never thought that any pains was too much to lay out on the animal to bring him into the best possible condition. He studied his diet, that he might feed him right. He sifted his oats that he might not eat the least dust. He washed and selected his food with the utmost care.

At a place where they train horses in Kentucky, they have a man picking over hay to separate from the mass the most succulent portions, and feed only those portions to the animals. And it is worth their while to do this, when a second makes a difference of thousands of dollars in the price of a horse. When it is a horse, men study his constitution, his habits and his food, and take every pains to bring him into that condition in which he can perform his very maximum of work.

But you, who are made in the image of God, who are set apart as temples holy and sacred, who were fashioned and framed for enterprises that affiliate you with the angelic band, whose work, beginning here on material substances, runs forward and links itself with the things of eternity—you do not think it worth while, for the sake of God and immortality, to do to your body what men think it worth while to do to a horse! I do not blame them. I think a horse is worth all this care. But how much more is a man worth than a horse!

I do not know whether you do such naughty things as to read accounts of boxers. I do. There is nothing that a man does in this world that I do not feel interested to find out about. I have read the whole history of their training with the most minute attention, and gathered a good deal of profit and self-rebuke therefrom. When a man is going to bruise his neighbor's face, when he is going to put his body to one of the worst of uses, he forswears all liquors, he avoids every excess, he gives up various pleasures, and brings himself down to habits of regularity and temperance. His diet and sleep and exercise are all controlled by scientific principles. His liver, his stomach, his brain, the pores of his skin, the various parts of his body, come under thorough instruction for the sake of enabling him to hold out and inflict the greatest amount of injury on his opponent. It is astonishing what discipline will do for a man, and what a high state of perfection he may be brought to as an athlete.

Now, the Apostle had that in his mind when he was speaking about gymnasts and athletes. He said: "Every man that striveth for the mastery is temperate in all things. Now they do it to obtain a corruptible crown; but we an incorruptible." Do you take such pains to fit yourself for obtaining the incorruptible crown as boxers do to obtain the corruptible? Do you think about training for your work as the athlete does about training for his? There is not one young man or one young minister in a hundred that is not surprised at the idea of eating

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and drinking and sleeping and talking and living with a constant view to the good of others. It is very seldom that you find a man who has taken a summation and inventory of his life-power, and who administers it night and day so as to avoid excess, and so as to store up the utmost vitality in it, and bring it to bear in such a way as to achieve in life the greatest results that it is possible for him to achieve socially, morally and intellectually. Indeed, I think most men throw away more than half of their vitality. They do not know how to economize it, or apply it, or use it. Men are spendthrifts through ignorance in this regard. Ministers and physicians and lawyers could do twice as much work if they knew how to wisely employ their forces. Most men do their work over about three times. First they do it by anticipation—thinking about it, and thinking about it; then by reality; and then by rumination—thinking it over after they have done it. Men wear themselves out with care and fear and anxiety; men wear themselves out with trudging up hill, because the body is in such a low condition that that which they ought to do by intuition they have to do by laborious research. Men insist upon boring through hard oak to get a miserable peep-hole through which to look at the truth, when a whole window, crystalline and transparent, is before them, if they only knew how to use it.

A high bodily condition gives men the power to think and execute better. And when the millennial day comes, among the signs of it will be the fact that men understand their bodies; that they know how to bring them to their highest condition; that they know how to make them perform the maximum amount of work that they are capable of performing, without wasting and abusing them; that they know how to fill up what they do with double the quantity of exertion that they now know how to put into it. But this will not be until men know how to consecrate their bodies and make them holy in the sight of God. And I do not know of any questions that need to be treated more in Charity Schools, and Mission Schools, and Young Men's Christian Associations, than bodily questions.

Young men come into life not knowing the meaning of their passions; without knowing the laws or the drift of their appetites. Many times through ignorance they fall into habits that drain their very life-blood, and undermine their whole constitution. And when they come to years of discretion, so as to know what is wise and what is unwise in the care of themselves, the work is done, they are damned, and they can not be restored. There are thousands of men who, for the want of a mother to talk to them, for the want of a father to teach them, have utterly destroyed the vitality and taken out the very stamina of their life.

Now, somebody ought to teach somebody to teach somebody else. If there are no Christian physicians in the land to teach young men what is the organization of their bodies, what are the metes and bounds of indulgence, and what is the meaning of those secret sins and pleasures which carry hell in them, it seems to me that the place where these things ought to be taught is Young Men's Christian Associations. If they are too delicate to be taught by preachers in the pulpit, they ought not to be so delicate but that somebody can teach them somewhere.

A true and full Christian worships God with spirit, soul and body. That is, a full worship is one which includes in it all the agencies that go to constitute true manhood.

I remember once being alone for an hour or two on the top of Mount Washington. I separated myself from the party that I was with that I might be alone. And I recollect distinctly that in that high mountain air, with perfect health, and with the most exquisite sensibility to every thing that there was around me, I had the feeling that in the mere consciousness of physical health there was more pleasure than most men are able to get out of the whole round of artificial society excitements. I was struck with how much the body has of pleasure in animal health. You see it in children, in the young, in their exuberant overflow of joy in mere motion, in the simple act of bounding.

Now, the body ought to be kept at that state in which its joy, its overflow, shall be, as it were, an offering unto God. Health, and pleasure in health; activity, and fruitfulness in activity—these are not prayer, but they range themselves right along by the side of it. I am not speaking of their relative importance, but of their moral quality. Where a man has physical excellence which results from watch and care, and where he has a conception of his body as consecrated to God in such a way that he keeps it pure and sweet and clean and healthy all through, and makes it musical with joy, he is constantly rendering praise to God; he worships God continually.

A new light is thus thrown upon the shame and guilt of bodily dissipations. There is great glory in presenting our bodies living sacrifices. Let me open that a little. A mother is some-

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times called to watch over her children in sicknesses for which she is not responsible, though the community may be; her house is turned into an hospital; she is deprived of rest by night and is overtaxed by day; perchance she is low down in life, a martyr to the household, where God will find his chiefest and noblest martyrs in the last day; and her sacrificing her life under such circumstances is beautiful and worthy of praise. A warrior may perceive that the exigencies of the service demand not only that he should dwell in malarial districts, but that he should tax himself days and nights without rest, or that he should offer up his body in battle; and if the end be good, it is a living sacrifice most noble that he makes. A patriot may perceive that his country will live by his dying; and he may offer himself for the welfare of his country; and the offering is a most noble one. Nothing can be conceived that is more noble than the despising and treading under foot the body under such circumstances. Nothing is fit for a gift except that which is worth keeping. By as much as the body is beautiful and powerful and noble in its right uses, it becomes fit to be offered up to God, in one's country, or in one's household.

But what an awful and wicked thing is the other kind of sacrifice which men make of their bodies to devils! What an awful thing it is for a man to count himself only fit to associate with the animal kingdom. How many men there are that are burning secret fires of death within them! How many men there are whose passions are poisoned! How many men there are whose whole systems have been unstrung! How many men there are who gluttonize life away! How many men there are who consume their life with intoxicating drinks! How many men there are who by various excesses are taking out the pabulum of the body and destroying themselves! And by as much as it is noble to make a living sacrifice of the body for a noble cause, by so much it is despicable to make a living sacrifice of the body to lying courses and wicked ways.

I appeal, therefore, to every man who has children to rear; I appeal to every mother who has a family that is largely dependent upon her for guidance, whether it is not time that there should be more instruction in the household in respect to the uses of the body. I appeal to all those who are imparting intellectual and spiritual instruction to the young, whether there is not something more to be taught. Is there not something more fundamental that should precede and accompany these instructions?

Letters to Ladies.

BY MRS. E. B. GLEASON, M. D.

LADIES—We will next consider the culinary department, to see if there are any means of curtailing our labors there or of accomplishing them more easily. As the first means to this end let every young lady serve an apprenticeship in the kitchen before she assumes the responsibility of overseeing one. Many a girl who stood "first head scholar" at the academy or seminary, and afterward graduated with honor at the best college for young ladies, has no real knowledge of household science, even when her mother was a pattern housekeeper. Parents, in their zeal to educate their daughters, keep them so constantly in school that they have neither time nor strength to learn domestic duties. One may as well try to teach mathematics before they can solve the problems perfectly and promptly as to expect to keep house successfully before they know by practical experience how to dispatch correctly its duties. No matter how able they may be to supply themselves with servants, they will be "bothered" with the ignorant or duped by the designing, unless they are in *reality*, as well as in name, "the mistress of the house." One says: "I mean to have a housekeeper, so as not to be troubled with domestics and their duties." But where will you find one? I know a host of women who *want* just such a barrier between them and household care, but *very* few who find them. Now, much as we rejoice in the growing facilities for mental cultivation among women, we feel that no amount of classics, mathematics, music and painting, can make up for the lack of good health, good sense, and the good business ability necessary to make housekeeping go on with comfort and economy. Many a young wife breaks in health, breaks in spirit, just here. She is vexed and worn with duties the detail of which she is not familiar with, and so when things go wrong she does not know how to right them. She can not guide others in work with which she is not herself acquainted.

Many a young wife is worn out with the care of housekeeping before the birth of her first baby even. Many a bride prefers boarding because she feels inadequate to the care of a house. And so the best time for two impressible young hearts to assimilate and adjust themselves to each other in their own quiet home is lost in the general dissipation of hotel life, where new and fascinating acquaintances are formed, and so husband and wife grow unconsciously less

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and less to each other, instead of more and more indispensable. "Young married folks" having the right spirit are much happier paring apples out of the same pan in their own kitchen corner of an evening, than playing cards and sipping wine in the finest public parlors. Many women not educated in domestic economy make most excellent housekeepers, if they go about it with energy and cheer and have in the husband a "helpmeet." One of the most successful women as a wife and mother that I know of tells me that her husband gave her the most instruction she had in housekeeping; that when she began she knew nothing; but that he, though a physician, was brought up on a farm and hence knew about home duties, and being some years older was to her husband, doctor and mother, till she got established; so their home life, with their many children, has been a very happy one. "But," she said, "I remember too well my own embarrassments to let one of my daughters grow up ignorant of domestic work." This husband is a man of courage, cheer and self-possession, and he could take his feeble young wife and care for her health and grow her into household duties, and so she has made him not only a sweet and sunny wife for twenty-five years, but a very useful one, though so delicate at the time of her marriage that the old family physician said she "must soon die of lung disease." For all his thoughtful care during the first years of their wedded life she has more than repaid him, not only in her loving devotion but in her success as a mother, in bringing up so well a goodly number of sons and daughters, and also as a business woman in her care of home finances, leaving him at liberty to devote himself to his profession, in which he has grown eminent. Now there is here and there a husband who can steady and strengthen his wife through the embarrassments incident to getting started in housekeeping, when she lacks both health and intelligence for the work, but I fear they are rare. Often both parties get discouraged and estranged in their first effort to make a home together. The wife gets nervous and hysterical; the husband at first sympathizes, and thinks his dear Demara is too delicate, too etherial for domestic work; but by-and-by, when he can't get any one who can roast beef and bake bread satisfactorily, and his means are unequal to the home demands, he begins to feel that his wife ought to see to things as his mother does.

The poor child says: "My husband don't sympathize as he used to, and—and—and"—well, we know more of these home troubles than it would be pretty to tell. Having stood as *mother* "confessor" for invalid wives and troubled husbands for many a year, we feel that poor health and poor housekeeping has had much to do with the flood of calls for divorce on the ground of "incompatibility of temper." Of course, a blunder now and then at the beginning gives a good laugh, and where there is real business ability one will soon be able to adapt themselves to a new girl, or no girl, as the case may be. A husband once said that he lived on dough until his wife learned to bake, as he could not afford to hire a girl, and she finally made an excellent cook. Another told me that his young bride, hearing him say that he was very fond of pie-plant pie, thought she would give him a pleasant surprise by making him one for dinner. It proved indeed a surprise, for he found between the two crusts only a leaf of his favorite plant. And he, too, gave me the pleasant assurance that his wife had come to be an adept in the culinary art.

If housekeeping is commenced first in a small way these deficiencies in early training can better be overcome and outgrown. But when they begin first on a large scale they seldom get a good start, and so are never adequate to their position. One of the great embarrassments to young housekeepers—and a weariness to those of experience, even—is our complex cookery and the great variety at each meal. Many articles waste the strength in the making and more still in the digesting. Pickling, preserving, and all manner of "fancy fixings" for the table are a great tax upon the wife, first in the preparing, and next in the nursing of those who eat them. Make all table arrangements simple and healthful every day, and if friends come set before them the same, and thus do away with all weariness of "cooking for company." Children who grow up on plain food seldom relish compounds and condiments. Those, too, who have held their appetites in subjection to their intelligence usually come to enjoy simple food better than any other, after a little self-denial in starting. Bad dietetic habits often spoil the appetite as well as digestion. Any pleasure indulged in to excess ends in privation and pain. Now the good father not only made it necessary for us to eat, but has so made us that we may take comfort in eating and in the digesting too. But when we think more of the momentary pleasure of the palate than of permanent results, then we truly "sell our birth-right to health and happiness. Artificial appetites induced by over-stimulating food are very unreliable. Now and then something will

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relish, but the real, regular pleasure of eating is lost. "Wisdom's ways are ways of pleasantness." Grace before meals, grumbling while eating, and groaning after, is an inconsistent order for a Christian household. Indigestion is quite sure to make an unreasonable character, whether at the dinner-table or elsewhere. Truly, there should be some way of living by which an intelligent family could have other table graces than the one said at the beginning. Let the lady of the house come to the table looking weary with overwork in preparing the meal, and feeling worried for fear it will not please; then some complain because food does not relish, and others express fears that it will not digest, and nothing short of destitution makes a more desolate domestic picture. Our friends will not suppose that we are advocating the hunger cure, or any rigid dietetic system. All these means are good when applied to the right patient, but very bad when adopted by the wrong one. Hence, any one needing such remedial means should be under the eye of some judicious adviser. But these letters are only to be suggestive as to general habits, and not to meet specific cases.

To those in health bountiful Mother Earth has given an extensive "bill of fare," which is good to be eaten with thanksgiving and digested in the same spirit. No table should be a temptation calling for self-denial or leading to misery; but a time for many comforts, eating with relish, chatting with cheer, and now and then a good joke and jolly laugh. Let all troublesome topics be avoided at meals. Do not dwell on the difficulties of business, the delinquencies of domestics, or discipline the children at the dinner-table, for a cheerful spirit not only gives relish for food but a good start at digesting the same.

Much of the nervous unrest and over-anxiety of the women of this generation is due to the excessive use of tea. "Our grandmothers" drank it and worked it off through the muscular system; but those of this age, with brain and nerves more sensitive, and engaged in pursuits which intensify this condition, are rendered more excitable by stimulants, which, under other circumstances, might be used with much less harm. Women who do much manual labor drink their tea, do their work, and sleep well; while those are very nervous and wakeful whose employments are sedentary or such as induce more mental than muscular activity. I have known many of the latter class who lived largely on their tea, eating little food and growing thin, sensitive and sleepless, sharp in face, sharp in feeling and often in words too.

Some years since a lady was brought to us who had been confined to her bed, chiefly, for several months with what the doctor called "a slow nervous fever." When she came I found "the nervous fever" indicated by the small, sharp pulse, dry skin and restless eyes, but the precise cause was the mystery, no organ being diseased sufficiently to induce this febrile excitement. My curiosity and surprise were still increased to find that under our regimen it vanished entirely in a few days. On further inquiry as to all her habits, I learned she had eaten little or no food, and taken tea five or six times a day, as she felt the need. When this was removed she ate well, slept well, and from week to week grew plump and cheerly as a child. When she had got quite well she went out to tea in town, drank it, and had her usual restless night, and from that time to this the same beverage brings the same result. Every year I am more and more surprised to see the number of women and children who are suffering from loss of appetite, loss of sleep, and that peculiar irritability which comes from the two combined, and yet have no idea of the cause, for they say: "I never dreamed black tea hurt any one." Now this same black tea may be excellent to help one through an emergency, when rest is needed and can not be had, just as you would put spurs to a horse to win a battle or meet a railway train; but to ride at this rate long would be ruinous to man and beast. Just so our women, spurred by this stimulant, rush on when they should rest. Tea may be one of the good things when used to steady and strengthen the nervous system when depressed by accident, severe sickness or overwork; but those who live on it live too fast, and, when they have once come to rely upon it, feel weak and worthless without it, and with it grow more and more nervous still, wondering why, because they fancy their "breakfast tea" is as safe to be drank as new milk at all times of day and night. Black tea is less stimulating than green, consequently less injurious, but even this will not do for "victuals, drink and lodging," as the Irishman said of his whisky. As to coffee, all know it is injurious in many ways, save those who,

"——convinced against their will,
Are of the same opinion still."

So much has been said about diet, that it is not intelligence as to what is best for us so much as a conscientious co urage that is wanted on the

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part of women to hold their table subject to the laws of health. They do not want their supplies to seem scant, or to appear unskilled in the varied mysteries of the culinary art. I have just received a letter from one of the readers of THE HERALD OF HEALTH, who appears to think I am laying the responsibility of healthful home habits too heavily on womanhood, and she writes thus: "Belabor well the fathers, husbands and brothers, as well as their female counterparts, for here, I opine, lies half the mischief." Well, may-be so. Every one speaks from their own point of observation. For our part, the fathers, husbands and brothers to whom we have been most nearly allied, have been more ready for all manner of reform in diet, dress and household arrangements than we have—in short, always ready to plan so as to make it easy for the "women folks," and are not only a help, but "the head of the house" still.

From the number of men deep in disastrous speculations who are trying to keep strength up with brandy and nerves quiet with tobacco, and of those whose faces show they are living for sensual pleasures only, either in high life or low, we have no doubt but that many women find around the social hearth and domestic board some very unreasonable male members. Beside these big sinners there are doubtless men, as well as women, who lack moral courage to sustain the sisterhood in any custom contrary to that which society usually sanctions. There are men, too, who seem to have a chronic habit of complaining of women. They are like the crusty old deacon we knew in Vermont, who said: "Women, from Bible times till now, were always a plague when one was in trouble. Now," said he, "there was poor old Job settin' down in the corner all covered with biles, and what did his wife do but open the door, stick her head in, with her dish-cloth in her hand, and say: 'Job, cuss God and die?'"

For all women whose lives are shaded and labors hindered by any of the above class we have a heart full of unspoken sympathy; but we do not think we could help such by "belaboring" the men in these articles. It would be like preaching to people who are not present, for who expects any gentlemen to read these "Letters to Ladies." But seriously, we have great faith that every wife, mother and daughter can do much toward ordering "well the ways of her own household," if she goes to work with a wise head, a warm heart, and in a womanly way. Men have an innate kindly consideration toward genuine womanhood, when it is not drowned by drunkenness or debauchery, and even then it often shines out beautifully, like the lucid moments in a wild delirium.

So every woman who so lives as to inspire confidence in her good spirit, good judgment and good business ability, gives daily a living epistle "known and read of all men" about her, which will have tenfold more influence than any *I* can write. "Her children rise up and call her blessed; hor husband, also, and he praiseth her." I have indulged in this addendum as an answer to other ladies who may be feeling like the correspondent above mentioned.

ELMIRA, *June*, 1867.

An Interesting Case.

MR. B. M., aged sixty-six, has suffered for thirty years from dyspepsia, cough, catarrh, attacks of violent headache, diarrhea, piles and debility. At the commencement of this morbid state he was bled by an old-school physician every Spring for five years to relieve his attacks of headache.

He has been subjected to all kinds of Allopathic dosing, up to the time of his employing Homœopathic treatment, thirteen years ago. He had always been accustomed to the use of tea, coffee and meat (mostly pork), but during the last ten years had abstained from the use of coffee. He never used tobacco or alcoholic drinks in any form. While making use of tea or coffee, he usually took two or three cups of coffee at breakfast, and two cups of tea at both dinner and supper.

Violent heartburn, sinking turns, with fainting and debility, were his daily symptoms at this time, which could be relieved for a few hours only by a still stronger cup of tea or coffee. During the ten years he abstained from coffee he still continued the use of tea and meat twice or three times a day, having less headache and heartburn than formerly.

He has been all his life a man of active habits, except when compelled by the severe attacks of headache, diarrhea or piles, to keep his bed for a day or two. One year ago the 4th of April last he began to abandon his free use of tea, meat and medicine. For several weeks before making this change his disease had been gradually increasing in severity. The secretions from his head and lungs were very profuse, offensive, and of a dark yellow color, being discharged mostly in the morning. His friends have for years believed his catarrhal symptoms

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would soon lead to consumption, and his physicians have often expressed a similar opinion.

Soon after he discontinued the use of meat and tea his health improved, and now, at the end of nine months, he has gained so rapidly in health, strength and complexion, that his friends daily remark his great change for the better. His cough, diarrhea and piles of such long continuance have gradually disappeared. His catarrh has changed from its previous yellow consistency to a thin, white and comparatively healthy condition, only remaining a little more profuse than the natural secretion would be in health.

He has not tasted tea or meat in nine months.* His food has been bread and butter, potatoes, hominy, rice, good fresh fish, cracked wheat and cream, ripe and dried fruit, and plain pie and cake. His only drink during the time has been wheat-bran coffee, cold water and milk.

For seventeen years he has been without his natural teeth, and has not had the benefit of artificial ones. For fourteen months past he has been accustomed to ride daily from one to five hours in the morning, during both the coldest and warmest weather. His sleeping-room has been for the same length of time well ventilated by an open window both night and day. His hair, that years ago became very white, has during the past few months partly returned to its original dark color, especially on the back part of his head, showing a great increase in its nutritive health. Water has not been employed in his case, except for the purposes of cleanliness and to allay thirst. He can at this time endure a greater amount of physical and mental labor than at any previous period in twenty-two years.

It seems a careful observance of Hygienic laws has done more in a few months toward curing this patient than eighteen years of Allopathic drugging, or twelve years of Homœopathic medication without Hygienic attention.

Should any physician be hereafter induced, by this narrative of facts, to persuade even one of his patients to abandon habits of living or articles of food and drink which increase disease, and to better obey the laws of nature, thereby obtaining and preserving health, my object in forwarding this history for insertion in THE HERALD OF HEALTH will have been accomplished.

T. L. BROWN, M. D.

*The history of this case was written thirteen months ago, since which time the patient has continued the same course of living, with the agreeable reward of increasing good health.

Hints for Improving the Voice and Strengthening the Lungs.

BY PROF. C. S. ROYCE.

THE Radical and the Median Stress formed the subject of the last article. It was said there that when force is applied at the conclusion of the sound, the stress is called Vanishing or Final Stress.

The Vanishing Stress is used for the expression of defiance, indignation, complaint, coupled with determined purpose or firm resolve; also for expressing peevishness, alarm and kindred emotions.

As the Radical Stress requires the natural movement of coughing for its production, so to produce the Vanishing Stress requires the natural movement of sneezing. To obtain an idea of this stress take the following passage from Webster, and read it with earnestness and spirited resolve:

"On such occasions, I will place myself on the extreme boundary of my right, and bid defiance to the arm that would push me from it."

Read and re-read that passage. It will be observed that the force on all the important syllables is moderate in the commencement, and that it increases to the close, where it is stronger than at any other point; or, when that is not practicable, the force is thus increased through the vocal element of the syllable. Train the voice and the ear by thus repeating this and similar passages for a time, and then as before take the vocal elements of the language and practice upon them separately. It will often be well to exaggerate this stress upon the vocals, as it is a more difficult form of stress to master than either of the forms treated of in the preceding article. As in other undertakings, perseverance will enable us to overcome these difficulties.

Many passages should be taken for practice—for which the reader is referred to the books. Shylock claiming his bond, and refusing to listen to Antonio, in the words:

"I will have my bond, I will not hear thee speak," etc.

is an excellent example.

Here is a good example:

"You may, if it be God's will, gain our barren and rugged mountains; but, like our ancestors of old, we will seek refuge in wilder and more distant solitudes; and when we have resisted to the last, we will starve in the icy wastes of the glaciers. Ay, men, women and

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children, we will be frozen into annihilation together, ere one free Switzer will acknowledge a foreign master."

The Compound Stress, or Stress in which the force is applied in the commencement and at the conclusion of the sound or syllable, while the middle receives but little, thus combining the Radical and the Vanishing Stress, on one sound or syllable, is used for the expression of surprise, perplexity, alarm, contempt, mockery, etc.

This familiar line, from Byron's "Battle of Waterloo," furnishes a good example:

"Arm, arm, it is—it is—the cannon's opening roar!

If this is read with the Radical Stress it becomes a firm command; if with the Vanishing Stress, it would indicate impatience; but if with the two combined, forming the Compound Stress, there will be an expression of surprise or alarm, or both, coupled with a command or an earnest entreaty, as the case may be.

Shakspeare and Milton furnish examples without stint for the expression of this kind of stress. We will leave the reader to look for them.

Thorough Stress, or stress applied from the commencement to the end of the sound, is used for the expression of vehement emotion of many kinds, as of joy, triumph, lofty command, sustained call, etc.

The opening sound in the Thorough Stress is not quite as abrupt as in the Radical Stress, and the closing sound is less abrupt than in the Vanishing Stress; but the degree of force demanded at the opening is sustained throughout the entire sound.

A fine example is to be found in "Milton's Paradise Lost," where the Arch Demon calls to his followers:

"Princes! Potentates!
Warriors, the flower of Heaven, once yours, now lost,
If such astonishment as this can seize
Eternal spirits,
Awake, arise, or be for ever fallen!"

Here is one from Pope:

"Lend, lend your wings! I mount, I fly!
O grave! where is thy victory?
O death! where is thy sting?"

When the emotions carry us to such an extent as to weaken or exhaust us—whether these emotions are those of joy, grief or pathos—or when we are overpowered by the sublimity of our thoughts, or when we are enfeebled by age or disease, our voices often assume a tremulous movement—we utter our words in a tremor, or with the Intermittent Stress. The Intermittent Stress may combine with any of the other forms.

These familiar lines:

"Pity the sorrows of a poor old man,
Whose trembling limbs have borne him to your door;
Whose days are dwindled to the shortest span!
Oh! give relief and Heaven will bless your store!"

when properly uttered, are pronounced with the Intermittent Stress, with the tremor of age.

Reading Bryant's "Hymn to the Stars," if to the Median Stress the Intermittent be added at times, the exultation will be more strongly expressed; or rather, if we so fully enter into the feelings of the writer as to cause the voice to become slightly tremulous, we will very much better bring out the spirit of exultation.

In order that the voice may easily give forth these tremulous sounds, it must be disciplined, except in a few cases where there is naturally great flexibility of the vocal organs.

To discipline the voice here, as elsewhere, there must be practice—practice upon elementary sounds, practice upon short passages, practice upon long paragraphs, practice in small rooms, practice in large rooms, practice in the open air—practice, *practice*, PRACTICE, in season and out of season.

DEFECTIVE NUTRITION.—Dr. A. J. Bellows of Boston, a venerable and much-respected physician, speaking of food, says:

"It is well known that our pale-faced girls, and our feeble-minded, toothless men, women and children, are brought into that condition mainly by living on sugar, butter and superfine flour, out of which have been taken the elements that make bone and blood, and give energy to the brain and nervous system, and the common-sense remedy for all these terrible evils is to be found in a simple resort to Nature's own storehouse abundance of wholesome food."

AMBITION often puts men upon doing the meanest offices; so climbing is performed in the same posture with creeping.

Small causes are sufficient to make a man uneasy, when great ones are not in the way; for want of a block, he will stumble at a straw.

Every man desires to live long; but no man would be old.

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The Deaf and Dumb.

BY HARVEY P. PEET, LL.D.,
PRINCIPAL OF THE NEW YORK INSTITUTION FOR THE INSTRUCTION OF THE DEAF AND DUMB.

NUMBER I.

PHYSICAL CHARACTERISTICS OF DEAF MUTES —CAUSES OF CONGENITAL DEAFNESS.

THE condition of the deaf and dumb has, from the earliest ages, presented problems of the highest interest to the physician, the philosopher, the legislator and the philanthropist. This calamity is so crushing that to parental love no pains or expense seems too great where there is rational hope of healing—yet even the prevention of deafness is very imperfectly understood; and its cure (when total or nearly so), except in some very rare cases, is admitted by the most experienced medical men to be utterly hopeless. The intellectual and moral condition of deaf mutes shows traits that may well serve in many cases as a crucial test for the correctness of many theories in intellectual and moral philosophy—those concerning the origin of languages, for instance. Classed by the Roman laws with idiots, it is only within a few years that their claim has been generally recognized to an equality of civil rights with those who hear. The melioration of their condition by education, at least that essential part of education which consists in their instruction in the meaning and use of written language, was held impossible by the wisest of the ancients. Though practiced with more or less success for now three centuries, the degree of success still, in many cases, falls short of our wishes; and the divergency of systems is remarkable in the practice of an art that ought to be, and may be founded on incontestable principles—theories radically different, and essentially at war in the means of instruction they exact, still divide not very unequally the three hundred schools for this class of learners in Europe and America.

Yet many of the able teachers who have devoted their lives to the education of the deaf and dumb, and many of the medical men who have zealously marshaled the resources of surgical science and of the materia medica in the hope of restoring deaf mutes to hearing, and in consequence to speech, have left us records of their experience and reflections—records already voluminous, comprehensive and highly valuable, though not very generally accessible; and only requiring to be carefully examined in the light of reason to enable us to set forth the true principles on which the instruction of the deaf and dumb should be founded, and to designate within what limits the powers of medicine may be tried with hope of success.

In the series of papers of which this is the first, I propose to set before the readers of THE HERALD OF HEALTH a general summary of the facts recorded by many observers, both in Europe and America, concerning the causes, consequences and alleviations of deaf-dumbness. Deferring to subsequent numbers the consideration of the intellectual, moral and legal condition of the deaf and dumb, I propose in this number to treat of their physical condition and of the causes and prevention of deaf-dumbness.

Deafness is not, like blindness, obvious at first sight. The full freedom of motion of the deaf man, at home and abroad, is restricted only by that necessity of greater caution in the streets and especially on railroads, which results from his inability to hear the usual warnings of danger. He is not, as is the blind man to a painful degree, placed at a disadvantage in any manual occupation, whether as a farmer or an artizan. Neither, as we believe, has the want of hearing any direct influence unfavorable to the health and physical development. The inaction of the lungs consequent on dumbness has been supposed to prevent the due development of those organs, but we regard this as at most a doubtful assumption. While, as we propose to show hereafter, deafness, regarded as an impediment to the development of the intellectual and moral faculties, to the transaction of business, and to social enjoyment, is one of the greatest of all human afflictions, still we do not think the deaf and dumb, in general, are physically inferior to those who hear. On the contrary, many of them possess superior dexterity in manual occupations, and in athletic sports,* resulting from that quickness of eye and hand natural to those who from infancy have been accustomed to depend on the eye alone. There are weak, slow, purblind and sickly individuals among the deaf and dumb, but the dullness and ill health of these are not the consequences of their deaf-dumbness.

If the uneducated deaf and dumb, even those of originally good constitutions, wear out, as we are inclined to think they do, earlier than their brothers and sisters who hear, it is only to be ascribed to that absence of moral restraint which is the necessary result of their want of early education.

* A year or two since, a base ball club composed of pupils of the New York Institution for the Deaf and Dumb was victorious in a contest with a club composed of the students of a neighboring collegiate institute.

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As the very fact of deafness implies either some original defect, or some severe shock to the constitution, and as deaf children often become delicate from excessive parental solicitude, or are injured by undue indulgence, it might reasonably be expected that many of them should be of feeble constitutions. Such cases, however, are the exceptions, and not the rule. Those who visit our institutions are apt to be struck with the cheerful, healthy aspect, well-developed forms, and free and graceful movements of most of the deaf-mute pupils; in these respects offering a striking contrast to the physical condition of the blind. The latter, however, have great social and intellectual advantages from their full possession of speech and unrestricted facilities for sharing in general conversation, and in public instruction, from which the deaf and dumb children are inexorably cut off.

That a community of deaf and dumb children and youth occupying a salubrious site, and subject to a proper hygienic regimen, will usually enjoy a degree of general health that will compare favorably with the average results in healthy communities of those who possess all their faculties, is demonstrated by the experience of many of the institutions of this class of learners, and notably by that of the New York institution. The recent visitation of fever in that institution (a calamity which it shared in common with several other public institutions in that part of the island; and which was due mainly to the insufficient supply of pure water, a want at last about to be supplied by the tardy action of the Croton Board), was entirely exceptional. The records of the twelve preceding years show but twenty-one deaths in an annual average of more than three hundred pupils. The annual average of deaths during these twelve years was only 1 to 182 survivors.

CAUSES OF DEAF-DUMBNESS.

Passing on to the causes of deaf-dumbness, it seems proper to remark that the true deaf and dumb are those who, by the want of hearing, and by no other cause, were prevented from acquiring speech in childhood; or if they had begun to make the acquisition, no longer hearing any answer to their childish prattle, no longer hearing others or themselves speak, gradually lapsed into dumbness. There is a class of deaf persons who became deaf after learning to speak, and in most cases after learning to read, who have retained and improved by reading and conversation the knowledge of verbal language which they originally acquired through the ear. Such persons are technically called *semi-mutes*. While the instruction of the true deaf and dumb was for many centuries held to be impossible, and is still a task demanding great skill, patience and perseverance—those called semi-mutes often make great acquisitions in language and in general knowledge, without any special instruction. This fact is a striking evidence of the immense value of the sense of hearing in childhood, and early instruction in reading.*

The respective proportions of those deaf mutes who were deaf from birth, and of those who became deaf by sickness or accident in childhood, vary in different countries, and in the same country at different periods. In our own country, thirty or forty years ago, it was estimated that more than half the deaf and dumb lost their hearing after birth. Later statistics show, on the whole, a small preponderance of congenital cases. In the Thirty-fifth Report of the New York Institution is given a general summary of the cases reported from the different American institutions down to 1853; the aggregates being born deaf, 1,812; became deaf, 1,569, unknown, 474. Allowing, however, for the large number returned as "unknown," and for the difficulty of determining, in many cases, whether a child was born deaf, or became deaf during the first year of its life, since the loss of hearing is not apt to be remarked at that age, and can not be ascertained before the age of six months, it may safely be assured that in this country not much more than half the deaf and dumb, including the semi-mutes, are such from birth.

These proportions are very different in Europe, so far as investigations have been made. In Ireland, by the Census of 1851, there were returned 3,484 congenital cases, and only 503 accidental. We might suspect this very large proportion of congenital cases to be due in some measure to a vigorous classification of all cases as congenital which were not shown to be accidental on clear evidence; but we find a like large proportion of congenital cases in other parts of Europe, except in some parts of Germany. The Census of Belgium for 1835, gave 1,484 congenital and 407 accidental cases. The census

* There have been several cases in which persons who became profoundly deaf in childhood have subsequently, by the taste for reading and study which forms the greatest solace of such a calamity, made surprising advances in knowledge, and have been more or less successful in the walks of literature. In Germany, O. F. Kruse; in France, Pelissier; in England, the late John Kilto, DD.; in America, James Nack and John R. Burnett, may be cited as cases in point.

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returns for other countries seldom give any indications of the causes of deafness, but such statistics are reported for the pupils of many European schools. The general summary of such returns, to 1853, is 6,740 congenital to 1,673 accidental cases, about four to one. The German schools, on the other hand, from which we have such returns, present a result similar to our own, summing up 320 cases deaf from birth, and 345 accidentally deaf.

From these returns is deduced the striking conclusion that, in Europe generally, the chances of the birth of a deaf-mute child are more than twice as great as in the United States, or 615 in a million there, against 278 in a million here; while the chances of the loss of hearing after birth are in Europe, except in Germany, much less than in the United States, to wit, 154 in a million there, and 222 in a million here.

Such statistical results as these form the data from which we must study the causes of deaf-dumbness. This striking contrast between the Old World and the New may be owing, in part, to climate; in part to the severe out-door labors imposed on women of the laboring classes in many countries of Europe; in part to idiosyncrasies of race. The European returns which show such a preponderance of congenital cases are chiefly from countries where the bulk of the population is of the Celtic and Latin races. We have very few such returns from European populations of the Anglo Saxon and Teutonic races, and most of those we have agree with the American returns in presenting a large proportion of accidental cases.

The causes of congenital deafness are as yet but very imperfectly understood. Where deafness is the apparent result of a known disease, or accident, it is comparatively easy to judge with probability of the mode of operation; but in most cases of congenital deafness we are left wholly in the dark, even as to the condition of the organs of hearing. They are too deeply seated for more than a very superficial examination in life, and opportunities for dissection of subjects known to have been deaf mutes rarely occur.

The general reader will perhaps thank us if we refresh his memory by a very brief description of

THE APPARATUS OF HEARING.

The crooked and narrow external opening, called in medical language the *meatus auditorius externus*,* or often simply the *meatus*, varying in size and shape in different individuals, is closed at the inner end by a sensitive and elastic membrane, called the *membrana tympani*. Creative skill, placing the membrane as a protection to the more delicate internal parts of the organ of hearing, has formed it to transmit every vibration of sound. Behind the *membrana tympani* is the cavity named the *tympanum* or drum. (The reader will bear in mind that the *tympanum* of the ear is not the same thing with the *membrana tympani*.) This cavity communicates with the back part of the mouth and nostrils through a trumpet-shaped tube, passing through its own perforation in the solid bone, by which the inner ear is inclosed and protected. This tube, the existence of which was scarcely known to the ancients, is named the *Eustachian tube*, in honor of one of the fathers of anatomy, by whom it was discovered and described about three centuries ago. The use of it is to supply the cavity of the tympanum with air; and, as some think, to enable a speaker to hear his own voice. Through this tube the tympanum may be filled with air by a forcible expiration, with the mouth and nostrils closed; and the ability to do this is a test that this important tube is free from obstructions.

Within the cavity of the tympanum is a series of little bones, named, from slight resemblances of shape, the *malleus* or hammer, the *incus* or anvil, and the *stapes* or stirrup. These bones are described as little levers, bound together and to the neighboring parts by ligaments, and supplied with muscles of a size corresponding to their own, that is, of the very smallest size in the human anatomy. Some think that these muscles have a voluntary power, and come into use when we endeavor to listen. This delicate apparatus is supposed to convey the nice variations of sound to the internal ear.

Deeper in the ear, on the inner side of the tympanum, is the *labyrinth*, which, says Dr. Wilde, "contains the ear-bulb or true sentient apparatus of hearing, to which all the other portions are accessory." This osseous labyrinth is "curiously fashioned" of the hard petrous or rocky portion of the temporal bone. During life, this true inner ear can neither be seen, operated on, or reached—unless the protecting membranes are destroyed—by any of the applications, liquid or other, so often put into deaf people's ears. A portion of this part of the ear is called, from its resemblance to a snail's shell, the *cochlea*. It would be out of place, in a paper like this, to give a minute description of parts so small, so complicated, and so completely hidden from view in life. Anatomists

* There is also a *meatus auditorius internus*, between the tympanum and the true organ of hearing.

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have filled many pages with descriptions of bony cavities, membranes, ligaments, muscles, veins, nerves, peculiar fluids, etcetera. We will only note that the middle ear has, like the other bodily organs, two sets of ordinary nerves, one for sensation and one for motion, besides the peculiar and transcendent treasure of the inner ear, the auditory nerve itself, which conveys to the brain sensations of sound, and those only.

Within the *osseous labyrinth* is the true organ of hearing—the *membranous labyrinth*, "a small bag," according to Dr. Wilde, within which the auditory nerve ramifies in numerous filaments. There are other nerves, it is said, of which branches go to the organs of speech, forming a connection between these last named organs and those of hearing. We trust this very brief and imperfect sketch may enable the non-professional reader to understand better some of the statements that follow.

MALFORMATION A CAUSE OF DEAF-DUMBNESS.

To return to the causes of congenital deafness. An obvious division is into those deaf from original defect or malformation and those whose deafness is caused by disease, or even accidents that operated before birth.

When we look into the special works on diseases of the ear, as those of Hard of Paris, Lincke of Leipsic, and Wilde of Dublin, we find such a multitude of cases of congenital malformation cited, imperfection, obstruction, and sometimes absence of every part of the organ by turns, now of the external ear, now of the Eustachian tube, now of the internal parts—as ascertained after death—that we should get the unpleasant impression that such monstrosities were very common, did we not reflect that these cases have been collected during a century or more from among many thousands of subjects. In ordinary experience, we doubt if one in fifty of the deaf and dumb has any noticeable peculiarity in the appearance of his ears, so far as the parts can be seen in life.

In a few of the deaf and dumb the external meatus is entirely closed. Such was the case of an early pupil of the New York institution, a bright intelligent lad, though marked with painful deformity of the head and face. He was able to hear imperfectly, through the Eustachian tubes as was supposed, and thus to acquire a very imperfect use of speech. In another case of the absence of the external *meatus*, recorded in The American Journal of Medical Science for 1837,* Prof. Murrey judged that the vibrations of sound were transmitted to the internal ear by the bones of the cranium.* The hearing of this individual is described as "too obtuse for low conversation, yet sufficiently good to prosecute his business" as bookseller. Dr. Wilde met with a case of a deaf mute in which the meatus was closed by firm bone; there was not on either side any external opening where the meatus should be. In two other cases recorded by Dr. Wilde the ear was closed in this way on one side only, the hearing being perfect on the other. Lincke cites a long array of similar cases, collected during many years in various countries. In one case, given on the authority of an English surgeon, Sam. Cooper, a child was shown as a wonder to many medical men in London, which had not the least trace of an external ear, either auricle or aperture. The state of hearing in this child is not mentioned. If it had any sense of sound it must have been very imperfect.

On the other hand, Dr. Wilde mentions, after Cassebohm, the case of a child furnished with two pair of ears, one pair in the usual place and the other lower down in the neck. Duplications, as well as obliterations of other parts are mentioned. Parts thus duplicated are apt to be feeble or imperfect.

It would make this article too long if we should go on citing cases of malformation in other parts of the organ of hearing. For the most part they are only demonstrable by a *post mortem* examination, though their existence can sometimes be reasonably assumed from their effects. In some of these cases, the internal ear itself remains in a normal condition; and there is a certain degree of hearing, in spite of the malformation of the less essential parts. These are the only cases that admit any hope of amelioration of the hearing.

Though in many cases of congenital deafness there is found an original malformation, or arrest of development in some important part of the ear, and in a very few the internal cavities were found filled with unnatural concretions, in the greater number of cases, so far as can be judged from those that have been submitted to a *post mortem* examination, there is no departure from the normal condition of any part of the organ. Even the peculiar secretions of the ear, the ear-wax of the meatus, and the lymphid *liquor cotunnii* of the labyrinth seem to be unaltered. In such cases, the cause

* As cited in a note to Dr. Wilde's book.

* Some partially deaf persons are found to hear better what is spoken at the back of the skull. This observation is of very ancient date. A special provision for such cases is made in the Code of Justinian.

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of the deaf-dumbness is assumed to have been in the auditory nerve itself. They are analogous to the kind of blindness called *amaurosis*, in which the only defect of the eye is that the optic nerve refuses to transmit to the brain the rays that still penetrate the useless orbs. This want of vitality, or arrest of development of the auditory nerve, is probably the most common cause of congenital deaf-dumbness.

The opinion has been advanced by some that there is no such thing as the true congenital deaf-dumbness; that is to say, that there is always in the embryo the germs of all the parts of the organ of hearing; and that when children are born deaf, this defect is due to diseases or accidents that operated before birth. In the present state of our knowledge, however, it is at least as probable that cases of malformation or absence of parts are to be considered as due to some original defect in the first germ of life, as that they should be ascribed to any causes operating during pregnancy. But of the diseases known to destroy the sense of hearing, while there are some to which the unborn child is not susceptible, there are others that may affect it before birth. For instance, "gatherings in the head" is quite a common cause of deafness in children, and the accumulation of humors may occur before birth, and may sometimes destroy the internal parts of the ear, sometimes disable the auditory nerve itself. Moreover, those affections of the brain, or defects of development, which in some cases result in paralysis, sometimes in idiocy, appear not unfrequently to paralyze the sense of hearing. And in such cases, deaf-dumbness is often complicated with the greater infirmities.*

Such cases, however, are the exceptions and not the rule. We think at least nine out of ten congenitally deaf and dumb children are equal in physical and mental organization to the average of those members of their respective families who possess all their faculties. Whatever difference may prevail later in life is due to the heavy difficulties which obstruct the early mental and moral development of a deaf-mute child.

The poverty of language compels us to use the word *cause* in two different senses. Thus far we have spoken of the *proximate* i. e. *immediate* causes of deafness; those obstructions of passages, defects of organization or lesions of organs that cut off the access of sounds to the brain. These are themselves *effects* of disease or of abnormal action of the vital forces. And if we would trace the *primary causes* of deaf-dumbness, causes that may be avoided by greater conformity to the laws of nature, we must endeavor to go even beyond the disease or abnormal action and to trace the influences which induced the departure from health and natural development that resulted in deaf-dumbness.

Though the study of these primary causes and influences has been pursued with a zeal proportioned to its interest and importance by many teachers of deaf mutes and by some medical men, the results, while they possess a certain value, still leave much to desire. All intelligent readers know how difficult it is to reach definite and satisfactory conclusions on many points in human physiology and pathology. The data collected are indeed quite extensive, but they lack precision, and are very deficient in many of those indications which, if known, would often change the conclusions. Still we are able to assign, with more or less certainty, several of the conditions which tend to the deterioration of individuals and races, and to the production of defective or impaired organizations; and we can often show under what circumstances these deteriorations are biased to take the forms of deaf-dumbness, rather than of some other of the long catalogue of human infirmities.

REMOTE CAUSES.

The remote causes that have been with the most probability assigned for congenital deaf-dumbness are the following:

1. Unequal ages of the parents, especially where the mother is older than the father, or advanced age of either parent, especially of the mother.

2. Ill health and feebleness of constitution in one or both parents, especially where there is a hereditary tendency to scrofula.

3. Impairment of the procreative power, especially in the father, through early dissipation or bad habits.

* Dr. Wilde says (p. 448): "The arrests of development and malformations of the cerebro-spinal system which when confined to the organ of hearing produce deafness, give rise, when they extend to the brain, to idiocy, epilepsy and paralysis. Hence the large amount of 362 cases, idiotic or paralytic, or 1 in 12.39 of the entire 4,485 [deaf-mutes] retured; while the general proportion of the idiotic to the population of Ireland is 1 in 1,460. Many of the 362 specified were also defective in stature, or otherwise deformed." Dr. Meniere, Physician of the Paris Institution, says: "The infant, during its intra-uterine existence may be affected by cerebral lesions. Those who survive are ordinarily idiots or paralytics. Some are deaf, but in these it is not so much the ear as the brain that is injured; the intelligence is wanting rather than the sense of hearing." See *L'Impartial*, for 1856, p. 182.

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4. Intermarriages of blood relations.

5. Causes operating during gestation, through the excited imagination or nervous sensibility of the mother.

6. Ill health of the mother during gestation, or physical accidents during that period.

7. Intemperance in one or both parents about the time of conception.

8. The influence of unhealthy occupations, bad water, inferior diet, or damp dwellings of the parents on their offspring.

9. Direct hereditary transmission.

All of these primary causes, the intelligent reader will see, are, *mutatis mutandis*, as applicable to other congenital infirmities, as well as to deaf-dumbness. A defective bridge gives way at the weakest point; and where there is no specially weak point, the point of fracture may be determined by slight causes. So it seems that there are families in which the weak point of the constitution is the apparatus of hearing; but in many cases the tendency to deafness rather than to idiocy, blindness, lameness, or some other infirmity, was biased by causes that often baffle research, because they seem so slight that they elude attention.

Of these remote causes, there are three or four which merit a more particular attention, because the statistics collected by teachers of the deaf and dumb are in these cases of special value.

INTERMARRIAGE.

The intermarriage of blood relatives has been held, from the earliest times, an evil to be restrained by law. That such marriages, as well as the analogous breeding in and in of domestic animals, tends to deteriorate the individual offspring—and, if continued, the race—is now generally admitted. That this deterioration frequently takes the form of deaf-dumbness is also well established. From statistics collected in Ireland, in France, and in this country, it is shown that where the parents are nearly related, the chances of the birth of a deaf and dumb child, and especially of several deaf-mute children in the same family, are twice or three times as great, other circumstances being equal, as in families where there is no such relationship between the parents. And when it is added that the children of such unions are in a much greater proportion liable to feebleness of body or mind, we trust the warnings against such marriages will be oftener heeded.

There is in some parts of Switzerland a startling proportion of deaf mutes, in some districts as high as one in two hundred souls, or about seven times the general average of Europe, and ten times the average found in other countries where the conditions of climate, soil and freedom of choice in marriage are more favorable to health and healthy development. Idiots and cretins also abound in those regions; and there seems no reason to doubt, as alleged by Dr. Meniere of Paris, that the frequent intermarriages between relatives in those deep and secluded valleys may co-operate with the other unfavorable influences of general squalor, bad water, and want of pure air and sunshine, in producing this prevalence of infirmities.

GESTATION.

The fifth of our causes of deafness opens a long disputed question. The belief that the imagination of the mother influences the constitution and markings of her unborn child is one of the oldest physiological notions of mankind. When Jacob put his peeled rods in the water, he was probably moved by a popular opinion handed down for generations before his time. Like many other popular beliefs it has run into wild absurdities that have brought the doctrine into disrepute. Still we have some remarkable instances which tend to show that violent emotion, or a strongly excited imagination in the mother, may, in some few cases, have closed up the ears or arrested the development of the organ of hearing in the unborn child.

The congenital deaf-dumbness of two of our pupils was ascribed to the effort made by the pregnant mother to shut out from her ears the cries, in one case, of a dying child, and in the other case of one of her children who had to undergo a surgical operation. In another case, in which the father was killed by a falling tree on the eve of marriage, the mother rushed to his side in a state of distraction, wildly calling on him to speak to her. The child, made by this accident illegitimate, was bright and well formed, except in the want of hearing and speech.* Quite a number of cases have been reported, both in this country and Europe, in which mothers have ascribed the deafness of their offspring to their having been frightened in pregnancy by a deaf mute, or by one pretending to be such. Others ascribed it to the strong interest excited by accidentally meeting deaf mutes. In some cases in which there were several deaf mutes in the same family, the sub-

*A more particular account of this and of several similar cases may be found in a valuable paper by the lamented Dudley Peet, M. D., on the "Remote and Proximate Causes of Deafness," printed in The American Annals of the Deaf and Dumb for April, 1856.

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sequent cases were ascribed to maternal anxiety, excited by the first. The mother of the boy already mentioned, who was born with the external passages of his ears closed, ascribed that misfortune to the shock of alarm she received from a piercing shriek uttered by a servant.

In many of these cases the supposed cause may have been imaginary or a mere coincidence. In how many it is worthy of serious consideration we leave to future investigation. It may be a relief to anxious mothers to know that such cases are somewhat rare. We do not think this cause is assigned for the birth of a deaf child oftener than about one case in twenty, and probably not more than half the alleged cases present any degree of plausibility.

HEREDITARY TRANSMISSION.

Hereditary transmission is the one among the causes of deafness the influence of which would seem the most incontestible and the most easily estimated. In this country, especially, marriages of deaf mutes have been of late years much more common than such marriages are in Europe or were in this country half a century ago. With the general elevation of this class by education comes greater ability to support a family, greater consideration in society, and that moral and intellectual power which makes the individual recognizable as a fitting head of a family. The intelligent, capable deaf mute feels the need of a home of his own, feels the ability to provide such a home, and no longer finds himself obstructed by the prejudices of society. The marriages of deaf mutes in the United States are to be counted by hundreds, and in the majority of cases both the parties are deaf and dumb. We have, therefore, sufficient data to state approximately in what degree the deaf-dumbness of the parents may be expected to influence the offspring.

While the proportion of deaf-mute children of such marriages is large enough to painfully surprise some of our readers, it is still much smaller than many persons suppose. Where both the parents are congenitally deaf, it may be stated that there will be deaf and dumb children in about one case in ten. Where only one of the parents is a congenital deaf mute, the observed proportion of deaf-mute offspring is about one in one hundred and thirty. Deaf mutes who are not such from birth do not seem, other circumstances being equal, more liable to have deaf-mute children than their brothers and sisters who hear. From these facts it results that marriages between two *congenital* deaf mutes should be discouraged as much as marriages between relatives.

PARENTAL PHYSIOLOGICAL INCAPACITY.

After all imaginable causes of deaf-dumbness have been allowed for, there will still remain many cases, not unfrequently of several deaf mutes in the same family, who were the children of well-formed, healthy and intelligent parents, in comfortable circumstances, not related to each other before marriage, and not ascribing the deafness of the child to any hereditary transmission, or to any emotion, sudden fright, or nervous agitation of the mother. In these cases there were, doubtless, causes for the affliction, if we could discover them, and when physiological science attains to a greater degree of perfection these causes may be traced. In the present state of our knowledge we can but repeat the conclusion put forth in the Thirty-fifth Report of the New York Institution:*

"In many cases, especially when this affliction appears in several children of healthy parents, whose families were hitherto unaffected, and after descends to the grandchildren, we think the primary cause is to be sought in circumstances that may constitute a physiological unfitness of the parents for each other, circumstances of which one or two may be probably assigned—*e. g.*, when the parents are nearly related—but most of which have hitherto been inscrutable to human research."

It is a striking confirmation of this theory that, while so many of the deaf and dumb have deaf and dumb brothers and sisters, it is exceedingly rare to find a case in which there are half-brothers or half-sisters sharing the same infirmity. The affliction seems to attend certain unions; but if either parent has children by a second husband or wife it disappears.

We have referred to the frequency of cases in which there are several deaf-mute children in the same family. Such cases are found in all countries in which the statistics of this class of population have been collected. In the interior of the State of New York was a family in which seven children out of fourteen were born deaf and dumb. One of these married a deaf mute and had six children, all deaf and dumb from birth. Such families usually either become extinct, or wear out the predisposition to deafness in the course of two or three generations; and the transmission of deaf-dumbness as a direct inheritance through three generations is rare.

[TO BE CONTINUED.]

*Report for 1853, p. 118, Albany edition.

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Come to the Woods.

BY ALFRED B. STREET.

Come to the woods!
Care never broods
Here in these dingles and leafy-green bowers!
Hearts leap on high,
Clear as the sky;
Swift as the breeze flee the light-footed hours!
See where the deer
Skims in his fear!
Hark how the hound lifts his trumpeting cry!
Swell out the strain,
Care can not reign
Here in this forest and under this sky!

Lakes here are seen,
Pearls set in green,
Eden-like islands, shores radiant as hope;
Rivers wind through,
Clear as the dew;
Free spreads the heart as the canopy's scope!
Star-like the camp
Kindles its lamp,
Round it the night flees untroubled away.
Let the song swell!
Care can not dwell
Here in this forest and under this sky!

On the pine's crest
Looms the gray nest
Of the gray hawk ever sailing around.
Hark to the loon
Waking its tune!
Hark how the mountain-born echoes rebound!
See from his rock,
Up with a shock,
See the black eagle swift soaring on high!
Shout out the strain,
Care can not reign
Here in this forest and under this sky!

RELIGIOUS BELIEF.—I envy no quality of the mind or intellect in others, be it genius, power, wit, or fancy; but if I could choose what would be most delightful, and I believe most useful to me, I should prefer a firm religious belief to any other blessing; for it makes life a discipline of goodness; creates new hopes, when all earthly hopes vanish; and throws over the decay, the destruction of existence, the most gorgeous of all lights; awakens life even in death, and from destruction and decay calls up beauty and divinity.—*Sir Humphrey Davy.*

IT is a miserable thing to live in suspense; it is the life of a spider.—*Dean Swift.*

The Physiological Anatomy, Physiology and Pathology of Man.

BY RUFUS KING BROWNE, M. D.,

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NUMBER IV.

THE reader has now been presented with the facts that growth commences within the minute masses of soft-solid matter, which is the very earliest form of every living organism, and in the more or less diffluent matter which everywhere permeates between them. This last matter is not simple, but consists of several substances in a flowing state, each of which, separated from water, are crystalline or solid. It permeates everywhere between the surfaces of the minute soft-solid masses, and *amid* their particles, without distinction of surface or interior; so that, physiologically, the distinction between the two is not one of separation, but rather one of fusion. This diffluent matter may therefore be said to communicate throughout these masses, not by marked channels, but by its particles everywhere infusing amid those of the little masses. It is by this means alone that the particles of the former may combine with those of the latter, and thus furnish the increase in their quantity, called growth. No growth can be effected without this diffluent matter we have called *pabulum*. But the part which it takes in the growth of these masses and their formation into tissues is simply to supply itself. It is the soft-solid germinal masses which build themselves up by appropriating suitable particles of this pabulum. This process is a constant ingress and egress of the diffluent matter into the minute masses from their surface to their center—a process in which the latter combines into their own form and substance certain particles of the former. But this process is to those particles of pabulum not only and merely a change of form, but one of property, for in being united to each little mass they are empowered with its active or formative property or life. Although we can not physically measure or view this process, it is undoubted that its rate is a progressive variation. This growth does not consist in the deposition of particles side by side upon the surface of those masses, but always proceeds from within outward, just as the growth of the completed

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body does. This pabulum passes into the germinal masses, in the particles of which it becomes active with the other particles of the mass.

It is essential to understand that the growth of these germinal masses or units of organization varies between wide extremes, but there are facts which indicate that they are capable of unlimited growth. The smallest of them may be less than the one hundred thousandth part of an inch, and may have been growing before we were able to discern it, and the human completed anatomy is in reality the form of an assemblage of an enormous number of these masses of various stages of growth and shape. In some parts these are not separated; the growth and multiplication by division is made without any new surface being exposed.

We must not look at these elementary parts of tissue as bodies which, having assumed a definite form and shape, and reached a certain size, remain stationary, but as continually undergoing change—not a single particle of which they are composed is still. As they divide they slowly and, of course, not at a rate which could be visible to the eye, separate, the extent of separation being measured by the amount of the intervening diffluent matter.

Every tissue is composed of elementary parts. However large and complex the organism may be, it is very easily separated into certain parts and organs. The body of a vertebrate animal contains, or rather consists of, as we all know, bones, muscles, fat, the liver, kidneys, the brain, nerves, etc. Each of these may be anatomically separated into elementary organs. An entire bone, for instance, may be seen to consist of an assemblage of certain small portions, each of which contains every structure essential to the constitution of bone and necessary for its growth, and the same is true of the other organs.

In different animals the size of these elementary organs differs, but not to the same extent does their number. An organ of a very large animal like the whale differs from the corresponding organ of a small one like the mouse enormously, as to the number of elementary parts of which it is made, but in a much less degree as to the eventual size of the "units of organization."

An elementary part of a bone consists of a mass of germinal matter or "unit," external to which is formed material, which gradually becomes impregnated with calcareous salt from without inward. An elementary part of a lung is composed of a delicate, transparent membrane with elastic tissue and vessels. But each of these are compound, being each composed of matter in two states—germinal masses, active and growing, capable of multiplying itself; and formed material around it, which was once in a germinal state and before that consisted of the particles of matter from the diffluent matter converted by the germinal matter into its own substance.

OF THE CHANGES IN AN ELEMENTARY PART.

An elementary part may commence its existence as a very minute granule, too small even to be seen by any microscope. It *grows*, and then exhibits an outer portion of different character to the material within. At first it seems to consist of small spherical particles, and these of smaller and still smaller spherules. Changes occur in the inner part. Small masses (neuclei) may appear in it, from which new growths may proceed at a subsequent period and within these smaller particles. These clearly arise one within the other. The central mass may divide, and the two portions may again divide and subdivide, until an immense number of masses may appear. Some rapidly-growing fungi consisting of these masses may reach the size of a small pear in a single night. These little masses may be separated with matter between, or they may also remain within the first-formed material as in a capsule. This division and subdivision may take place in a transparent and more or less viscid substance, which lies between and separates each mass from its fellows.

The power of growth of these germinal masses of man and the lower animals is, there is reason to believe, quite unlimited. It retains this power of growth or increase so long as it is under suitable conditions and supplied with the nutrient matter (pabulum). The rapidity of the division near the nutrient surface, and hence the production of new masses, is especially influenced by the amount of nutrient matter.

When this germinal matter is naturally in contact with nutrient material in a forming organism, it begins at once to multiply. The previously inert nutritive material near it is absorbed by the several particles and their powers communicated to it. If the nutrient material be very abundant, the particles will consist almost entirely of germinal matter. In the growing condition of the nutrient material supplied to the germinal masses, a certain proportion is absorbed by the germinal matter and undergoes conversion into tissue.

Compound structures or tissues have been removed from a part of the grown body, where

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they have grown, to a distant part, and have grown there. Skin, hair, teeth, and other tissues, have been so successfully transplanted. Physiologists have removed a portion of the periosteum from a bone and planted it in a distant part of the body—under the skin, for instance—and bony tissue has been produced. The periosteum contains bone-germs, which only require nutrient material in contact with them to undergo development into ordinary bone.

A little of this germinal matter may be detached from the primary mass and carried to distant parts by the movement of organs one on the other, or it may be carried a long way from the point where it commenced and again grow—hence results morbid growths.

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The Curative Influence of the Mind.

SOME ANECDOTES IN POINT.

BY J. E. SNODGRASS, M. D.

NO INTELLIGENT medical practitioner, with ordinary opportunities for observing the influence of the mind on the diseases of the body, whether as relating to the play of the imagination, or the more deliberate exercise of thought and will-power, could have failed to detect the practical relation which my heading suggests.

It is in the treatment of chronic diseases that the influence of the mind is most noticeable. It is, indeed, from the aid of the mental faculties that the wise physician anticipates his most gratifying as well as most certain cures, because he does not fail to appreciate their often subtle control, or to defer to them. To do otherwise would be to openly disregard those spirituo-intellectual forces so characteristic of the present era, or to confess himself ignorant of their workings.

The classes and quantities of the medical agents employed—formerly more frequently than now—by practitioners of high standing, have afforded unmistakable evidence that their prescribers suppose deranged organic functions in man are to be restored to healthy action on precisely the same principle as similar diseased actions in the organs of the lower orders of animals. To illustrate the fallacy of this course, I will suppose that a practitioner has been called to visit a farmer who has indulged too freely in unripe corn. On his arrival he learns that his patient's horse is the victim of the same disregard of dietetic laws as his owner, and that both are paying the inevitable penalty prescribed by Nature for imprudence in mal-feeding and over-eating, and feels it to be his duty to apply his knowledge to both sufferers. If a practitioner of not only the "old school," but of what the Professor of Practice in my Alma Mater used to call the "heroic school," he will, in view of the fact that both *animals*, as he contemplates them, have been diseased by the same agent, treat both according to the same unvarying rule. I do not say that he will give precisely the same drug to each of his patients, but his medicines will be agents of the same class. They are not likely to be the same in quantity, for the horse, being the larger animal of the two, will get the larger dose. But then, he would also prescribe a larger portion of his drug for a man than for a child—and in the same way he would discriminate between a full-grown horse and a colt. And this is precisely where he would show his disregard of the true law of cure, to which it is the purpose of this article to call attention—a disregard which would be inevitable, because of his ignorance of the actual workings of that law.

Now, even as betwen two persons of the human species, although of the same sex and age, there is such a great difference of abnormal as well as normal action, because of that difference in temperaments which has been stamped upon our being for wise purposes, that the practitioner of the new school—in the sense in which I wish to be understood as using the phrase, that is, the school of progress—would suspect himself of the sheerest empiricism, were he to prescribe not only the same remedy, but the same strength of it, to two persons of even the same sex.

In the supposed sameness of treatment of the horse and his owner and controller, there is no account whatever taken of the fact that the one is a spirituo-intellectual being, whose individuality, in spite of the hampers which the false doctrines of life and the consequently false habits of the masses furnish, has been allowed some small degree of liberty, while the other is a mere animal whose instincts have been denied their normal play—an automatic machine, whose muscles alone it has been the aim of his owner to develop, howbeit he has most likely failed to attempt even that on physiological principles, and hence has developed his cellular and adipose tissues instead.

Man, looking at him in his individuality merely, apart from his social relations, has a mind—a will-power, an imagination, if you please—which the true physician would call to his aid in the treatment of his malady, instead of utterly ignoring its existence. He is

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gifted with spiritual forces—using the term in no technical or special sense. It is to these that the true physician will pay deference—to these make his appeal, in fact—whatever remedial agents he may have been taught to use in order to *assist* them in their beneficent work of recuperation. I emphasize a word here, which will be sufficient to show the plane on which my thought is running in this merely suggestive paper—for I have designed to make it one of suggestion rather than of argument—an index, in other words, to that true philosophy of cure which, I think, would be expressed by the term *Physiopathy* more clearly than by either Allopathy, Homœopathy, Hydropathy, or even Ortheopathy, which last named word might be best defined as signifying *No-pathy*, discarding as it does all remedial agencies not furnished by the human organism; which, as it seems to me, is—to use a very expressive though vulgar phrase—running the doctrine of the *vix medicatrix naturæ* rather far into the ground. For I believe it to be our duty to *assist* Nature, and not to leave her to contend alone with Disease.

It seems to me that, amid all the resources of empiricism, the curious uses to which it has put the imagination—often most successfully, it must be confessed, in the light of its accredited history—it has afforded us many valuable illustrations of the fact that the medical world has lost vastly by its habit of ignoring the mind to the extent it has in the treatment of disease—especially those forms of disease commonly classed as chronic.

In this belief I have collated and shall cite, in the course of this article, some of the more curious anecdotes furnished by Pettigrew, and the older authorities relied on by him, touching the cures which have resulted from appeals to the imagination—in other words, the superstitious element, which the absence of its sure banisher, General Enlightenment, has left to play a most important part in medicine—scarcely less so than in religion, lament it as we may.

There is no better way to estimate the curative power of the imagination than a consideration of its power to destroy health, and even life. As to its deleterious influence on the organic functions, the instances are of such frequent occurrence as to become familiar to all observers, and therefore to call for very little or no elucidation. And yet an example or two may be cited of the influence of this faculty during the prevalence of epidemics such as cholera.

It is very safe to say, that of those most liable to this disease, a considerable percentage have brought it on by imagining, in the first place, that they were doomed or fated to die of it, and then, when they chanced to become affected by slight premonitory symptoms, have increased the depressing power of those symptoms by dwelling on the dark side of their cases. To say that almost as many persons, among those who have died of this disease, were the victims of fear as of all the other causes put together, is only to express the verdict of general observation.

What is true of cholera is true of all other epidemic diseases in proportion to their panical tendency. But this tendency has not been found requisite for the display of the deleterious force of the imagination under discussion. In certain chronic diseases the effect has been frequently observed to be the same in a greater or less degree. Hypochondriasis has afforded striking examples. When the peculiar sluggishness of the muscular system, which characterizes this disease, has presented itself as the result of that inactivity of the portal system on which it primarily depends, the imagination begins to lend its malign aid. It may be said that, in such case, this mental faculty is itself diseased. Admit it, but the fact is not the less patent that it interposes to kill rather than to cure. This is universally indicated as the view of its action taken by the friends of the hypochondriacal sufferer. Hence their exhortations to him to break the spell of its control, by dismissing his fear and making efforts to overcome the tendency to inertia which besets him. He is told by his physician that he "must not let his *mind* dwell on himself," and such influences as are calculated to divert his mind accordingly are prescribed in aid of his personal endeavors to reassure himself of his ability to resume the tenor of normal life and be "himself again."

The records of medicine are replete with instances in which the imagination has proved unmistakably fatal. A case of this kind is mentioned in the books. A malefactor was, as he supposed, carried from prison to the block. A wet and cold cloth chancing to come in contact with his neck after the cap was pulled over his eyes, he fell dead, under the conceit that it was the fatal steel that had been applied to him. In another case a criminal was sentenced to death by venesection. His eyes having been blindfolded, water was made to trickle down his arm, in response to the touch of a lancet, for so great a length of time that he imagined himself dying from exhaustion, and died accordingly.

Having satisfied ourselves of the power of the

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mind when acting in the direction of disease and death, we are now the better prepared to appreciate its opposite control—that is, in the prevention and even the cure of bodily ailments. On the question of the prophylactic influence of the mind, it will only be necessary to contrast the result to be fairly anticipated by the well-poised and resolute man, with that of the morbidly imaginative and timid, amid epidemical panics. The one foresees the depressing agencies and avoids them, or parries their force by dietetic prudence and the avoidance of depressing influences, and thus his expectancy is of escape rather than of victimization. He *wills* to outride the threatening storm, and his will makes him secure in fact as well as in feeling, while his more desponding neighbor anticipates death and so makes it certain to overtake him!

Familiar examples of what the imagination may effect are given by the practice, among the less informed classes, of talismans and charms and amulets. When in country practice in the South, I frequently encountered this class of "protectors" against disease among the slaves and the more ignorant of the "poor whites," and among some persons who were not poor. A very common and favorite charm was a little bag of sulphur fastened to the neck by a string and resting on the breast like a locket. A few years ago magnetic belts and rings were much in vogue.

Having long since learned the folly of sneering at every thing that did not chime in with my preconceived notions, I am not prepared to deny positively that there may not be some direct medical power attributable to some of these metallic appliances. There can be no doubt that, by serving as a perpetual reminder of liability to infection, and as inciters to care as to imprudence of diet or exposure to infectious or otherwise deleterious influences, while at the same time inducing that calmness of mind which trust in their prophylactic power tends to establish, the appliances referred to *do* "act like a charm" in many instances. If faith can "make" us "whole," as we are assured in the Scriptures, it is certainly not extravagant to conclude that it may *keep* us whole, and the effect on the wearer of the amulet may, in this respect, be aptly compared to that of a perpetual prayer—naturally so acting as to favor the result which he desires.

In this view we are prepared to contemplate without surprise some of the resorts to amulets during the prevalence of fatal epidemics whereof the history of medicine affords a record. During the great London plague, amulets composed of arsenic were commonly worn on the heart, in the belief that one poison would prevent the malign influence of another. To so great an extent was this relied on, that arsenic was imported to London in largely increased quantities during the plague, and sold at immense profit, notwithstanding a prominent physician of that day (Dr. Henry) protested against these amulets as "dangerous and hurtful, if not pernicious to those who wear them." Quills charged with quicksilver were also worn about the neck during the same fearful visitation. But the most singular of all the ingredients of amulets of which we have any account was the "powder of toads." Pope Adrian wore it, in his celebrated amulet, in company with a number of other substances selected from the mineral and vegetable kingdoms, among which were arsenic, pearl, coral, hyacinth and tragacanth.

The influence of *expectation* is most strikingly illustrated by the description of a cure of the ague in a Spanish army officer, which is recorded by Skippon in his "Journey Through the Low Countries," on the authority of Ferrarius, in this wise: The operator wrote the words "*febre fuge*" (Fly, fever!) on a slip of paper. Each day one of the letters was to be cut off. While the diminution was going on, the force of the ague's paroxysms was observed to become less and less, and after severing the second "f" there was no return of the disease. Fifty other patients were said to have been cured of the same complaint in the same manner. But a still more curious plan for curing the ague was by a charm of rhyming words, which were to be said up the chimney by the eldest male member of the family to which the patient belonged, and on a particular day—St. Agnes's Eve. It ran thus:

"Tremble and go!
First day, shiver and burn,
Tremble and quake!
Second day, shiver and burn,
Tremble and die!
Third day, never return."

I will close these illustrations of the agency of the mind in the cure of disease with an amusing as well as instructive anecdote, for which I am indebted to the author first named, which is told of no less noted a character than Sir John Holt, Lord Chief Justice of the Court of King's Bench. The Chief Justice was very wild in his youthful days. Being at one time on a trip to one of the rural districts, he found

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himself out of funds, and had to use his wits to pay his expenses. Arriving at a village inn, he ordered his horse stabled, and supper and lodging for himself. Having done this he strolled into the kitchen, where he espied a little girl shivering with the ague. On inquiry of the landlady he learned that the sufferer was her only child, and that she had been afflicted in that way for nearly a year, in spite of various medicines. The future judge gravely shook his head at the doctors, and bade the despairing mother and the child to be under no further concern about the case, for he could prevent a return of the chill without fail.

He at once wrote a few unmeaning words, in a bold and showy hand—a "court hand" the chronicler tells us—on a scrap of parchment such as was in use then (1709), and this he directed to be rolled up and bound to the girl's wrist. Holt remained at the tavern a week, during which time there was no return whatever of the disease.

When he called for his bill, the delighted mother replied: "God bless you, sir, you're nothing in my debt at all! To the contrary, I wish I was able to pay you for the cure of my daughter. Oh! if I had had the happiness to see you ten months ago, it would have saved me £40, at least, paid for doctors' bills and medicines!"

Young Holt pretended, when he left, to accept his week's board, as a compensation, with great reluctance, although he had not a shilling in his pocket!

Many years had elapsed since this event, and the wild rover had become a Judge. It so happened that the circuit to which he was assigned embraced the county in which the old landlady kept her tavern. Among the prisoners brought before him for trial was an old woman accused of witchcraft. In support of this accusation several witnesses swore that the old woman had a spell, by which she could cure sick cattle or make well ones sick—they had detected her in doing this, and were ready to produce the "spell."

The Judge required the "spell" to be handed up to him. This having been complied with, he proceeded to unwrap a dirty ball, enveloped in rags and bound with pack-thread, which resulted in his finding his own parchment charm, rolled up precisely as when he handed it to his relying and grateful hostess, in the long-past days of his freakish boyhood!

Thunderstruck, his lordship remained silent for a moment, as if making an effort of reassurance, and then proceeded to charge the jury to the following effect: "Gentlemen, I must now relate an incident of my own life, which will seem to ill befit my present station till I shall have fully explained all the circumstances. But to conceal the fact would be to aggravate a folly of my youth, for which I would fain atone, as well as to endanger innocence and encourage superstition. This bauble, which the witnesses have testified of as having the power of life and death, is a senseless scroll which I wrote with my own hand and gave to this woman as a cure for disease, and for no other reason than a sincere belief in its virtue as such she is now accused of the crime of witchcraft!"

It is further related that the Judge, after more particularly narrating the circumstances of his cure of the ague with this "charm," charged the jury so effectively in favor of acquittal, that not only was the poor old supposed "witch" discharged without punishment, but an end put to trials for witchcraft in his circuit, if not throughout England.

I think I need add nothing further in order to claim a verdict from the readers of THE HERALD OF HEALTH, sitting as my jury, deciding that I have successfully made out my case of the curative influence of the mind. I could add from memory, were it in accordance with my present purpose to do so, more than one recovery from severe and even dangerous illness, which appeared to me to be fairly attributable much more to the influence of the imagination than to the medicines administered, if not, in fact, wholly attributable to the former agency. And I think I might safely appeal to my medical brethren, irrespectively of the school of practice which they may have adopted, for their experience on this point, in the expectation of getting their sanction to what I have here stated. But enough, for the present, to direct attention to the inquiry I have thus started, as to the extent of the influence of the mind in the cure of the diseases of the body—a theme exceeded in interest by few others within the entire field of professional thought.

A HOSTLER was sent to the stable to bring out a traveler's horse, but not knowing which of the two strange horses in the stalls belonged to the traveler, and wishing to avoid the appearance of ignorance in his business, he saddled both animals and brought them to the door. The traveler pointed out his own horse, saying: "That's my nag." "Certainly, yer honor, I know that very well," said the hostler, "but I did'nt know which was the other gentleman's."

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Portraits in Verse.

BY GEORGE W. BUNGAY.

OLIVER WENDELL HOLMES.

At the head of the table, with smiles on his face,
Which light up the heart like the sunlight of grace,
Sits the "Autocrat," laughing and chatting away,
The merriest monarch that ever bore sway.
A happy, gay fellow—don't judge by his size
His stature of soul, but look into his eyes.
Nature could not afford to give adipose, when
She gave so much heart for the welfare of men.
To the humor of Hood his genius gives glow,
And the joke must come if the buttons must go;
Should he e'en break a rib with a side-splitting pun,
He's a doctor whose pills can not cure like his fun.
Although his profession runs into the ground,
And some of his patients sleep under the mound,
His wit could awaken their risible cough,
Though their spirits had gone where the Croton's cut off.

JAMES R. LOWELL.

He, whose soft silken hair is all rippling with curls
And parted in front, while it falls like a girl's,
Is a poet and wit, full of pathos and fun,
Who hides from the world the best work he has done.
His brave heart is a well in which the truth lies;
Words Pity drops in splash the spray in his eyes.
When his eyes look into the future he seems
Like the dreamer of old, when he saw in his dreams
A ladder that reached from the earth to the stars,
And white angels that climbed on its golden bars.
How sweet is the rhythm of his musical words!
As though thoughts were sweet odors breathed softly by birds;
His "Snow-fall," whose flakes fall so silent and white
On the graves of our darlings, brings tears to our sight.
We kiss through the lips of the living the dead,
And bless the true poet whose song we have read.
May the winds that blow clouds from faces of care
Keep the snows that melt not from his sunlighted hair!

Manners 350 Years Ago.

BY FREDERICK B. PERKINS.

The best edition of the writings of the great Dutch scholar, Erasmus, is that of 1703–6, Leyden, in ten folio volumes. It is a stately mass of Latin, indeed; a splendid monument of the learning and industry of the author. Reading in this set of volumes, I lighted upon a treatise that I had never heard of. I was familiar enough with the famous and humorous "Colloquies," but I did not know that Erasmus wrote a "Libellus de Civilitate Morum Puerilium"—that is, "Libel (which is as much as to say Booklet) on Elegance of Manners in Boys."

But as a constant friend of good manners, and especially since there is to be a competition for a Prize Gentleman over at Princeton—where, by-the-way, the successful practitioner of Deportment will assuredly be decorated with the title of Turveydrop Junior, or something like it—and as a lover of the curious beside, I perused the maxims and admonitions of the old theologian and scholar with much interest, and have translated, below, some passages by way of specimen.

What I was most struck with was the remarkable union of good sense, deference for useful forms, and natural dignity of sentiment in the writer. Erasmus was not only a powerful thinker, an influential author and scholar, a self-made man, and a laborious and excellent literary workman, but he was thoroughly a natural gentleman.

It is true that some of his injunctions are quite too coarse to print here, and would be thought now-a-days entirely superfluous among decent Christian people; but it must be remembered that he was born almost thirty years before the discovery of America, and sixteen years before the birth of Luther, when people were not only far more ignorant than now, but, necessarily, far more unpolished. Compared with what is now reckoned ordinary decency and social etiquette, what was considered such in Erasmus's day would often at present be thought disgusting. Any body who has read Macaulay's well-known description of the manners of the English country gentlemen just before the time of William the Third, particularly that astounding picture of the disreputable position and servile duties of a chaplain in a gentleman's family, will easily see how even worse ways might have prevailed two centuries still further back.

Erasmus's modes of enforcing his maxims strongly reminded me, again, of the singular

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lifferences in the forms of decorum between different people. He also frequently says that such or such a rule is not only decorous but healthful; or that such or such a form of respect is not only due to man, but coincides with our obligations to God. Thus he goes straight to the root of the matter, and suggests a code of deportment based not on habit or fashion, but on morals and religion—where, indeed, is the only sure basis of kind feeling or of good conduct. Such principles will equally apply, for instance, to the Christian rule of keeping your hat off in church, and to the Jewish rule of keeping it on. I remember feeling a curious sort of sheepishness one day in a synagogue, whither I had been sent to make a report for The Daily Autocrat, of the proceedings at an Israelitish solemnity, at being chidden on this point by one of the officials. He came up to me with a shocked expression, as if he had caught me trying to undress myself before the whole congregation, and exclaimed in a peremptory whisper: "Put on your hat—don't take your hat off in here!" And so I did, and so I did'nt, just as he told me; and I meditated on the odd variety of people that go to make up a world.

To return. See how handsomely Erasmus states a summary of his subject. It is at the end of his "Libel," but, as he himself observes, might quite as well have been at the beginning. He says: "The sum and substance of good manners is, not to be guilty of any violation of social proprieties yourself, and at the same time to readily overlook the offenses of others. Do not begin to dislike a companion merely because his manners are bad in some particulars. There are those who make up for such faults by other good qualities; and the rules of good manners do not say that no one can be good without them. If one of your associates commits a breach of etiquette that is worth noticing, good manners require that your suggestions to him on the subject should be made when you are alone with him, and in a pleasant way."

Those recommendations are essentially gentlemanly. Equally dignified and sensible are the introductory remarks, which define a gentleman:

"It is proper that the whole individual should be in keeping; his mind, his body, his bearing, his costume. For boys, thorough modesty is one of the very first requisites, especially for those who are noble. *And all may justly be reckoned noble who are devoting themselves to liberal studies.* Let those who choose paint lions, or eagles, or bulls, or leopards on their shields; but he has more of true nobility who can set up in his coat of arms the representations of as many liberal studies thoroughly learned."

Bravo, old scholar! That is a splendid assertion of the superiority of the pen to the sword, long before Bulwer had put the sentiment into the mouth of his stage hero, or Leigh Hunt diluted the same thought in his "Captain Sword and Captain Pen."

In exhorting to consistent decorum and decency, Erasmus has a very beautiful thought, which I do not remember to have ever seen used in the same way. After reminding his young readers of what, no doubt, any sensible boy would instantly acknowledge—that they should no more indulge in loose or indecent attitude, or conduct when alone than when before others, he says, as a reason which is sufficient even if there were no other:

"For the angels are always around you; and to them decorous behavior, always the companion and protector of modesty, is especially grateful in boys."

Erasmus thought as ill of winking as did Solomon. "A naughty person, a froward man," saith the wise King, "winketh with his eyes;" and again: "He that winketh with the eye causeth sorrow." Erasmus treats this gesture not exactly as an immorality, but as a vulgar trick. "It is indecorous," he says, "to look with one eye closed upon any one. What is doing this, except to blind one's self? Let us leave such gestures to flat-fish and blacksmiths." Of these, doubtless Erasmus would have allowed the one to wink in consideration of the water, and the other of the fire, getting into his eyes. The prescription for the conduct of youth who meet their seniors abroad would introduce unaccustomed testimonials of respect among the present rampant and rough-and-ready style of American boys. No such humilities have been visible in this Republic since the Revolutionary War. In those days there was some of it left. There is in the Connecticut Historical Society's rooms at Hartford, an old wood-cut of Yale College as it appeared some time during the last century. The President, a vast man, so stuffed with learning that he is almost as broad as he is long, in academic gown and flat cap, is moving grandly up the walk toward the chapel door; and, as he goes, the students along the path stand with cap in hand and head bent down until he has passed quite by. The customs of the college (I quote from a code printed in 1764) required that the students "be uncovered, and are forbidden to wear their hats (unless in stormy weather) in the front-door yard of the President's or Professor's house, or within ten

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rods of the person of the President, eight rods of a Professor, and five rods of a Tutor." A Tutor, it will be observed, is thus made just half as respectable as the President. Such were the ways of the college in the time of my great-great-grandfather, President Thomas Clap. President Woolsey may think himself lucky if the students touch their hats to him at ten inches, instead of taking them off at ten rods. Well, Erasmus says, in manner far more like 1764 than 1867, "On meeting in the way any one who is venerable for age, reverend for piety, eminent in dignity, or for any other reason entitled to respect, let boys remember to step aside out of the path and reverently uncover their heads, *bending their legs a little at the same time.* For such observances are rendered not to the man, nor to his merits, but to God."

The requirement of a "courtesy" from the masculine sex is new to me. The real ascription of the honors given is a very noble and just suggestion.

Quite as old-fashioned, and rather more savoring of superstition—or, at least, of the imperfect religious doctrines of the day—is the direction given for correcting one's sneezing. "If you happen to sneeze before other people," says Erasmus, "it is polite to turn away from them. When the attack is over, make the sign of the cross on your face, and take off your hat and salute those who saluted you—or who ought to. To repress the noise of a sneeze, when nature impels us to make it, would be acting like those silly people who think more of civility than of health."

This last notion is repeated several times in the "Libel," and is a very natural one for a valetudinarian, as Erasmus was all his life.

I add some of the rules laid down for table manners. They throw some light on the nature of table equipments in those days, and imply a rather unsatisfactory state of this department of etiquette, so very obvious do most of the prohibitions and prescriptions seem.

"Hold your cup and your table-knife (*cultellus escarius*), well cleaned, in your right hand; your bread in your left." (There were no forks—these not only having been made after fingers, but not having reached Italy until nearly A. D. 1500, nor Northern Europe until a good deal later.) "Do not allow yourself to squeeze your bread in the palm of the hand and break it off above with the fingers, as some affected courtiers do, but cut it decently with your knife; and do not pull off nor cut off the crust from all round it. That is practiced by finical people. The ancients used, at all their meals, to consider bread as a thing consecrated; and hence the fashion still prevailing of kissing a piece of it that may have fallen on the ground.

This is a curious old custom, but entirely obsolete now:

"It is neither good manners, nor is it healthful, for a boy to drink more than twice or, at most, three times at a meal. He may drink once, when partly through the second course, especially if the food be dry, and once more at the end of the meal. He should drink deliberately, and should not gulp nor make a noise as a horse does.

"It is a universal rule that only gluttons reach all about after whatever will tickle their palates. It is not elegant to offer to another any thing that you have half eaten. To dip again into the broth bread from which you have bitten a piece, is as vulgar as is the morsel itself.

"It is inelegant to take any thing out of your mouth and lay it down on the table. If you happen to take any thing which ought not to be swallowed, *turn quietly away and throw it somewhere.* It is considered bad manners, when any thing is eaten round the edges, or bones have been laid down on the table, to begin to eat at them again.

"The mark of three fingers in the salt-cellar is said, according to the vulgar joke, to be the 'countryman's mark.' You should take what salt you want with your knife. It is a cat's habit, not a man's, to lick a table or a platter where sugar or any sweet material is sticking."

Nearly all these directions are proper for the time when there were no forks; but what sort of times must those have been when such things had to be gravely forbidden in print? It would not be necessary, I think, to explain, now-a-days, that polite people don't offer each other half-munched morsels out of their mouths! I venture on one mild specimen of the class of precepts which I do *not* give; and very likely the Editor will prefer to omit this. All right—though it is a very odd illustration of society then, and is not, as some other passages, totally inadmissible:

"Don't let your nose run. It is a dirty habit. To wipe the nose on the cap or the coat is like a countryman; to wipe it on the arm, like a fisherman. Nor is it much more elegant to make use of the hand, if you presently wipe that on your clothes. The proper method is to use a handkerchief for the purpose."

Such were some of the Erasmian etiquettes. Whatever their defects, it is plain that the scholar of Rotterdam had the right foundation for his set of rules.

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NEW YORK, JULY, 1867.

WATER.

"To the days of the aged it addeth length;
To the might of the strong it addeth strength;
It freshens the heart, it brightens the sight;
'Tis like quaffing a goblet of morning light."

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Topics of the Month.

BY M. L. HOLBROOK, M. D.

The Fourth of July.—On the Fourth of July, 1776, just ninety-one years ago, was published to the world a state paper of then unparalleled importance, and destined, so far as the work of human intellect can, to be immortal. This paper is known to every American as the Declaration of Independence. Its author was born to wealth, was a diligent student, and perfectly temperate in his mode of life. Of a calm and philosophic spirit, a master of his passions, devoted to rural life, a good horseman, fond of the study of natural history and of out-door pursuits, he was almost necessarily a friend of freedom of thought and a hater of any thing that tended to dwarf the human intellect or curb the progressive tendency of the times. Without the aid of a single book, and with hardly a suggestion from a single mind, Thomas Jefferson drafted a paper which gave the bugle-sound and the call to arms to secure American independence. It is not necessary for us to trace out the result of that document, nor the workings of free institutions during those ninety-one years. It is enough to know that while they have not *always* been what the most devoted patriot could desire, they have, at least, been exceedingly favorable to progress. It is doubtful if the founders of our Government expected as much as has been achieved. It is well, then, to celebrate the Fourth of July, and on that day to renew our love and devotion to our country. But would it not be well if, instead of spending it, as is too often the case, in dissipation, in idle carousing, in gluttony and drunkenness, we should devote a portion of it to framing a new Declaration of Independence for ourselves? In very many respects the human mind and body is as much enthralled to-day with bad habits, as it was then with unjust laws. The Declaration of 1776 was what was needed for that day, and it is greatly admired by a grateful people; but a new Declaration, something like the following, would be applicable at the present day:

Whereas, in the course of human events it becomes necessary for man to break off the bad habits which have enslaved him, that he may become independent and entitled to the respect of mankind, regard for his neighbors and friends requires that he should proclaim the reasons for this course.

Bad modes of living have waged cruel warfare against human life. They have shortened its length; they have deteriorated its quality; they have prevented the full and complete development of a very large majority of all born; they have filled the world with invalids, idiots, the insane, idle, sensual, vulgar and intemperate, and yet they have blinded our eyes to the fact so that we still continue to practice them;

Now, therefore, we hold these truths to be self-evident: that man was formed for virtue, and not vice; for health, and not sickness; for length of days, and not premature death; for happiness, and not misery;

Therefore, conscious of the rectitude of our intentions, and with the help of the Supreme Ruler of the world, we do hereby publish and declare that we will not longer be held in dominion by our passions, appetites and propensities, but by our reason and better judgment instead;

And furthermore, we do declare that we will secure for ourselves and for our children the right to as complete a development of both our bodies and minds as it is possible to acquire in the present condition of society;

We demand for all, whether in schools, churches, workshops or homes, abundance of fresh air and sunshine;

We demand abundance of wholesome food and drink for our tables;

We demand that artificial stimulants, such as tobacco, alcohol, wine, beer and ale, shall not be kept for sale to tempt those who are unable to govern their appetites, or those who are ignorant of their injurious effects;

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We demand that our schools shall furnish educational facilities for physical culture, that our children may not grow up with wise heads set on fragile bodies;

We demand that doctors shall not poison us with deadly drugs when we are sick, but teach us the laws of health and how to keep well, and that we will pay them for keeping us strong rather than for curing our infirmities;

We demand that women shall be entitled to the same opportunities given to men for acquiring an education; and in addition we demand that women shall cease from artificial habits, tight lacing, social dissipation, useless lives, and that she shall devote herself to the true duties of womanhood;

We demand that men and women shall seek to prepare themselves for the duties of life, and shall not frivolously fritter away their energies on useless accomplishments;

We demand that parents shall train their children to habits of industry, frugality and temperance;

We demand that farmers shall cease raising hogs and tobacco, and that manufacturers shall make no more wine, cigars or alcohol for any except chemical or mechanical purposes.

And furthermore, in order to secure these demands, through which only we can acquire true freedom and independence, we pledge to the world untiring devotion to those principles which underlie them.

SUGAR.—A friend calls our attention to a paper in a recent number of Harper's Weekly on "Animal Sugar Mills," and asks our opinion of it. The article referred to is one of the many attempts made by Harper's Weekly to enlighten the public upon health topics; but we have frequently observed that the writers simply reflect what is popular on this subject, be it good or bad. "A love for sweet things is almost universal, therefore sugar is wholesome, and ought to be fed to children in unlimited quantities. Denying it to them is done at great expense of the muscles and tissues of the body, and should not be done." This is about the substance of the article. Now we do not deny that sugar may sometimes be useful. Some fruits are improved in flavor by it, if they are not in wholesomeness; but it is a very exceptionable article of diet, and its use *ad libitum* is almost always attended with derangement of the digestive organs, biliousness, decayed teeth, etc. All the sugar needed by the animal economy can be obtained in or manufactured from the starch in our bread and potatoes during the process of digestion. Our writer argues that sugar is furnished by Nature in milk for the child, which is very true, and so are many other substances, but we do not therefore furnish them in a separate form. Sugar-of-milk is one of the constituents of this article, made a part of it by the animal economy, and quite different from the sugar of the shops. Sugar is a constituent of many kinds of food. Many fruits are rich in sweets, and from them we should obtain it. Give to children sugar in the fruits they eat, and it will not only be a greater luxury to them than candy, but entirely wholesome. If sweet fruit was as abundant as it should be, sugar, even as a luxury, would be at a discount. Strawberries grown with the sugar in them in the right proportion are much superior to those sweetened by it afterward. Horticulturists grow sour fruits for market because they are large and coarse, and thus more profitable, and their bad quality is easily hidden by sweetening. They ought to raise the finer, more delicate, sweeter sorts, that require no additional sugar. Sugar does not assist in digestion, as our querist supposes.

COFFEE AND WINE.—A paragraph is going the rounds of the papers of which the following is the substance:

"At a recent meeting of the Academy of Sciences in New York, a paper was read detailing the results of experiments made to ascertain the psychological effects of different kinds of food when taken into the human system. Coffee and wine were stated to be types of two great classes of food which, acting through the body, have a determinate influence upon the states of the intellect and sensibility, and the nerves of sensation. Strong coffee swallowed slowly for a period of several days, after a fast of forty hours, quickened the mental powers but deadened the sympathies. Wine, on the other hand, taken in the same manner, awakened the emotional nature and intensified the feelings, whether benevolent or malevolent, but rendered the mind sluggish. The majority of articles used as food were regarded as occupying a middle place between these two classes."

It is very strange that our scientific associations will fool away their time listening to such nonsense as the above. If formed for the purpose of advancing science, let them pursue that end, and not spend their time in a way which can but result in intemperance and ignorance. There is not science enough in the

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paragraph quoted to give it the least title to respect, but it is simply a tissue of nonsense. "Coffee and wine types of two great classes of food!" They are not types of food at all, or even food. If the experimenter had kept on a few days longer with his coffee and wine diet, he would have ended where he could never have reported his investigations, but the people might have learned from it just the opposite of what he taught in his lecture. It is time we should stop calling things scientific unless they merit some claim to that name.

A GLIMPSE AT A GODDESS.—Mary Bradshaw's statue of Psyche is the figure of

"A perfect woman, nobly planned."

It is a pity that a perfectly formed human being should exist only in plaster or marble, and never in the reality of flesh and blood. Human beings so long ago lost their health, corrupted their constitutions, and damaged their beauty, that they now go to a mirror to see what poor creatures they are, but to a statue to see what grand creatures they might have been. One secret of the exquisite pleasure produced by a beautiful image of the human form is our discovery in it of our lost selves. Sculpture is thus an art with a holy mission; it confronts us evermore with a purer ideal of life. This may be said in a partial but not an equal degree of painting. The human frame and its capabilities of beauty, symmetry, dignity and nobility are more perfectly expressed by the chisel than the brush; the marble can be made to suggest greater purity, spirituality, and inherent divinity than can possibly be reflected from any canvas.

Having, therefore, long since parted, as a race, with our physical perfectness, we return with delight to every such fair counterfeit of human nature, in its best estate, as the sculptors are inspired to give us.

Mary Bradshaw's beautiful rendering of Psyche—that immortal creature who, from the days of the Greek myths until now, has represented the Human Soul—was dictated by a true idea of the end and aim of art; which is to inspire, instruct and elevate manhood. The patient, laborious and gifted woman who achieved this beautiful design, has sought to express by it, not only the mere rounded harmonies of the human frame, but still more, the residing human soul. Like a vase with a lamp in it, this statue is illumined by an inner meaning. Psyche, as the legend runs, has been made to believe that she is wedded to a monster. She rises in the night, lights her lamp and bends down in scrutiny over her sleeping lord. To her great joy she discovers him to be Cupid himself. This discovery so fills her with trembling that she spills a drop of oil from her lamp upon Cupid's body, which wakes him and he flees away. The moment which Miss Bradshaw has chosen to represent is the moment when the anxious bride holds out the lamp in her curiosity and suspense.

One sees at a glance that this is a statue of Psyche and of no other being, human or divine; it tells its story perfectly. This story has a perennial interest; and this embodiment of it to the outward eye is rich, mysterious and satisfying.

The gold medal of the School of Design in this city (an institution which owes its establishment to the munificence of Mr. Peter Cooper) was awarded to Miss Bradshaw in acknowledgment of the rare merits of her fine design—an award as creditable to the institution as to the artist, whom it has developed into one of the finest geniuses among the rising sculptors of America.

LICENSE.—The old question of license or prohibition is now being discussed in many places. Rev. John Pierpont, in a few four-line verses, gave the most correct view of this subject of licensing to do wrong:

"For so much gold we license thee
(So say your laws) a draught to sell,
That bows the strong, enslaves the free,
And opens wide the gates of hell.

"And will ye give to man a bill,
Divorcing him from Heaven's high sway,
And while God says, 'Thou shalt not kill,'
Say ye for gold, 'Ye may, ye may!'?"

STRONG GIRLS.—The papers announce that there are several young ladies, members of a gymnasium near Boston, Mass., who, though only from twelve to fourteen years old, lift with their hands four or five hundred pounds. We doubt, however, if this species of physical training, carried to any great length, is not injurious. It would be better to train the muscles in a more varied way; give them skill, grace, toughness, endurance. Let us not go to the other extreme in muscle-culture, and become only fit for hod-carriers.

A GOOD HINT.—A church in Columbus, O., has posted at its entrance the following: "Gentlemen will leave their tobacco at the door."

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Hygienic Home Treatment of Diseases.

BY E. P. MILLER, M. D.

Chronic Bright's Disease.—This is one of the most obstinate forms of disease that the physician is called upon to treat.

The functional derangements of the kidneys, as well as the structural changes which take place in their tissues in this disorder, are no doubt due to the deranged condition of the blood.

Bright's disease, like consumption, scrofula, cancer, rheumatism, etc., is but a local manifestation of a morbid condition of the blood.

In almost all cases of Bright's disease there have been previous signs of failing health in the form of dyspepsia, or derangements of the stomach, liver and bowels, and a general feeling of discomfort and debility.

CAUSES.—Whatever tends to deprave the quality of the blood may be regarded as a predisposing cause of Bright's disease; alcoholic stimulants, tobacco, pork, lard, pastries, vinegar, pepper, spices, diseased and decayed meats, stale oysters, drugs, bad air, exposure to malarial influences, etc., each and all have a tendency to produce it.

"Out of twenty-seven cases of this disease treated at Bellevue Hospital," during a certain time, "twenty-five were addicted to intemperance."

Dr. Aitken says: "Fermented liquors, such as alcohol, ale, beer, turpentine, ether, chloroform, and the like, are the agents which tend to that morbid state of the constitution, that impaired state of the digestive function which leads to Bright's disease." He also enumerates cantharides, irritant medicines and abuses of the sexual function as prominent causes.

A tendency to this disease is often inherited from parents. The poison of gout, rheumatism, scrofula and syphilis often produces it.

Medical authors differ with regard to the number of varieties of this disease. They agree, however, in the description of two very important changes which the kidneys undergo, one of which is termed the "large, white kidneys," and the other the "small, contracted kidneys."

The large white kidneys are often double or treble the size of the healthy organ; the color is a yellowish white, the surface smooth, and not notably softened. Upon cutting them, fat globules of extreme minuteness are discovered in the substance.

The "small contracted kidney" is much smaller than the normal size; it is red, hard and granular at the surface. Its substance is tough and fibrous. The tubes are closely packed together forming fibrous chords. This condition is generally associated with a similar degeneration of the liver and spleen.

Where there is a large amount of fat globules and oily matter in the large white variety, it is called fatty kidney; some authors consider this a distinct form.

The lardaceous or waxy kidney is a variety sometimes found, in which the cut surface has a smooth, semi-translucent appearance like wax. It is considered as a phase of the intermediate form.

SYMPTOMS.—General debility, pallor of the countenance and of the entire surface of the body; dropsy, generally commencing in the lower limbs or about the eyes and face; this is sometimes the first symptom noticed; feverish condition of the body; dry, harsh state of the skin, and sometimes chilliness; quick, hard, and often irritable pulse.

After a time there is pain in the loins and region of the kidneys. In the early stages there is generally a marked diminution of the quantity of urine, though there is sometimes an increase. If there is much dropsy there will be less urine. Sweating, purging and vomiting also diminish the quantity of urine. Frequent urination, accompanied by a sense of heat and scalding, indigestion, flatulence, etc., are frequent accompaniments; so, also, are vomiting and purging. Headache is common, and also neuralgia in different parts of the body; dimness of vision, amaurosis, and double vision. In fatal cases, dizziness, insensibility, delirium and convulsions usually precede death.

This disease can be definitely determined only by a chemical and microscopic examination of the urine. If albumen and any of the

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different casts or tubes spoken of in the previous article be found, associated with the symptoms above described, we may feel certain that we have Bright's disease to deal with. Sometimes this disease goes on almost to a fatal termination before its nature is suspected.

The greatest danger in this disorder is that the structure of the kidneys will become so much disorganized that they will not be able to eliminate the urine from the blood, and uræmic poisoning will take place.

Complications are liable to occur in consequence of the retention of urea in the blood, causing pleurisy, pneumonia, hepatitis, diarrhea, pericarditis, swelling of the glottis, and other local inflammations, which increase the difficulty and render it more liable to be fatal.

TREATMENT.—Although this is regarded as an incurable disease, yet, if taken in time, very much can be done to stay its progress and prolong the life of the sufferer.

This being a difficulty originating in a deranged condition of the blood, our attention should first be turned to improving the quality of that fluid.

The food and drink, the air breathed, the associations and surroundings, and all the habits of life should be such as to form the best quality, and a sufficient quantity, of blood.

Good, fresh, unleavened bread made of Graham flour, fruits, with rice, hominy, oatmeal, wheaten grits, and fresh vegetables, are the articles that make the best blood. Sweet milk and cream, butter and fresh beef may be useful in some cases, but should be eaten sparingly. Two or three varieties of food at a meal are all that should be taken.

Exercise should be moderate; violent gymnastics or hard labor is not admissible; passive movements will do good when given by an operator who is full of magnetism; horseback riding should be avoided, but carriage riding is beneficial; out-door life as much as possible in pleasant weather. Avoid damp, cold climates and guard against chills. A warm climate and a warm room, as well as warm clothing are indispensable.

The treatment should be directed not only to improving the quality of the blood, as above directed, but to removing the dropsy and eliminating the urea from the system.

The skin and bowels are the principal outlets, aside from the kidneys. The vomiting which occurs in Bright's disease is thought to be an effort to throw off the poison from the system, and it is therefore considered dangerous to arrest it; the same holds good with the purging. The vomiting may be aided by warm-water emetics until the contents of the stomach are removed. If, however, it should continue till it becomes exhausting, it may be modified by applying hot fomentations over the stomach, and giving the patient bits of ice to eat; enemas should be used unless the bowels are active.

In the Allopathic practice active cathartics are given; this probably produces the desired effect to a certain extent, but the irritation they produce and the absorption of the poison into the system, renders the blood more impure in the end than it was in the beginning.

Diuretics are also recommended, but their final results are similar to those of the cathartics.

The Turkish bath, the vapor bath, the warm bath, and the dry blanket pack, are the best means of exciting a vigorous eliminating action in the skin. These, especially the Turkish bath, are recommended by almost every physician who has seen them properly applied.

Dr. Austin Flint of Bellevue says: "The hot-air bath is the most efficient mode of producing diaphoresis" (sweating).

Dr. Aitken says the skin is by far the safest outlet for the urinary elements when the kidneys are not in a condition to act, and among the "best agents are the warm bath, and the hot-air or vapor bath."

In some cases, one of these sweating baths can be taken with advantage every day, while others would not require them more than two or three times a week. The tepid or cool sponge, or rubbing sheet, should be used after the sweat, and the patient be wrapped up warm and go to sleep if possible.

Other forms of bath, for promoting healthy action of the skin and improving the general health are beneficial. Among these are the half-bath, hip-bath, wet-sheet pack, and the wet girdle. Care should be taken to have the whole body warm after the baths.

The skin should be kept so warm as to be near the perspiring point nearly all the time.

The electric bath, applied warm enough to induce perspiration, will be of essential benefit.

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Answers to Correspondents' Notes and Queries.

BY A. L. WOOD, M. D.

Gastric Juice and the Stomach.—"In the May issue of your magazine I noticed an article in relation to the action of the gastric juice upon the stomach when not properly supplied with food, and I must confess it has troubled me some. I eat twice a day, but of course I can not keep my stomach supplied with food all the time unless I eat oftener. I want to know the truth of the matter. Will you please enlighten me in your next issue, if you have room, and much oblige one who is trying to be a Health Reformer."

It is a demonstrated fact that the gastric juice is not poured into the cavity of the stomach except upon the introduction of food or other excitants; hence will be seen the fallacy of the notion that the stomach must be kept constantly supplied with food to keep the gastric juice from gnawing away at and destroying it. The stomach should not be kept constantly supplied with food. It needs rest as much as the muscles or the brain, and must have it, or it will become debilitated and fail to perform its function. Twice a day is often enough to eat and better than oftener. Of course it is injurious to the system to exercise the mind or body vigorously unless it is properly supplied with food to repair the waste occasioned by exertion. The best time for vigorous and long continued bodily or mental exercise is not immediately after eating or after a long fast, but just after the completion of the digestion of a good, hearty meal, when the blood has become well supplied with the elements necessary to supply the waste always occasioned by severe exertion. Just as in starting a steam engine on a long journey with a heavy train of cars the engineer sees that it is well supplied at the outset with wood and water, so in preparing the human engine for great exertion care should be taken to have it properly supplied with food suitable for it, that it may quickly and thoroughly perform its mission with the least possible wear and tear.

Fever and Ague.—"Can fever and ague be cured hygienically, without the use of drugs? If it can, please indicate the means of prevention?"

Fever and ague *can* be cured without the use of drugs and cured permanently, and without any of the injurious effects which always follow the administration of drugs. For the mode of prevention and treatment see the October No. of THE HERALD for 1866.

Abscess.—"What is the cause and mode of treatment of this disease? Also, what length of time does it take it to reach maturity? Does it ever produce any serious results?"

An abscess is a collection of purulent matter in some cavity of the body or in the substance of some part or organ. It is one of the results of inflammation occurring in persons of feeble vitality or gross habits of living. Some abscesses reach maturity in a week's time while others require several months. When a collection of matter has taken place it should be opened by cutting or cauterization when possible. During the formative stage the diet should be very strict and the general habits carefully attended to. If there is much local heat and inflammation and general fever, cool or cold wet cloths should be applied locally, and the body sponged with tepid or cool water as often as may be necessary to keep the temperature at the normal standard. Lumbar abscess, mammary abscess and abscesses in the lungs often prove fatal when treated drugopathically.

Warm vs. Cold Food.—"Is cold or warm food best for a person of weak digestion and low vitality? About what temperature would you advise in such a case?"

Food not exceeding one hundred degrees of Fahrenheit is best and easiest of digestion. If much above that temperature it tends to weaken and debilitate the stomach; if much below it, it has to abstract a sufficient amount of heat from the system to raise it to that temperature before digestion can commence, and this abstraction of heat produces that chilly feeling after meals so common with persons of feeble vitality.

Enlarged Tonsils.—"I have a little girl three years old that suffers very much from enlarged tonsils. Is there any way to give relief besides cutting them off? Hers is an extremely bad case, becoming so troublesome at times that she can hardly breathe at all."

The best way in such a bad case is to cut them off.

Night Sweats.—"What is the reason why I have night sweats? I am a farmer and was never sick much."

A knowledge of your habits, bodily condition, etc., is necessary upon which to base a satisfactory answer. Querists should be more communicative when asking such questions.

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Eating without Hunger.—This is a very foolish and injurious habit, one which almost every one is more or less subject to. Hunger is the signal which nature gives to indicate the necessity for a supply of food. When the system requires food and is in a condition to make good use of it, it will call for it in its legitimate way. There are some exceptions to this rule in certain diseased conditions, but they are very few. The digestive organs are in the best possible condition for digesting food when the sensation of hunger exists, and they can then do it far more easily, thoroughly, quickly and with less effort than at any other time. Most people pay little attention to this; they are sure to eat whenever they are hungry, if it is so that they can, and they are just about as apt to eat when they are not, if it is convenient for them to do so or they chance to see any thing which "tickles their palate." Especially is this rule—never eat unless you are hungry—violated in sickness. In acute disturbances of the system the sensation of hunger is seldom manifested for the simple reason that the system does not require food. If food is eaten at such times, as it usually is, for every body thinks the patient will surely starve if he does not eat just so much and so often, it becomes a burden to the system which must be got rid of, for there is no use for it, and, as it will not do to let it remain in the stomach, the vital powers, which are engaged in the reparative process termed disease, are called from the work upon which they are engaged to remove the substances which are creating the disturbance. The result is that the reparative process is partially or wholly suspended, fresh operation, and a longer time will be required for causes of disease are added to those already in the remedial powers to repair damages and set the vital machinery in proper and harmonious action. Thousands of persons have been prematurely laid in their graves simply from eating heartily when the system was not in a condition to properly digest and appropriate the food. Let this rule be observed by those who desire health with all the untold blessings which always accompany it; whether sick or well, do not force food into the stomach unless there is a demand for it. No fears need be entertained of starving, for a desire for food will be manifested long before the starvation point is reached.

Milk and Torpid Liver.—"Should milk be eaten by a person who is troubled with torpidity of the liver?"

Most emphatically, No. Neither should sugar, butter or grease of any kind.

Pimples on the Face.—"1. Why do so many young persons have pimples on the face?

"2. Does the frequent use of the Turkish Bath finally remove them?

"3. Does living on a strictly vegetable diet during the summer, tend to keep them away?"

1. Because they overload their stomachs with gross, clogging, constipating food; do not take sufficient active exercise in the open air and sunshine, and do not bathe sufficiently to keep the skin in a cleanly, active, healthy condition.

2. If the diet is carefully attended to, the Turkish Bath will very soon remove from the blood the impurities which are the immediate occasion of the eruption, and strengthen the skin so that it can perform its work of depuration in a proper manner. It would probably remove and prevent them as long as the baths were taken without a change of diet, but the true way is to "cease to do evil and learn to do well."

3. It does, provided it is the *right kind* of a vegetable diet and eaten in proper quantities. Some consider butter, milk, sugar, etc., as belonging to a vegetable diet. A diet into which the above articles, together with hot fine-flour biscuits, rich pies and puddings and the like enter largely, will produce this difficulty if any thing will.

Wetting the Hair.—"You will oblige me by stating if water applied to the hair thoroughly and allowed to dry before brushing is beneficial or injurious. Sometimes I wet the head thoroughly with Croton water and bay rum, and don't know but it has the tendency to loosen the hair."

The head and hair need cleansing equally with the rest of the body, and water is the only proper fluid to do it with. It does not injure the hair, but improves it unless carried to excess. Constant brushing of the hair injures it, as does also the application of bay rum or other irritants, oils, etc.

Agricultural Papers.—"What papers are there devoted to agriculture which you could recommend for a farmer's use?"

"Moore's Rural New Yorker," Rochester, N. Y., and "The American Agriculturist," 37 Park Row, N. Y., are among the best.

Hand Mills.—"Please inform me where a small mill can be obtained capable of grinding Graham flour and cracked wheat for family use. Also the price."

Of Miller, Wood & Co., Publishers of THE HERALD OF HEALTH, 15 Laight St., New York. Price $3 00.

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Healthy Spices and Condiments.

MIRTH and motion prolong life.

WHY is a smile invariably behind the time? Because it is a little laughter.

WHAT is the difference between a battered dime and a new penny? Nine cents.

A BALL struck a little boy in the eye last week. Strange to say, the bawl immediately came out of his mouth.

A PHYSICIAN once advised Sydney Smith to "take a walk upon an empty stomach." "Whose stomach?" asked the wit.

A LITTLE girl, just returned from church, said, "A man passed around a plate that had some money in it, but I didn't take any."

A LITTLE boy, seeing a man prostrate before the door of a groggery, opened the door and said to the proprietor, "See here, sir, your sign has fallen down!"

"I SUPPOSE," said a quack, while feeling the pulse of a patient, "that you think me a humbug." "Sir," replied the sick man, "I see you can perceive a man's thoughts by his pulse."

AUNT E. was trying to persuade little Eddy to retire at sundown. "You see, my dear, how the little chickens go to roost at that time." "Yes, aunty," replied Eddy, "but the old hen always goes with them."

HEARING a physician remark that a small blow will break a nose, a rustic exclaimed: "Well, I dunno 'bout that; I have blowed my nose a great many times, and Iv'e never broke it!"

THE following colloquy took place between a surgeon and a rural patient, a few days ago, near Yeovil: *Surgeon to his Patient*—"Now, my boy, take this when you go up stairs to bed." *Boy*—"But e got no stairs, sir; what must e do, then?"

A GREAT philosopher says, in one of his letters: "I have told you of the Spaniard who always put on his spectacles when he was about to eat cherries, that they might look the bigger and more tempting. In like manner I make the most of my enjoyments; and though I do not cast my cares away, I put them in as little compass as I can for myself, and never let them annoy others."

"MADAM," said a cross-tempered physician to a patient, "if women were admited to Paradise their tongues would make it a purgatory." "And some physicians, if allowed to practice there," replied the lady, "would make it a desert."

A MAN lately made application for insurance on a building situated in a village where there was no fire engine. He was asked: "What are the facilities in your village for extinguishing a fire?" "Well, it rains sometimes," he replied, with great simplicity.

AT a fashionable dinner a gentleman observed a person who sat opposite use a toothpick which had just done the same service to his neighbor. Wishing to apprise him of his mistake, he said: "I beg your pardon, sir, but you are using Mr. ——'s toothpick." "I know I am. By the powers, sir, do you think I am not going to return it!"

MATHEWS' attendant in his last illness, intending to give him his medicine, gave, in mistake, some ink from a phial on a shelf. On discovering the error his friend exclaimed:

"Good heavens! Mathews, I have given you ink."

"Never mind—never mind, my boy—never mind," said Mathews, faintly, "I'll swallow a bit of blotting-paper."

A GENTLEMAN riding a very ordinary looking horse asked a negro whom he met how far it was to a neighboring town whither he was going. The negro, looking at the animal under the rider with a broad grin of contempt, replied: Wi' dat hoss, massa, it's jis fourteen miles. Wi' a good chunk o' hoss, seben miles; but if you jist had massa Jemmy's hoss! you're dar now!"

A BEAUTIFUL Parisian girl called on a lawyer of that city noted for his sagacity, to learn how she could compel a certain gentleman, with whom she had fallen in love, to marry her whether or no. "You must contrive to remain alone with him, mademoiselle, three times, and fifteen minutes each time, and have good proof of the fact," said the lawyer. "Very well, Monsieur," replied the girl. She called twice more on the lawyer, remaining alone with him about twenty minutes on each occasion, and at the close of the last interview informed the astonished man that he was the person she was after, and that she had her witnesses all on hand in the entry. He married her and was happy.

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Publishers' Department.

A Sewing Machine for You.—We have given away as Premiums a large number of Wheeler & Wilson's Sewing Machines during the past few months. We desire to give away one thousand more before the close of the present year. Who can tell an easier way to obtain the best Sewing Machine manufactured than to get 30 subscribers for THE HERALD OF HEALTH? There is scarcely a reader of this journal who could not obtain one by putting forth a little effort, and at the same time be the means of promoting the health and happiness of his friends and neighbors. Try it, one and all.

If you do not wish a machine for yourself, get your friends to join with you and procure one for some poor and worthy woman—a soldier's widow, perhaps, who has herself and children to support—and thus make her burden easier and her heart glad. Many have done this already, and experienced the reward of a noble deed. Ladies succeed best in this work, though none need fail. Try it!

Lincoln at Home.—It will be seen by reference to our List of Premiums for 1867, that for a Club of 16 new Subscribers and $20, each of these Subscribers will be entitled to a picture of "Lincoln at Home." This picture is a large steel engraving, which sells for $1, and in many places even as high as $2. There are very many engravings of Lincoln, some of which sell as high as $20 a copy, but in our opinion none of them have the same elements of popularity and are so characteristic of the man as this one. It was engraved from a photograph, and represents Lincoln and his little son looking over the pages of the Bible together, gathering strength and wisdom from the words therein. We are sure it will please every one of our subscribers to possess one, and we are happy to be able to make so liberal an offer with this end in view. It will be sent by mail prepaid.

Agents Wanted—We want agents, local and traveling, to canvass for THE HERALD OF HEALTH, Sexual Physiology, and Physical Perfection. Our agents are meeting with excellent success, and doing a great deal of good. We want one thousand more. All who desire to make money and do good at the same time will please address the Publishers for special terms to Agents.

To Querists.—We only answer letters in our Notes to Correspondents which are of general interest to all our readers. Persons wishing prescriptions made out for home treatment must, in all cases, send a stamp and $5 for consultation fee. Address Drs. MILLER, WOOD & Co.

Send Stamps.—Persons sending for circulars, or wishing answers to letters sent us, must inclose postage stamp to insure a reply. Three cents is but a small amount for one to pay, but when you pay that amount over three or four thousand letters it amounts to many dollars.

Filters.—See advertisement of Kedzie's Water Filter in another column. These Filters may be ordered of MILLER, WOOD & Co., at manufacturers' prices. They are the best made.

October Number for 1866.—We will thank all those who have the October number of THE HERALD for 1866, and do not wish to keep it, to mail the same to us.

Job Printing.—We are prepared to execute in neat, substantial styles, various kinds of JOB PRINTING: such as Pamphlets, Circulars, Envelopes, Billheads, Letter-heads, Cards, Labels, Small Handbills, etc., at the same rates as in all first-class New York printing establishments. Stereotype work done to order.

☞ Our friends in the country who wish neat and accurate printing, can rely on first-class work, by sending plainly written and well-prepared manuscripts. For terms, send sample or copy of work, state quality of printing material to be used, and the number of copies wanted, inclosing a prepaid envelope for a reply.

The Tree of Life. BY ISAAC JENNINGS M. D.—This is a new book now in the hands of our Printer, which we expect to have out, ready to fill orders by the 1st of September, next It is written in two parts, bound in one volume. Part First treats of Man's Spiritual Degeneracy, its nature and remedy; Part Second, Man's Physical Degeneracy, its nature and remedy. The author was for many years an Allopathic physician, but abandoned the use of medicines from a settled conviction that their tendency was to *do harm*, and not to cure disease.

In this book he gives the result of his observations and experience, and points out what he believes to be the true cause of evil and the remedy therefor; and the correct nature of disease and its cure.

Premiums.—Any person sending us fifty subscribers and one hundred dollars shall be entitled to fifty dollars' worth of treatment at the Hygienic Institute, 15 Laight Street, and any one sending us one hundred subscribers and two hundred dollars shall receive one hundred and twenty-five dollars' worth of treatment. This offer is open to all, but designed particularly for invalids who can not well afford to be at the expense of paying for board and treatment. By accepting this offer and putting forth a little effort they will be enabled to pay their way.

To the Reader.—Friends of the cause of human improvement who may see a copy of our magazine, are requested to lend a helping hand in extending its circulation, if only by their own names. Our aim is to do all the good we can in extending a knowledge of the laws of the body and brain. Many a person has cause to bless our labors, because he has better health from learning how to live, and better children from knowing how to rear them. Half the children born die before they arrive at five years of age. Why? Because of ignorance on the part of parents. Teach them the laws of life, and they would swell the lists of living men and women and bless the world.

Clubs.—To those who are forming Clubs for 1867 we would say, Hurry them up! Back numbers are fast disappearing. We have not had in any year so many new subscribers and so very many encouraging words.

What a Poet says.—The following notice is from the poet, Alfred B. Street: "I receive your HERALD OF HEALTH regularly and like it exceedingly."

City Subscribers.—Subscribers who reside in New York city or Canada, should add 12 cents extra to prepay postage, as the law requires that it be paid in advance.

Any Book You Wish.—We will send any book published in New York, prepaid by mail upon receipt of Publishers' prices.

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☞ Advertisements of an appropriate character will be inserted at the following rates: Short advertisements, 25 cents per line; thirteen lines, for three or more insertions without change, 20 per cent. discount; one-half column, $12; one column, $22; one page, $40. All advertisements must be received at this office by the 5th of the month preceding that on which they are to appear.

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The next term will begin on Wednesday, the 5th day of September, and close on the 5th day of February next.

In respect to location, grounds, buildings, furniture, apparatus, cabinet and facilities for instruction, this Institution has, during the ten years of its history, offered advantages unsurpassed. That these advantages are appreciated, its liberal patronage clearly testifies. No effort or expense will be spared to make all its appointments of the very highest order of excellence.

☞ Provision is made for Courses of Lectures—Literary, Scientific and Ethical.

For further information or admission address S. N. SANFORD & CO. jy-eow-3m-f

Lyceum Lectures.

The lecture delivered before the Y. M. A. last evening by George W. Bungay was a fine effort. All who were within range of the sparkling wit, fervid eloquence and resistless humor of the speaker, were more than paid for their fight with the elements which they made to reach the hall.—*Janesville (Wis.) Gazette.*

Those who desire the lecture service of Mr. Bungay for the coming season should apply at once to Mr. C. L. Torbert, Corresponding Secretary of Western Association of Literary Societies, or to Mr. N. E. Wood, 15 Laight Street, New York. jy-1t

The Young Lady's Friend;

A Favorite Monthly Periodical. Terms, 75 cents per annum. Premiums of Sewing Machines, Melodeons, Dress Patterns, Furs, etc., given to getter up of Club lists. Send 10 cents for Specimen Copy and List of Premiums. Address W. T. HORNER, Buffalo, N. Y. je-tf.

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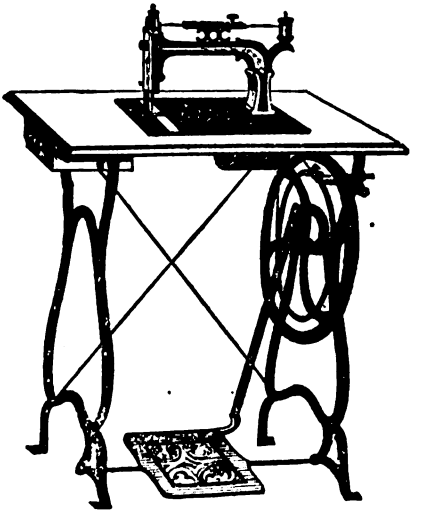
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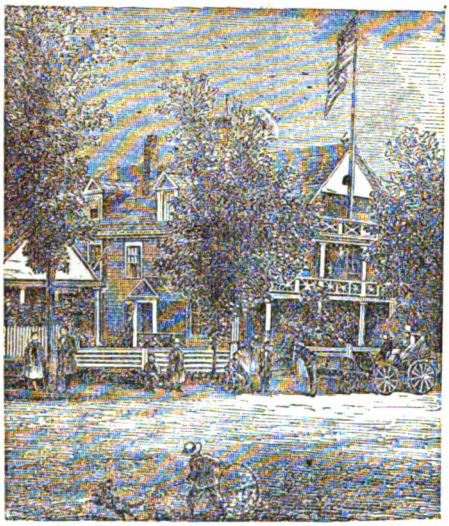
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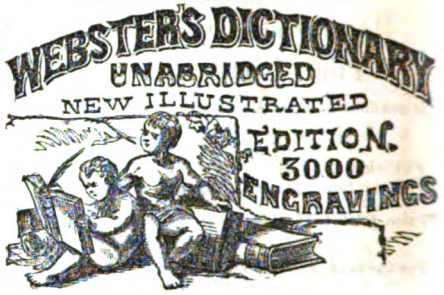
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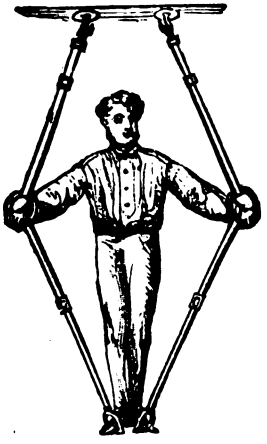
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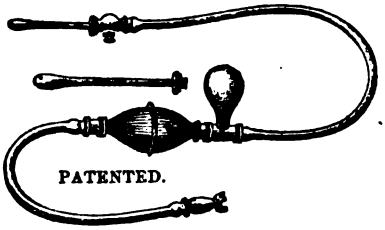
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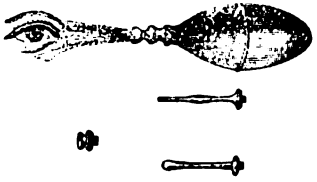
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DEVOTED TO

HYGIENIC MEDICATION, BODILY DEVELOPMENT, AND THE LAWS OF LIFE.

AUGUST, 1867.

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General Articles---Hygienic and Miscellaneous.

MINUTES

OF THE

Brawnville Athletic Club.

EDITED BY MOSES COIT TYLER.

V.

HOW GREAT TRUTHS LIVE IN GREAT HOUSES, AND NEED CONSIDERABLE CASH.

BRAWNVILLE, *June* 19, 1866.

AH me! What a chasm since my last entry in this history of our immortal Club! Not one word since last November! And the worst of it is I have no excuse to offer that any reasonable mortal would accept; unless it be the excuse which Gibbon once gave to a friend for delinquency as a correspondent: "I have been sorely afflicted with gout in the hand, to wit—laziness." I could also plead that my affliction has been greater than Gibbon's; for I have had that particular sort of gout not merely in the hand, but all over!

This inaction of mine has been all the more ignominious because events of the very first importance in the life of the Club have in the mean time transpired. For example: what event in the life of clubs or of men can be of greater importance, or of more precarious fortune, than getting born? Well, since I last wrote, our Club has had that experience. It has actually been and gone, and got born! It is! During any day of the past five months it could have said, in the eloquent language of Horace and Dr. Arnold, "*Vixi.*"

It has just occurred to me that the biography of this Club proves not unlike the biography of Tristram Shandy, a considerable portion of which is occupied in relating the history of that wonderful individual before he was born—a stage of human existence which people who write Lives do indeed seldom take notice of, but which, if accurately described, would explain many a curious mystery in all the succeeding stages. So far as I can at present remember, Lawrence Sterne and myself are about the only biographers that deserve to be called philosophers, for we went about the business of life-telling as if we knew what was what. We have had the good sense to recount the various careers of our heroes before they came into life!

Let me see. You remember—[by-the-way, who is "you?" How odd that I should say "you" in a lot of chit-chat written down for my own amusement. I suppose it is because I am a schoolmaster, and am so much accustomed to explain every thing to my pupils in that form of speech. So even when I am talking to myself I say "you" merely from force of habit; just as the fish-women near Edinburgh, whom Sir Walter Scott tells of, go to church on Sundays with their creels new washed and a few stones in them for ballast, simply because they can not walk steadily without their usual load. So I shall stick to my pedagogic privilege of having my own way, and shall talk to myself

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as if I were my own pupil]—you remember that tremendous mass meeting our villagers had last November; how Judge Fairplay made a noble speech on Gymnastics; how Deacon Snipp tried to frighten the Nineteenth Century into believing that going to a gymnasium was one of the seven deadly sins, because it would surely lead to dancing, billiards, ten-pins, croquet, and other abominations; and how, on the whole, the pious Deacon rather put his foot into it; how Parson Bland threw some light upon the subject, as was to be expected from one whose local name is "Sunshine;" how Dr. Drugger practiced on our gymnastic project with some very clever surgery, and, indeed, came very near cutting its head quite off; how the comical Abdiel Standish, with his quaint Yankee vernacular and his pugnacious jokes, turned the tables on both Doctor and Deacon, and covered them and their objections with the laughter of the town; and, finally, how the vote for establishing an Athletic Club in Brawnville passed by a great majority, and the Executive Committee was appointed, consisting of six ladies and six gentlemen, to raise the sum necessary in addition to Judge Fairplay's gift.

The Committee discharged their duties and had a report ready in an incredibly short time, thus rebutting the opinion which Mr. Spurgeon entertained of the dilatory habits of committees in general, when he said: "Why, my brethren, if the Lord had put the building of the Ark into the hands of a committee, it would not have been finished yet."

It must be confessed, however, that our Gymnasium Committee have had an easy task. In fact, their office was almost a sinecure. So great was the enthusiasm generated by our mass meeting that the people, without waiting to be solicited, came to the Committee and offered their subscriptions;* and within three days after the meeting the whole amount was raised.

As an attic philosopher—looking out from my uppermost story window upon this little world of Brawnville, and knowing the rest of the universe only by report—often have I been struck with the extraordinary power of cash in producing intellectual conviction. We Anglo-Saxons are not much addicted to idealizing; and we do not begin to have faith that a truth is a truth till we see somebody willing to put down the solid money in support of it. The most effectual plank in any platform, political or religious, is the one which holds the dollar on it. There appears to be no logic like the logic of a check on the bank. I have heard that when, twenty-five years ago, Cobden and Bright were pouring forth all their resources of argument and eloquence to induce the English people to go against the Corn Laws, they and their party were treated with ineffable scorn by the august London Times. One night it was announced that some members of the Anti-Corn Law League had got together at Manchester, and had subscribed £50,000 for the cause. Instantly that cause became respectable. And the next morning the Thunderer came out with this proclamation: "The Anti-Corn Law cause is a great fact."

Ah! a great fact! That is what we idol-worshiping mortals want. Do not talk to us about any of your beautiful ideals! Do not waste your breath in reciting in our hearing the lovely prophecies of the mystics! Do not think to gain our attention by any amount of eloquent chatter concerning the *might be* or the *ought to be!* Tell us what *is!* Give us "great facts;" and remember—no fact is a great one till it is planted on a circular piece of the precious metals!

For my part, I am under the impression that if Methuselah had come to Brawnville when he was a small boy, and had devoted himself exclusively to preaching Gymnastics till he had taken upon his venerable shoulders every atom of that huge load of "nine hundred and sixty and nine years," the mass of our people would have still remained deaf to what he had to say, unless he could have induced somebody to incorporate the subject in an appreciable modicum of legal-tender currency.

It is positively astonishing, the effect already wrought among us by the announcement that a particular number of thousands of dollars had been given in Brawnville in attestation of somebody's belief in Gymnastics. Only just now, and the cause of Gymnastics was a fancy—the mad scheme of a few enthusiasts. In eighty hours it becomes that-dignified, that irresistible thing—"a great fact!"

I almost expect to hear that Deacon Snipp will give in his adhesion; for what is Phariseeism but the worship of "great facts?"

Judge Fairplay proved himself the wise man

* I sincerely trust that this rather startling statement of the Schoolmaster's will not prove too large for the faith of any reader. I have abundant evidence that it is literally true. But what a model town Brawnville must be! Only to be compared with that other New England village where the people are so tender-hearted that they will not allow a skiff to shoot the mill-dam, or any musician to beat time; and where, when the day breaks, the people all turn out from sympathy and help it gather up the pieces.—M. C. T.

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we all thought him by foreseeing that the best preacher of sanitary truths we could have here would be a preacher some four stories high, made of brick, and silently proclaiming those truths from its roof-top to every passenger along the streets.

Let me go back a moment just to say that we did not wait for our Club House to be erected before we should commence the work of the Club. As soon as the Executive Committee reported that the funds for the building were subscribed, we regularly organized the Club—appointing Judge Fairplay President, having several Vice Presidents, and, beside the Executive Committee, a Board of Trustees. I, the village Schoolmaster, was appointed to the scribbling department—that is, I was made Secretary. We engaged a large room over one of the stores; obtained a graduate of Dr. Lewis's Normal School as a teacher; formed classes for grown folks as well as for children, and thus set to work. We have also held weekly literary and social meetings of the Club which have been intensely interesting and very beneficial. We have had at our meetings essays, poems, and extemporaneous discussions on health topics, as well as two or three lectures from local celebrities; and next winter we intend to invite lecturers from beyond our horizon. Under the wise and stimulating chairmanship of Judge Fairplay, the meetings of the Club are rapidly becoming a means of education, liberality, and health to this community.

I will now try to give some slight description of our brick preacher of Gymnastics. First of all, its name. We decided not to call it a Gymnasium. That word has been so grossly misapplied in modern times that it would convey no just idea of the versatile character of our institution, which, in directing attention to physical improvement, does not intend to ignore moral and intellectual improvement, too. We think that a fatal mistake has been made in these latter days by limiting the Gymnasium to the single task of cultivating muscle, thus depriving that very important function of the dignity and of the manifold sources of interest which really attach to it when connected with the culture of the total manhood of the gymnast. God has not isolated the physical nature from the intellectual and moral faculties. Why should man? Whatever in the universe is partial is also false, and therefore disastrous! We discard, then, the abused and degraded word, Gymnasium.

What have we in its place?

On a smooth marble slab, inserted high up on the facade of our edifice is this inscription, which answers the question:

BRAWNVILLE
ATHLETIC CLUB HOUSE.
ERECTED 1866.

So God created man in his own image.—GEN. i. 27.

I suppose that every man, woman, and child in the village has paused again and again before the building, and gazed upon this inscription long enough to have deciphered an Egyptian hieroglyph—pondering the mighty sermon suggested by that text of Scripture, so significantly petrified into its context. It has been amusing, also, to watch the farmers who, for purposes of trade, come to the village in their wagons from many miles around. As they drive through Main Street, and reach the point opposite the Club House, they invariably shout "whoa!" and, as if some great affair of state were to be considered, there they sit, solemnly studying the whole structure, perusing with especial gravity the inscription on its brow, and often holding serious—though sometimes also serio-comic—conversations with each other, or with the villagers, as to the probable nature of the building and the import of that venerable text. I had myself, the other day, a rather funny experience with one of these farmers. As I was passing near the wonderful house, I heard some one shout repeatedly: "Hello, Cap'n!" but having myself never enjoyed any military honors, I did not suppose that this salutation could be meant for me. Looking around, however, I discovered that I was indeed the object of it; the old farmer who was desirous of speaking with me evidently granting the title of captain by brevet as a means of conciliation. I turned to hear what he had to say.

"Hello, Cap'n!" he again shouted, though I stood waiting to hear. He evidently wished to assure himself that I had the gift of articulate speech before he should commit himself further

"Well?" said I, interrogatively.

"Look-a-here, Cap'n, what's that air shantee fur—a meetin' house?"

"Yes; that is, it is a house for meetings—meetings of the Athletic Club."

"What 'n thunder 's that—a new religion?"

"No, not exactly; though some people *do* call the members Muscular Christians."

"Musc'lar Christians, eh? Why, them 's Brigham Young's fellers—ain't they? them 's Mormons, I s'pose."

"O no, no; not by any means. The Mor-

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mons propose to give men more wives; the Muscular Christians propose to give them more health."

"Is that all the diff'rence, Cap'n?"

"No, not all; still it includes a good many points."

"Naow, look-a-here, Cap'n!" said he, with a ludicrously suspicious look, "dew yeu take me for sich a 'tarnal greenhorn that yeu think yeu can make me swaller that air yarn? Naow, tell me, Cap'n—honest—ain't that air shantee a Mormon meetin'-house? 'Cause I heerd down our way that Mormonism had lately busted out here in Brawnville, and that Judge Fairplay had got took with it, and Parson Bland, too, and lots o' other decent folks, and that there was nobody left to fight it 'cept Dr. Drugger and Deac'n Snipp. Naow, Cap'n, ain't that air the Mormon meetin'-house?"

I could not help laughing outright in the farmer's face at this droll illustration of the habit of Madame Rumor to perform whimsical pranks; and I thought how the Club would roar when I reported to them the reputation they were getting in the surrounding country. At last I managed to straighten my face sufficiently to tell him something about the real character of the Club, and to beg him to deny the wild reports he had heard; but the more I explained the more he was mystified. At last he drove away, muttering:

"Wal, whether that's a Mormon meetin'-house or isn't, it's the dreffulest queer lookin' shantee I ever seed, any how!"

Our Club House, I imagine, would not be a very noteworthy edifice in New York or Boston—though I can not speak positively, never having visited those Babylonian wonders. But there is no architectural monument in these rural solitudes half so beautiful and commanding.

As you ascend the stone steps and enter by the front door, you reach a sort of square lobby, paved with blocks of dark and white marble so as to form a sort of mosaic floor. On the right is the Superintendent's office, and on the left the reception room, while in front of you are double doors, through which you are admitted to the great hall of exercise. Within this hall, near the right-hand corner, is a door opening into the gentlemen's dressing room, and near the left-hand corner a door opening into a similar room for ladies. Above the lobby, the reception room and the Superintendent's office is a spacious room called the library, which is to be elegantly fitted up, and to be used for a reading room and for the literary and social meetings of the Club. The great hall is yet unfurnished. It is to contain ladders, swings, horizontal and parallel bars, weights and pulleys, iron dumb-bells, the wooden horse, a mimic fortress, and all the usual appliances of the most improved German Gymnasium; but a great space in the middle of the room is left free for the special work of the Dio Lewis Gymnastics. Around three sides of the hall are galleries for spectators. We have obtained from Dr. Lewis an invention as unique and efficacious in its way as is his own exquisite system of exercises; it is the model of a chair which can be folded up and placed in a rack at the side of the room, or taken again at an instant's notice and placed for use upon the floor. By this contrivance we are able, without the least trouble, to fill our hall with chairs for an audience to hear a lecture; and again, in a moment, as by the waving of a magician's wand, every chair shall disappear, and we ourselves be resolved into a gymnastic class ready for operations.

As I have already intimated, the interior of our house is yet incomplete. Our plans have been formed in consultation with three goddesses rarely consulted in America all at once—Liberality, Prudence, Taste. We believe that the rooms, when fully furnished, will be exceedingly attractive.

We expect to take official possession of our Club House next week, when we shall celebrate the event by a superb house-warming, in the shape of a great public meeting, with speeches, songs, and gymnastic exercises.

Lest I forget it altogether, I think I will now scribble down some of the verses which the literary meetings of our association have already evoked. They are not of a very ambitious character, being thus far inclined merely toward a familiar and humorous manner. I remember one set of verses which produced great mirth when recited to the Club some weeks ago. They are entitled "Almost a Scholar," and explain the rather tragical circumstances under which an aspiring bookman was induced to lay aside his towering aspirations. Is it not indeed one of the most hackneyed sayings of the didactic folk that great events do often spring from small causes? If Gray, who sang of mute, inglorious Miltons, and of village Hampdens guiltless of their country's blood, had but extended his life to the present and his observations to Brawnville, he might have added to his Elegy a line or two about the rustic New Englander who, but for a most pathetic reason herein explained, would have been a Bentley or a Scaliger. Here are the verses:

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ALMOST A SCHOLAR;*

Or, The Dyspeptic's Lament.

I once aspired to climb that mount
Where Learning's fane looms grand;
I bought more books than I could count,
And swore that at Castalia's fount
I'd drink—while I could stand.
Alas! what did my courage break,
And all my proud ambition shake
And force me Learning to forsake?
It was—ah me!—the stomach-ache!

Poor fellow! Was it not melancholy? I wonder if he were not in some way related to Bulwer Lytton's "Ambitious Student in Ill Health?"

The next series of verses is an attempt to weave into rhyme some of the enthusiasm generated among us by the Dio Lewis Gymnastics. This little poem is adapted to a very familiar tune, and it is often caught up and sung by the pupils as they march about the room or practice the exercises to which it relates. It seems to make no pretension to humor, or, indeed, to any thing else, except a devout wish to comply with Andrew Combe's recommendation of lustily using the voice while working the muscles.

THE SONG OF THE GYMNASTS.

RESPECTFULLY DEDICATED TO DIO LEWIS, M. D.,

Founder of the New Gymnastics.

AIR—Sparkling and Bright.

Now, Gymnasts strong, lift we high a song
For our Art and its triumphs glorious,
That leads the van for the health of man,
And is over ills victorious!

CHORUS:

Then work away, till a better day
On our pill-cursed race is shining;
For the "bell" and the "ring" shall defiance fling
At the fiends of Disease and Pining.

While vigor we quaff, we will sing and will laugh,
And with shouts we will make jubilation;
For all may have health, which is man's highest wealth,
And his heart's most devout adoration.

CHORUS—Then work away, etc.

We hail the glad time when a conquest sublime
Shall earth's bitterest anguish smother,
And to each of our band we pledge the warm hand
Of a friend and a true-hearted brother.

CHORUS—Then work away, etc.

The only other verses that I have preserved or can now recall are a few that, perhaps, have a deeper merit, as evincing, possibly, more thought, satirical point, and vigor of expression. They certainly touch upon a subject of vast importance to us all, and yet one which is sadly neglected—the reaction of our morbid physical moods on the intellectual and religious life. This little poem is entitled

SPIRITUAL DARKNESS.

In Granada of Spain, in the days that are fled,
Lived a famous old Bishop—rich, handsome, and stout;
And his homilies—so his parishioners said—
Though the good man had often been blistered and bled,
Had but one imperfection—they smelt of the gout.

So, now, many a parson, by greenbacks well hired,
From the Gospel's high message of happiness swerves;
And with toil and with prayer and with tea-parties tired,
Drones away at such Gospel as can be inspired
By bad air, soda biscuit, and worry-worn nerves.

Shall we wonder that Luther his ink-bottle threw
At the Devil, who came for a bit of a talk?
Who of us would not meet with his Devilship too,
And be scared for our lives to sing out even "shoo!"
Shut up for two years without ever a walk?

And full often the world seems all dark and forlorn,
And the heavens no longer will drop us a smile;
And the heart is oppressed, and the conscience is torn,
And we curse the black moment in which we were born;
All, because—there's excess in the item of bile!

* I would here say to the readers of THE HERALD OF HEALTH, for whose benefit this history of the Brawnville Athletic Club is made public, that the last time I visited that charming town I learned from my excellent friend, Judge Fairplay, that the verses contained in this paper, and in those which are to follow in this series, were composed, as I had suspected, by "the village Schoolmaster," though that gentleman's timidity prevented his communicating them to the Club except through the lips of his friends.—M. C. T.

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In our churches it is not more wealth that we need,
Nor round each loving sect a more tall picket fence;
Nor more sermons to charm us—e'en when they don't feed;
Nor more people to swear to a forty-foot creed;
No, 'tis this little blessing—'tis more common sense!

If mankind of itself half as much understood
As it knows of a horse, or a whale, or a leaf,
We should learn that the body and soul, for some good,
Are united on earth in a stern brotherhood,
And that each feels the other's least gladness or grief.

[TO BE CONTINUED.]

The Question of Muscular Power and Nitrogen.

In two numbers of THE HERALD OF HEALTH we laid before our readers an account of recent remarkable experiments by various physiologists on the functions of the animal economy, and especially with relation to the source and the *products* of our muscular power. These experiments appear to have been but the beginning of the researches which were and are in progress to determine the exact character of this question. We now propose to notice as bearing directly upon its solution, the most recent experiments by Prof. Parkes "on the elimination of nitrogen by the kidneys and intestines during rest and exercise on a diet without nitrogenous food, at the Nately Hospital. These experiments were undertaken to test the results arrived at by Fick and Wieslicenus with respect to the elimination of nitrogen during exercise on a non-nitrogenous diet, of which we have already given a full account.

The question at issue was whether muscular power is the result of the oxidation of the actual muscular substance, or of the elements of the unorganized food after digestion and absorption, but before conversion into organized tissue, and the object of the experiment was to determine the ratio existing between the waste of the tissues produced by a given amount of muscular work, and the calculated amount of force to be obtained from the oxidation of so much matter. We may recall that to determine this matter, the Professors having abstained for a given period from meat, bread, cheese, and milk, and, in short, from all food containing nitrogenous principles, carefully estimated the amount of nitrogen excreted during their ascent of a mountain, and they found, after having made ample allowance "for errors of observation," scarcely one-fifth of the energy required for the work performed could have been obtained for the amount of muscle consumed. Their mode of proceeding was to ascertain by exact analysis the amount of nitrogen expelled from the body, in accordance with the long-standing supposition that this element represented the exact waste of the tissue during exertion, and hence was a measure of the amount of previously exerted (muscular) power.

This is easily accomplished, because little or no nitrogen leaves the body except through the urine, not under its own gaseous form, but as a component in large parts of the urea voided, of which the nitrogen constitutes nearly one-half the weight, the urea being the substance supposed to represent the exact amount or waste form of the nitrogenous tissue of the body.

But the conclusions of these experimenters having been objected to, on the ground of the very short period over which they extended, and on account of the intestinal excretion not having been considered, Dr. Parkes undertook further experiments in order to test the value of those objections.

His experiments were made upon two perfectly healthy soldiers, and every care was taken to insure the most accurate results. The whole period of eighteen days, over which the observations extended, was divided into five periods, as follow:

1. A period of six days, during which the men ate a regular diet consisting of

Cooked meat;
Bread;
Vegetables (three-fourths potatoes, one-fourth cabbage);
Butter;
Tea (milk, one ounce; sugar, one and a half ounces);
Coffee;
Beer;
Water;
Salt;

and performed their ordinary work. During this period all the variations in their weight and in the amount and character of their egesta were carefully noted, in order to form a standard of comparison.

2. A period of two days of abstinence from meat, bread, milk, and all nitrogenous food but with the most complete rest from muscular activity.

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3. A period of four days, during which they returned to their former diet and occupation, in order that they might regain their normal standard.

4. A period of two days of abstinence from nitrogenous food, but during which they took a very considerable amount of exercise.

5. A period of four days of their regulated diet and occupation, in order that the effect of the last period might be noted.

During the first period it was found that the nutrition proceeded with the utmost regularity, and the excreta (both urinary and intestinal) proved to be perfectly normal. The amount of food was almost the same in each case, as may be seen from the table, with the exception that the larger man took nearly twice as much water as the other; the smaller man, therefore, took more solid food in proportion to his bodily weight than the larger man did.

The proportion existing between the amount of nitrogen excreted and the weight of the body was identical in the two cases, showing really, as Dr. Parkes says, "that a real connection must exist between body weight and urinary excretion." As might have been expected, the smaller man, T., passed more nitrogen in his intestinal discharges than the other did, since he ate the same amount of food and lost less in his urine.

Second Period.—The men were now placed upon a diet consisting of

Arrowroot (cakes and jelly);
Butter (containing no caseine);
Sugar; and
Tea (without milk).

The quantity was left to choice and appetite. Both took more water than formerly. They were confined to their room, and remained sitting still or lying in bed the whole time. Both lost weight—S. rather more than two and a half pounds, and T. about one and three-quarter pounds.

The results of the urinary analysis, when summed up, amount to this: that, on the mean of the two days, the urea excreted daily the first twenty-four hours was only about one-half of what it had been before, while during the last twelve hours it was in each case only one-third of the normal quantity. The total amount of nitrogen excreted varied in much the same proportion. On comparing the relation borne by the excreted nitrogen to the body weight, it was found that the tissues of the older and smaller man furnished a slightly greater amount than those of the young man; and this statement holds good both in regard to the nitrogen contained in the urea and the other excreta.

Third Period.—The men, at the close of this period, had gained what they had lost during the previous two days in body weight, and had in other respects returned to their normal standard.

With regard to the excreta, it was found that a certain proportion of the nitrogen of the food was retained in the body to make up for the previous deficiency, and to enable the tissues to recover that reserve fund of nutriment which had been so largely drawn upon. In the case of S., the amount of nitrogen retained represented one-fourth, and in the case of T., nearly one-third of the whole quantity taken.

Fourth Period.—The men were again reduced for two days to the same non-nitrogenous diet as during the second period. They ate more this time, their hunger was satisfied, but they complained of the monotony of the diet. They now took active exercise, walking on level ground at intervals during the day, after which they went to bed. On the first day they walked 23.76 miles, which, when calculated as work done, may be represented as follows:

S. lifted 453.6 tons one foot.
T. lifted 346.7 tons one foot.

On the second day they walked 32.78 miles—*i. e.*,

S. lifted 625.8 tons.
T. lifted 475.0 tons.

"The first day's walking was done pretty well by both men. On the second day both did the first twenty miles well, but felt very much fatigued during the last thirteen miles. During the last four miles each man had a pain in his back. Both, however, could have marched on the following day if necessary." Both men felt hungry. The food, however, satisfied their cravings. There was no perceptible action of the skin.

During these two days S. lost nearly four and a half pounds in weight, while T. lost rather more than one and three-quarter pounds.

The changes in the excretion of urea were as follow: During the first twenty-four hours a decrease of 15.5 grains was noted in each case; in the next twelve hours a further decrease of 7.7 grains took place; while during the last twelve hours, chiefly rest during the night, there was an increase of 30.86 grains in S. and 15.5 grains in T.

The total excretion of urea during these two days of exercise, as compared with a similar

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period of rest, was an increase of about 7.7 grains in S., and a decrease of 11.5 grains in T.

The total excretion of nitrogen stands: Secreted none throughout the entire period, the amount over that excreted during the period of rest being about 23. grains; while T. for the first thirty-six hours excreted no less than before, but made up for it during the last twelve hours, the excess being a little over 3 grains. But on balancing the total of the ingesta and egesta during this period it was found that in both men a considerable increase took place in the egesta of the skin, lungs, and intestines.

The men now returned to their regulated diet and exercise. At first they were both fatigued after the exertion of the previous day, and rested a good deal, and as might have been expected, they were more hungry than they had been after the rest period, and ate more largely; they almost entirely regained their weight in two days.

On estimating the excess of nitrogen excreted during this period, and taking into account at the same time the increased amount of nitrogen taken into the food, it appears there is no ground for supposing that in the case of S. this excess was derived from the disintegration of muscle which had taken place during the last period. It is probable, however, that the very large excess of urea on the first day of this period, which occurred in the case of T., was really owing to an augmented elimination during the work done. No such excess was observed in the case of S., who had had, however, a larger elimination than T. during the previous twelve hours.

A marked increase in the excretion of non-ureal nitrogen over the ureal nitrogen was noticed as a direct result of the exercise taken during the previous period. Dr. Parkes considers it probable that this nitrogen existed in the form of kreatinine.

The following important conclusions result from these experiments, in agreement with Fick and Wicslicenus:

1. That on a non-nitrogenous diet of fat, starch and sugar, exercise produces a slight but unimportant increase in the amount of nitrogen excreted both by the kidneys and intestines.

2. That during the period of actual work the amount of urea is diminished, proving that changes take place which cause either a retention of the nitrogen, or an elimination by another channel. It is evident, then, that the quantity of urea excreted can not be taken as an evidence of the amount of waste which the tissues have suffered.

3. That the amount of force expended during exertion is not merely the result of the oxidation of the muscle, nervous and other nitrogenous tissue of the body, but that a most important share in its production is taken by the non-nitrogenous (fatty and starchy) elements of the food previous to their transformation into tissue.

4. That a well-fed body possesses a sufficient store of nitrogen to allow of muscular exertion being continued for some time without requiring any immediate supply, but that food will shortly be required to replace the tissues which have been destroyed, and that this food must contain some one of the nitrogenous principles, either animal or vegetable—namely, albumen, fibrine, caseine, gluten, etc.

This last fact was very distinctly proved during the third and fifth periods, in which not only was the exhaustion consequent upon the starvation of the nitrogenous tissues severely felt, but a very notable quantity of nitrogen was taken and retained in the body to replace the former loss.

These results, beside their purely scientific value, may teach certain useful practical lessons.

Thus, in training for those exercises which require a great and sudden expenditure of force, it is a mistake to supply a too exclusively nitrogenous or meat diet, since four-fifths of the total amount of force has to be obtained from the oxidation of the non-nitrogenous elements of the food—fat, starch, sugar—while, on the other hand, the want of a sufficient supply of the nitrogenous elements—albumen, fibrine, caseine, etc.—leads to an inadequate renewal of the wasted muscular and nervous tissues, and the consequent formation of tissue which will be less able to bear any of the severer trials to which it may be subjected, and will ultimately lead to early degeneration and death.

TEMPERANCE *vs.* ABSTINENCE.—A case is recently reported of a father who believed in Temperance, but not in total abstinence. He did not much respect the man who could not govern his appetite. He laughed at those who signed the pledge, or refused to drink even moderately. He tried to bring up his only son, a promising lad, to use alcoholic stimulants moderately. This son has recently died a drunkard. A sad warning to parents who are not alive to the interests of one of the noblest reforms that agitates the public mind.

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Nature's Lesson.

BY GEORGE W. BUNGAY.

"Sun and shower, heat and wind, summer and autumn, spring and winter, wet and dry seasons, are the Turkish Bath of Nature, in which the animal and vegetable kingdoms thrive."

Tell me, ye sweet-lipped flowers,
Bathed in the golden sunlight and the dew,
Whose fragrant cups brim with the sparkling showers,
What Ganymede serves you?

Thy balm is like the praise
Of grateful hearts for richest mercies given,
Of robust life and length of happy days,
That lift us nearer heaven.

Do fevers overheat,
With quickened pulse, thy pure transparent veins?
Does thy sweet sap with buoyant forces beat
In the descending rains?

Alternate sun and shade,
Wind, heat, and rain prolong the life of flowers,
And the most delicate are unafraid
Of the swift bath of showers.

Tell me, stout forest oak,
King of the woodlands, upright, firm and true,
Scarred by the lightning when the thunder spoke,
What gave such strength to you?

A whisper soft and low
Came from the leaves that trembled in the air,
And, if I understood the overflow
Of leafy language there,

The monarch of the wood
Said that his strength was due to sun, and rain,
And changing seasons; then I understood
Why circles in his grain

Counted the centuries:
He kept unbroken Nature's sacred laws,
Grew great in girth and rose toward the skies—
Effects that followed cause.

Tell me, sweet singer, why
There is no sadness in thy joyful strain;
Thy nest is open to the summer sky,
Its lightnings and its rain.

Do any troubles tease
Thy temper into fretfulness and strife?
Is there no sickness, is there no disease
To cloud thy songful life?

The little warbler's head
Turned sideways as he looked beneath the tree,
Then spread his wings. I thought that he had fled,
Until his melody

Come from a taller limb.
Unskilled in music and the speech of birds,
I can not give the language of his hymn
In verse of human words.

He dipped his songful bill
Into a drop of dew upon the spray,
Then raised his head at his sweet will,
As saints do when they pray.

He picked a berry then—
It seemed the bounty of the listening trees—
Piped to his mate, and then he sang again
To the applauding breeze.

O Nature, mother dear!
Teach me the laws that birds, and trees, and flowers
Obey; that what I see and what I hear
May strengthen all my powers!

TEMPERANCE.—Horace Greeley, in a recent article on Temperance, truthfully says: "Friends of Temperance! we have to fight for every legal regulation which tends to diminish the evils of rum-selling. We must educate the people, but especially the yet uncorrupted youth. Every child of a tippler should be surrounded, wherever possible, by the influences of our literature and our personal monitions. Sunday schools should be made the means of distributing Temperance tracts, not only to those children who attend them, but to their neighbors who stay away. We must triumph in the end; but Appetite is a formidable foe, and our efforts must be untiring until a generation, fully rooted and grounded in Temperance truth, shall have lightened the labors of our successors evermore!"

I HAVE known men who were possessed of good qualities which were very serviceable to others, but useless to themselves; like a sun-dial in the front of a house, to inform the neighbors and passengers, but not the owner within.—*Dean Swift.*

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The Love of Money.

BY REV. HENRY WARD BEECHER.

We read in the Scriptures that "The love of money is the root of all evil." Whether this is true depends upon the emphasis with which you read. If you say, "The love of *money* is the root of all evil," it is not so; but if you say, "The *love* of money is the root of all evil," it is so.

Money never does any thing that is good or bad. People do that seek it or use it. Money —what is that? It is the representative of property. What is property? It is the representative of human thought and skill. It is a symbol, and represents what man has done upon nature, and is itself a benefit. And it is not money that is the root of all evil, or property, but the ways that men pursue who seek it, or who have obtained it and are using it.

Now the love of money, whichever way you interpret the word *love*, is full of mischief. If you interpret it as an affection, it is idolatry to put your love upon property; or if you interpret it as an appetite, then it is worse than idolatry. It is vulgar and base to desire property through lust and for lust.

Many persons suppose it to be the duty of a minister to bear testimony against riches; but I think it is not. Many persons will expect me, according to the professional traditions, to give a good, round denunciation of money-seeking; but I shall not. Indiscriminate abuse of money or property, and of the searching for them on the part of men, does no good. Whether these things are right or wrong depends entirely upon the motives that actuate men, and the methods and measures that they pursue in regard to them.

Riches now occupy, and have always occupied, the most important part in the divine economy of this world. Of the lower grade of instrumentalities—that is, those that are non-moral in their nature; of material and economic agencies, it may be said that God has employed none so much, and that none are so nearly universal and indispensable to the divine ends in this world, as riches. It is all in vain to decry that on which human life stands; on which society is built; on which civilization depends; which, when you take a single step in advance, rises to your need; which is the universal instrument not only of the bad, but also of the good. It is worse than folly to denounce it. And if it be so useful and indispensable, then the seeking it can not by any kind of reasoning be made to appear so bad.

The very first steps in civilization are, in the providence of God, those which are unfolded through the making of property. When a man begins to develop property, to save it, to guard and defend it, he is taking the first steps, though they may be very low, remote, infantine, in civilization. A nomadic tribe, or a tribe of Indians, will remain stationary. It is not probable that the nomadic tribes of Arabia are one single degree different to-day from what they were in the days of Abraham. They have not trafficked nor manufactured, but have lived a wandering life, without accumulating property. They stand after four thousand years just where they will four thousand years hence, unless some revolution takes place among them.

The elementary virtues are wrought out, in the providence of God, through the process of wealth making. And foresight is one of the first elements in this process. It is the foreseeing of events. Living by foresight is living by faith. Light before a man can see is but faith. And the process of wealth making requires this element, though it be in its nominal form.

Self-denial is another essential element in this process. Even the least civilized tribes, for the sake of greater good, are obliged every day and hour to refuse their desires. It may be a lower form of self-denial. They would prefer indolence, if it were not for the prospect of the fruits of wealth. They maintain their steadfastness of research for wealth, and deny themselves ease. And though it is a low sphere of self-denial, it is *a* sphere and *an* experience of self-denial.

So fidelity to engagements, and truth in the relations of men—these belong to traffic. They are violated often; but they are kept ten thousand times more often. All this railing about the equivocations, deceits, and lying of men is but partially true. There is a great deal of unfaithfulness; but there is a great deal more of the other thing, or else life could not cohere. If it were true that men more often lied and betrayed their trusts than otherwise, society could not trust man. And all the confidence that man puts in man throughout the realm of business is an irrefragible evidence of how much truth men do tell after all, and how trustworthy they are after all. There could be no cohesion in society without these qualities. And in spite of all their obliquities, in the main men can be relied upon in their dealings one with another. And this fact is largely attributable to their efforts to acquire wealth.

Respect for others' rights as a way of securing our own, is the result of traffic; and fru-

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gality and economy are important drills which you can get nowhere else better in the lower forms of civilization than in the process of securing wealth.

The importance of wealth may be seen as an educator.. When you look at riches in this point of view they become a record. They are a witness of what men have thought, felt, striven after and obtained. They are a history, and a history, too, of an honorable part in human development. It is thought applied to nature, and skill applied to nature, and riches are the result which is wrought out.

Commerce, which is a generic term for the methods of gaining, has always been a civilizer, and is destined, where the moral element is still more infused into it, to be more widely and potentially civilizing. Nations following commerce are to-day in the lead throughout the world. And it is because wealth seeking produces life in both the human soul and mind. Of all other things the general condition of life —life in the head and life in the heart; the waking men up and stimulating them to develop themselves—this is the grand condition of development and success. And commerce tends to wake men up thoroughly. Men go to sleep behind the plow, but not generally on the ship or in the store. Commerce that not only stimulates where it is, but throws back its motives and its *stimuli* to the remotest beginnings of industry, and keeps men alive—it is not virtue, to be sure; still less is it religion; but, after all, it is the indispensable condition of both that men should be alive and awake; and any tendency in the community that rouses men up, and keeps them vigilant, and full of feeling, and thoughtful, can scarcely fail to inure to their moral and religious development.

All the institutions of society which enrich and ennoble human life require wealth for their existence. The time has gone by when men can rail at wealth as incompatible with religion and virtue. Schools and colleges were impossible but for accumulated treasure. Books and newspapers, that have become as indispensable as food—these were impossible except in communities where there is treasure accumulated. Churches could not be built, and their services could not be maintained, except on accumulated capital. Hospitals, relief asylums, all eleemosynary enterprises, depend upon conditions of wealth. Art could not long flourish where there was not wealth. Literature and learning depend upon wealth. Not directly and visibly in every case; but communities that have to labor from day to day for the necessities of life have not the time nor the means to pursue higher aims and ends. It is only where wealth has been accumulated that men rise from sordid labor for the bread that perishes, and begin to give life to higher ambitions and nobler elements, such as art, literature, and learning.

The great evangelizing works of the age, and the Christian religion since it began its reign, have depended upon riches for their power to go forth. Poverty could never have preached the Gospel in all the earth. For, although the men that first preached it were poor enough, the communities in which it took root, and which gave it final organization and power, and made it dominant in the world, were the communities that then represented the wealth of the world.

It is not therefore at all extravagant to say that riches are the indispensable conditions of national prosperity, and the indispensable concomitants of the spread of moral and religious life in the world. They are not the only conditions and concomitants, they are not the most important; yet they are indispensable.

Virtue is, of course, a great deal better than a man's body; heroism is a great deal better than a man's body; faith, and love, and fidelity, and truth are a great deal better than a man's body; and yet, I should like to know how a man is going to have truth, and fidelity, and love, and faith, and heroism, and virtue, who has no body. And as we say that the manifestation of the soul pre-supposes a living body under it, without which it can not act, though it be superior to the body, so I say that though religion is transcendently more important than wealth, wealth underlies the progress of religion.

Individuals may live noble lives and yet be poor; but communities can not. Individuals can, because individuals living in a community as it were imbibe that which belongs to that community. A man may be individually poor in a community, and yet he may be influential; he may have great power of producing impressions; and it may be argued, therefore, that poverty is favorable because there is such an instance. But the argument is fallacious. Because individuals may be poor and yet be very noble, it is not to be inferred that communities can. Poverty in communities is a blight. If you can not raise nations to a condition of affluence, you may just as well make up your mind that you can never raise them far in the direction of civilization. Wealth is indispensable, as God has organized human affairs, to the elevation of nations; and though wealth is

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not the most important thing, it is not to be argued against.

The old notions of the intrinsic benefits of poverty are exploded. Poverty accepted for a moral end may become a very great power. We have an example in the language of Scripture, "That, though he was rich, yet for your sakes he became poor, that ye through his poverty might be rich." Where a man has riches which he lays aside for the sake of the benefit of others, or where a man has power to accumulate wealth, and turns that power in the direction of benefiting others, men know that the moral example of renouncing wealth for the sake of greater good for men under such circumstances is exceedingly valuable.

A Moravian missionary attempted to preach to West India slaves, but their life was so wretched, as the result of the oppression of white men, that they would not hear a white man preach, and he saw that in the relation which he sustained to them it would be impossible for him to benefit them; so he sold himself into slavery among them, and came home at night from the tasks of the day feeling the same weariness that they felt; and then they would open their ears and hear his consolations in Jesus Christ. Such servitude was noble. Such poverty was admirable. It was the literal verification of the example of the Saviour.

Therefore, there are circumstances where poverty may be accepted as a means of doing good. But poverty is praiseworthy only where it has a distinct moral end, and where there is voluntariness in it. It does not follow that the next man who is poor, because he does not know how to get rich, is to be commended for his poverty. Poor-houses are not the best places to get impressions of religion and morality. Poverty is an evil. It is to the individual an evil, and it is to the community an evil. A noble nature may redeem his poverty; but, nevertheless, generically it tends to sink men, to restrict them, to diminish their strength and resources. It tends to breed temptations which it is extremely difficult to overcome. It is unfavorable to refinement. It is unfavorable to all the great elements which are inspired by God's spirit and nourished by God's providence. Poverty is never to be sought. Even as far back as the days when the Proverbs were written, Agur said: "Give me neither poverty nor riches." The extremes breed violent temptations. Poverty certainly does. Wealth we know does. Now, with such views, I do not think it to be wise, I do not believe I would best serve the interests of the young, if I were to indulge in indiscriminate railings at riches, and attempt to dissuade them from seeking wealth. We are living in an age and in a nation in which I think it is your duty to be rich if you can, and in which, if you can not be entirely rich, it is your duty to be somewhat so. No man in business ought to set before himself any other purpose or model than that of, according to the measure of his power, achieving this instrument of usefulness.

Nay, I advocate riches. The time is coming when the world will be rich. The time is coming when men will be rich in large numbers. And Christians may as well try it on now as later. I do not believe that the world is going to be scrawny, bareboned and undecorated for ever. The God of grace is the God of beauty; the God of love is the God that made the heaven with the sun therein that shines by day, and the stars that shine by night; and I believe that that God who is full of taste and full of variety and full of beauty, has ordained that men shall be rich in the future state of the world.

Moral Therapeutics—Despondency.

BY REV. JOHN B. BEACH.

Who is altogether a stranger to depression of spirit? Who abides in such an unclouded sunshine of hope as not to know the meaning of the word *despondency*? Some, no doubt, there are of so robust and healthful a make that the burdens of life sit easily upon them. They are inclined by nature to cheerful views of life. Hope sheds a pleasing luster over whatever is disagreeable in their circumstances; fortune deals kindly; their schemes prosper; and no great sorrow ever darkens the life of the soul.

But not so others. Only a few, it is to be apprehended, uniformly take this cheerful and natural view of things. By far a greater number have a varied and fluctuating experience, being sometimes exalted and often depressed; while not a few are habitually a prey to melancholy feelings. The evil of which I speak is indeed formidable in the extent to which it prevails and in its interference with the proper use and enjoyment of life. It is confined to no age or class or condition. Youth, manhood, and old age, the rich and the poor, the high and the low, alike feel its blight. It is the skeleton in many a household.

Despondency is dejection of mind under the pressure of real or fancied evils. And I suppose it needs no labored argument to prove that many—perhaps I should say, most—of the

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evils of which mankind loudly complain, have their ground in nothing more substantial than the imagination. Equally evident is it that these fancied evils are as fruitful a source of misery as the real ones; more so, in fact, one is often tempted to believe. A real calamity falling upon a person of a healthy mind, finds him not wholly unprepared. There is a reserved fund of native vigor which enables him to bear up against the blow; whereas, an imagination morbidly apprehensive of evil, enfeebles all the powers of resistance and gives the soul up a helpless prey to its fears.

Those of my readers who are subject to despondent feelings can bear witness, I think, to the truth of this statement. When in your calm hours you review your past experience, what seasons does memory fix upon as marked by the deepest dejection and gloom? those in which the hand of divine Providence rested heavily upon you in affliction? when your hard-earned wealth was suddenly consumed by the devouring elements, or was wrested from you by the dishonesty or the incompetency of those whom you trusted? Was it when sickness invaded your household, and the music of little pattering feet was turned into the solemn hush of death? Was it when the pride and stay of your house fell in the tide of battle? No, not *then*, you will bear me witness, not then did the shadows gather thickest about your spirit, and heart and hope quite fail you. There have been times when you reached a lower deep of misery. Whom the Almighty doth afflict he also comforteth; and the soul whom he leadeth through the valley of humiliation often sings in the fullness of its serenity and trust. The hand that wounds also pours in the healing balm. But the wounds which have the least alleviation are precisely those which the soul inflicts upon herself.

Can you not remember times when, without any apparent change in your circumstances or your fortune, you felt oppressed as by the weight of some serious calamity, seasons of great depression and gloom, when you were ready to bid farewell to hope and joy, believing that no good was in store for you either in this life or the next?

Perhaps you fancied yourself singled out from the mass of your acquaintances to be a mark for the shafts of fortune, an ill-starred wretch doomed ever to drain a bitter cup and to show how much the human spirit can bear. You felt a lofty pride in your unhappiness. You wrapped yourself in gloom as in a becoming garment. Friends were kind and attentive as usual; Providence withheld no wonted blessing; but you refused to be comforted. You persisted in taking the most hopeless view of every subject that came before your mind; and in this species of self-torment you felt a certain grim satisfaction. "Do I not well to be sad?" was your prevailing feeling. Life seemed a worthless burden; cheerfulness was hateful; laughter, mockery and madness; and the prayer of your heart, if not of your lips, was, "Take now, I beseech thee, O Lord, my life from me; for it is better for me to die than to live!"

Or, perhaps, your spiritual malady has assumed a milder and more inoffensive type. With no repinings at Providence, with no contempt of pleasure, and no disregard of the happiness of others, you have come to regard yourself as the weakest, the most worthless and insignificant of mortals, a cypher in the midst of human quantities, a blank in the scheme of existence. Unmistakably

"This is the very coinage of your brain,"

yet for you, at the time, it has all the force of a terrible reality. You look back upon your past life with utter disgust. The sum of what you have accomplished appears to be nothing, and the future holds out no better promise. You seem to be cut off from the current of life and inspiration which bears others on to success. As a waif you wander uncared for and alone, objectless and without a destiny. Oppressed with a sense of timidity which to stronger and healthier natures appears simply ridiculous, you desire nothing so much as retirement, and to pass the measure of your days among a few chosen friends quietly and without notice. You shrink from great enterprises, fearing that failure and disgrace are fated to attend you. Even common duties of a public character appear formidable; and no advantage society has to offer could tempt you to enter the hot and dusty arena of life, where eager multitudes are crowding and elbowing each other for the prizes which are awarded to the most energetic. Thus, with talents which ought to win for you a way to usefulness and honor, and with moral worth which endears you to a little circle of friends, you accomplish nothing, because you lack the inspiration of hope and a just self-appreciation. You rate yourself far below your actual value, and so lose more than half your working power. Your will is spell-bound by the potency of evils which have no existence save in your own imagination.

Despondency is a misfortune which, I apprehend, in some degree touches nearly every body

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People are often unhappy, though they scarcely know the reason. Many strive to keep the even tenor of their way, but find themselves unawares plunged into melancholy moods and fits of great depression. They could not, if they were asked, define the cause of their despondent feelings. It is nothing in particular, but every thing in general. Sometimes it assumes the form of an indefinite apprehension of impending evil. The patient perhaps fancies he is going to die; but there are no external indications of serious disease, and his apprehensions are not shared by others. Or he thinks he is tending to bankruptcy; the extravagance of his family will surely bring him to ruin. Yet, if he would consider, his property is safely funded, his dividends are regularly paid, the expenses of his household do not greatly vary from year to year, and when every want has been provided for, there is always something left for charity, and something to be added to the future inheritance of his children.

In others this periodical weakness shows itself in an indefinable sense of personal wrong and injury. From the language which some people use at times you might infer that they were the victims of a settled conspiracy. Society, one would suppose, had deliberately combined to ruin their peace and happiness. Their neighbors systematically neglect them, and contrive in all possible ways to exclude them from the advantages of good society. The professional man thinks he does not command the influence which his talents or his industry entitle him to, and makes himself thoroughly wretched in brooding over the supposed ingratitude and injustice of the public. You may hear parents complaining that no children are so troublesome and incorrigible as their own; and yet to disinterested observers their children appear in no important respect to differ from the average lot of juvenile humanity. Have you never known housekeepers who had unlimited resources at their command, and who, one would suppose, had succeeded in surrounding themselves with every convenience and appliance and luxury that the science of domestic economy could supply, make themselves a positive nuisance to the whole circle of their acquaintance by the persistency with which they inflict upon others the story of their never-ending domestic troubles and cares? At the same time you shall see the wife of some poor mechanic or day-laborer, in a home bare and cheerless, singing at her tasks from morn till night.

It is not in the power of fortune to confer happiness upon its possessor when a quiet and equable temper is wanting. This is true wealth, which can gild the humblest abode, and make even the absence of gold a secondary evil. The world is full of suffering, discontent, misery. We are none of us quite exempt. But in general the depth of the soul's disquietude bears no proportion to the real weight of the calamity it is called to endure.

What shall we then say of these things? How shall we deal with the disconsolate, the gloomy, the desponding? Shall we meet them with banter and jest and ridicule? No one would venture upon such a strain who had himself been subject to the same temptation. The sick soul revolts from every appearance of coarse levity and clings the more closely to its gloomy delusion. Shall we try the appeal to conscience, and charge home upon the soul the guilt and wrong of cherishing a bad spirit? Let this be done, if at all, with great care. Some casuists instead of healing the hurt, do but pour vitriol into the smarting wound. They speak of despondency as inexcusable and sinful. It is because they have no knowledge of the feeling. To my apprehension it is quite as often of the nature of a misfortune as of a sin. I am aware that it is necessary to speak with some discrimination. Cases, no doubt, there are which appear like willful ingratitude and discontent and wicked distrust of the infinite Providence. But I am convinced that in a far greater number of instances the sufferer is a victim of unfavorable influences which, were he enlightened as to their real nature and source, would lose nearly all their power, and might by a reasonable amount of energy be overcome; but for lack of this knowledge they are not and can not be directly under the control of his will. The causes of despondency, it is evident, are oftener physical than spiritual. They have their seat in the body rather than in the mind. "We would fain believe," says a modern writer, "that the mind has power over the body; but it is just as true that the body rules the mind. Causes apparently the most trivial, a heated room, for instance, want of exercise, a sunless day, a northern aspect, will make all the difference between happiness and unhappiness, between faith and doubt, between courage and indecision." In spite of reason, in spite of philosophy or religion, the flesh with its unnumbered infirmities will react upon the spirit. While the brain is clouded with the vapors of disordered digestion there can be no large inspiring views of truth, there can be no cheerful thoughts of God or man. The atmosphere we

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breathe in our parlors, our dormitories, our places of business, our churches, determines our spiritual states as well as the company we keep. It is not in the nature of things that one whose nervous energy has been exhausted by protracted study or by confinement to some absorbing occupation, should experience any vivid satisfaction in spiritual or temporal things. It would be no matter of surprise if even a reasonable man should under such circumstances find little pleasure in his own thoughts, or appear downcast and uncompanionable to others. Yet people do not always thus wisely judge either themselves or their friends. When Edward Payson had violated physiological laws by plunging indiscreetly into the excitements incident to the management of an old-fashioned revival, and, after days and nights of continuous preaching and praying and exhorting, found himself laid up at last from sheer exhaustion, he mistook the fretfulness and despondency, which were merely the signs of overwork, for the motions of a depraved heart, and doubled his misery by ignorantly supposing that God was hiding his countenance therefor!

It will greatly help us bear the burdens of a melancholy temperament, if we understand the *cause* of our troubles, for then we can not only be on our guard against exposure, but when the fit is on us we can at once apply the remedy which lies in our power.

Despondent feelings frequently arise when one lacks employment, or is occupied with matters which allow the mind too much leisure. Under such circumstances persons of a certain temperament are prone to conjure up and brood over a train of imaginary sorrows. If they can not find them in the present, they will be sure to import them from the future. Let such beware of too little work, or of that which is not of the right kind. Any occupation which confines the thoughts to a narrow channel, which does not admit of occasional excitements and diversions and considerable variety of interest, is sure, if persevered in, to result in damage to the character. The statistics of insanity conclusively prove that the mind will not bear exclusive action on one subject. "This," according to that eminent physiologist, Dr. Hall, "is the key to the so frequent cases of derangement and suicide among farmers. Their subjects of thought are too few; their life is a ruinous routine; there is a sameness and a tameness about it, a paucity of subjects for contemplation, most dangerous to mental integrity. It is too much the case with our farming population that they have no breadth of view; they can not sustain a conversation beyond a few comments on the weather, the crops, the markets, and the neighborhood news. And it is worthy of note," he continues, "that their remarks on these subjects are uniformly of the complaining and unhopeful kind, as if their occupation and their thoughts were on the same low and depressing level. This is because the mind is not used enough; is not waked up by a lively interest in a sufficient variety of subjects to promote a healthful tone."

Let us hear the conclusion of the whole matter: Agreeable occupation for the sedentary, repose and recreation for the overtasked, pleasant and congenial companions for the recluse and the solitary, and stated and fitting amusements for all, are Nature's helps to happiness and virtue and her divine restoratives to health and sanity. These it is our duty to seek with proper earnestness as the appointed means of our culture. If, after sufficient trial, we become convinced that our circumstances or our occupations are not suited to our temperament, we ought as a matter of conscience to make a decided effort to change them. But after we have done all that lies in our power, we shall still find in our lot much that will try our temper and tempt us to disquietude and repining. It is not necessary, neither is it to be expected, that our lives should be uniformly peaceful and happy. Such a life is possible only as a dream of romance. But each can cultivate, and upon the whole, exhibit before others a resigned and trustful spirit, and live so that

"—— a sick fancy make not him her slave,
To mock him with her phantom miseries."

And happy, thrice happy he who, amid the inevitable sorrows, perplexities, and despondencies of life, can both fortify his mind with the calm wisdom of philosophy and stay his heart upon the assurances of religion. When the storms of temptation arise, and all the dark billows of real sorrow go over the soul, then the serene voice of Faith is heard above the noise of the tempest, saying,

"Hope thou in God! for I shall yet praise him;
Him, my deliverer and my God!"

A MAN would have few spectators if he should offer to show for three pence how he could thrust a red hot poker inro a barrel of gunpowder, and it should not take fire.

How is it possible to expect that mankind will take advice, when they will not so much as take warning?—*Dean Swift.*

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How to Bathe—No. VI.

BY E. P. MILLER, M. D.

THE DRY PACK.

The dry pack differs from the wet, in that the patient is wrapped in dry flannel blankets instead of the wet sheet.

Perspiration is easily induced in the dry pack by drinking hot water and surrounding the body with hot bottles or bricks. This application abstracts less heat from the body than the wet-sheet pack. It should be followed by the towel bath, the rubbing sheet, or the half bath.

THE HALF PACK.

This is given in precisely the same manner as the full pack, except that the wet sheet extends only from the arm-pits to about half way from the hips to the knees, leaving the arms and legs to be wrapped in the blankets only.

This form of pack is best adapted to persons who have poor circulation, with cold feet and hands, and a very small amount of animal heat. It is a milder application, abstracts less heat on being applied, and is pleasanter for very nervous patients, as it does not deprive them of so much freedom of motion. It is also highly beneficial on account of its local effects in cases of inflammation of any organ of the chest or abdomen. Pleurisy, pneumonia, hepatatis, gastritis, and peritonitis, may often be entirely controlled by means of this application. It may be applied either cold, cool, tepid, or hot, to suit the condition of the patient, and should always be followed either by the towel bath, the rubbing sheet, or the half bath.

FOMENTATIONS.

One of the most convenient, powerful, and efficient applications for the relief of pain, for changing the circulation, removing congestion, and for soothing and quieting the nervous system, is the fomentation.

I have often applied them when the effect seemed almost magical; patients suffering from gall-stone, from gravel, or from stone in the bladder, are often relieved, almost immediately, from the most excruciating pain, by means of hot fomentations.

This application will almost always relieve severe pain in those aggravating cases where opium has failed. It will promote sleep where opium will only make the patient more wakeful.

The method of applying a general fomentation is to fold a flannel blanket so that it shall be three or four thicknesses, extending from the arm-pits to the hips, or a little lower; place this across the bed, and let the patient lie upon it in such a way that the ends of the folded blanket can be brought over the abdomen. Take a *woolen* cloth—folded about four thicknesses—large enough to cover the part to be fomented; roll up this folded cloth, and holding one end of the roll in each hand, dip the middle into boiling water; when it is completely saturated raise it up, and by twisting it by the dry ends the water may be wrung from it so that it will not drip. It may now be unrolled and held close over the part till it is sufficiently cool to admit of its being pressed upon it; when this is permitted, bring one end of the folded blanket over, so as to cover it all in, and then the other end in a similar manner.

The hot cloth may remain covered by the blanket from six to twelve minutes, and then the application be renewed, or replaced by a fresh cloth, which is better. Care should be taken to keep the patient covered as much as possible while the hot cloths are being changed. Fomenting cans filled with hot water may be used to save changing the cloths. This process may be continued from twenty minutes to an hour or two, as the case may require.

There are some conditions and constitutions of a nervous character, to which *warm* fomentations are better adapted than *hot*, and the practitioner must of course discriminate in those cases as to which is most applicable.

The fomentation should always be followed by bathing the parts in tepid or cool water, with a sponge or towel, or by a hip bath, half bath, or rubbing sheet. The patient should avoid much exercise or exertion immediately after the bath, and, as in the case of other baths, should not eat for about an hour, or till a thorough reaction has taken place. If these applications produce headache, or such prostration that the patient does not soon rally after the bath, they should not be continued.

In cases of chronic congestion and irritation of the liver, stomach, bowels, and spleen, hot fomentations once a day, or every other day, will be of great service. Many feeble and nervous invalids who are not accustomed to bathing, can be easily and pleasantly prepared for the other water-cure processes by taking the warm or hot fomentations for a time previous to other treatment.

It is one of the most effectual of all home applications—easily applied, and always attainable; and were its effects well understood we feel sure that it would soon take the place now occupied by many poisonous and dangerous substances used as remedies.

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The Physiological Anatomy, Physiology, and Pathology of Man.

BY RUFUS KING BROWNE, M. D.,

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Number V.

In the preceding parts of this series the reader has been informed of what constitutes the growth of the elements of the tissues. At all periods of life, continuing after the very earliest, these elements exist, either in certain stages or in an abiding state, in every part of the compound organism.

The organs themselves, of whatever function, are simply the adjustment and arrangement and the gross outward shape of an enormous number of these elements. So many of these elements, in a certain shape, being, in fact, what

Fig. 1. Fig. 2.

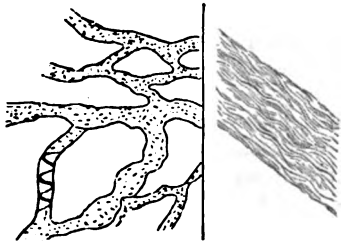


Fig. 1.—Structureless tracks of intercellular substance, partly granular and translucent, showing a single fiber of elastic tissue.

Fig. 2.—Fibrillization into compact bundles of tissue running exactly parallel, as in tendon, etc.

is called an organ, or whatever other special name may be given to them, either in a special or collective form. But everywhere between them and parting them, whether they are very close or far apart, is another form of substance, of varying shape, in every district or territory of tissue. This substance presents various aspects, depending upon the degree and age of the formative processes which have taken place in the "units" of tissue. The units of organization lie everywhere in this as an amorphous matrix. This earliest stage of this substance, as the process of building advances, undergoes remarkable changes. These changes we must understand, because it is this substance which, under its various aspects, holds the formative elements *in situ*. The changes in it are not due to any vital *formative* process in it, as in the "units" or "cells," for it is developed *between* the cells, and undergoes its changes, *pari-passu*, with their growth and transformation. Some of it remains in its earliest grade—namely, semi-fluid, soft and jelly like. As growth proceeds

Fig. 3. Fig. 4.

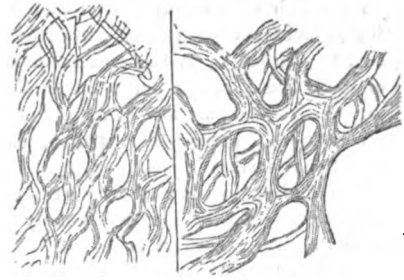


Fig. 3. More highly developed tissue of same substance showing first stage of fibrillisation.

Fig. 4.—Complete fibrillisation of same tissue, with vacuoles (areola).

and this substance condenses, it undergoes a kind of splitting up or fibrillization, and then seems to consist of a great number of *fibers*, each of which had its own genesis. As it solidifies and diminishes in quantity—or, in some situations, even before the fibrillization—parts of it separate in the form of a solid net-work inclosing vacated spaces or vacuoles. It is then the areolar tissue. When fully fibrillated it presents to the eye, under the microscope, the *appearance* of a bundle of very fine fibers, and wherever it is then situated is called *white fibrous tissue*. The various aspects of this at first amorphous substance, as it advances through its various stages, are shown in Figs. 1, 2, 3, and 4. This at first

Fig 5.

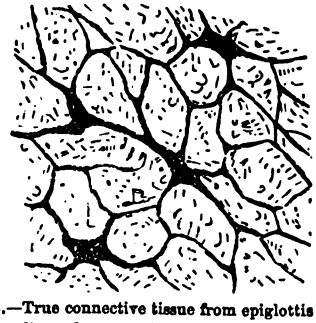


Fig. 5.—True connective tissue from epiglottis of man. Stellate cells and connecting process—extensions of the cell substance.

amorphous intercellular substance becomes, in its latest form, the lowest kind of tissue.

It was once, in combination with two other forms of tissue—the "yellow fibrous," and what is now by itself recognized as "connective" tissue—called, collectively, areolar or "connective tissue."

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The latter two, however, have a different genesis, and only the last is now known as the connective tissue, or "*bindegewebe.*"

This white fibrous tissue is found investing organs forming the dense or tendonous ends of muscles, and in other parts of the organs and structures which require support for their less resisting elements, or where the latter may be subjected to tension, as in the movement and play of limbs and of organs one upon another. The various ligaments are formed mainly of it.

The next kind of tissue which, without playing a functional part in organs, is of great consequence in binding, by its ramifications through their interior, its different elements closely together, is the true "connective tissue." The genesis of this tissue is, by the transformation we have already in general described, of the "units," or cell elements.

According to that description, it originates or commences its formative career as a mass, or a collection of minute germinal masses or "cells," which have increased from a few primitive ones by division. These are nearly or quite in exact contact, the dividing line of any two being apparently one for both.

Between these, however, as the developmental process proceeds, a variable amount of viscid fluid, semi-fluid, or solid (condensed) intercellular substance or matrix arises.

The cells or germinal masses continue to multiply in number by division, the intercellular matter being also increased in quantity and density. The "unitary" or germinal masses may remain irregularly round or oval, increasing to a variable size, and presenting some variations in their own substance. Some become branched and stellate, the processes extending and connecting at every angle with each other, forming net-works, and some extend into long fibers, in which, although they have derived their form and substance from that of the germinal masses, and are indeed only the final elongated form of these masses, yet in their eventual form show no trace of their cellular origin.

These two orders of tissue are, first, the connective tissue, and second, the (yellow) elastic fibers of fibrous tissue, which, we have seen, results from the "splitting" or cracking, without breaking up or parting, of the material between the little masses or cells. The elastic and connective tissue both originate as a collection of cellular masses, and are each the final form of their transformation.

The first of these, namely, the elastic fibers, are considerable larger than the fiber-like division of the white tissue, as they measure about the eighteen thousandth part of an inch. They are exceedingly dense and resisting, and branch in every possible direction, without ending, however, and thus form a net-work.

Generally, the principal branches of a fasciculus of elastic fibers run parallel with each other, as in the yellow elastic ligaments of the spinal column, but the branching fibers generally curl upon themselves. In the process of extension these fibers have lost all the characteristics of the original little masses, which were soft-solid, and have become hard, dense and resisting and capable of stretching, and hence they are found in every part of the body where tension or draft upon it is to be resisted.

The second of these tissues—namely, the true connective tissues—consists of cells or unitary masses still united, and forming a net-work by thread-like or filamentous portions, which are simply the extension in every direction of the substance of the formative masses, which still abide under their own final shape as parts of the net-work. These are represented in Fig. 5.

The generally received description of the formation of this tissue is, that the cells commence the process by assuming an elongated shape, then send out branching processes which join themselves to similar prolongations of adjacent cells.

But in reality no such process takes place in the formation of connective tissue. At first the cells, by the transformations in which it is formed, are not *apart*, but lie in *close* contact. As each of the masses separate and diverge in different lines from their once common center, they are still held in bonds of cohesion by exceedingly fine prolongations or lengthenings out of their very substance. This divergence or separation occurs during growth, and hence they continue to add new substance, atom by atom, to keep up their integrity as germinal masses, even while they are being converted in part into fibers, the fibers being only the thread-like and elongated portion of the cellular masses, and identical with it by perfect continuity of structure. This process is, for the body, similar to the process of wire-drawing from a rounded piece of metal, which, though diminished in size, still retains a continuity of substance with the wire drawn from it.

This connective tissue is found in great quantity in every organ of the body, and in every part of their interiors, in variable quantities. It is a kind of frame-work for many of them. In the soft-solid, amorphous mass of brain substance it constitutes a fine and delicate network, holding the brain substance in its meshes.

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The cellular portions of this tissue still retain, as an abiding quality, their power of change, and they initiate many of the morbid changes which take place in the system, as in the case of tumors, etc.

[TO BE CONTINUED.]

Letters to Ladies.

BY MRS. R. B. GLEASON, M. D.

REST.

LADIES—You have had so much of work from me of late that we will now turn aside for a little rest. When Mahomet's soldiers complained that the weather was hot, the march wearisome, and they wanted rest by the way, the iron man said: "Rest! rest! rest! Shall we not have all eternity to rest in?" Now some of us want to rest before that time, otherwise we shall enter upon the other life before we have finished our work in this; or, worse still, we shall be laid up for repairs before we have done good service.

The Divine Leader in Palestine, unlike the one in Arabia, was mindful of all human needs, and said to his followers: "Come ye yourselves apart into a desert place and rest awhile." If we listen, I think we shall hear him now, as then, speaking to us just as he did to the Disciples, when they returned for fresh instruction after their first tour of preaching and healing. Humanity now, as then, wearies, and wears in any work, however worthy of our best energies, however cheering our success. Even Elisha needed time and place for rest, and the same good Providence which commanded the ravens to feed his predecessor, prompted the "great woman" (or, as the old translators render it, a "rich woman") to prepare a little chamber on the wall, with its bed, table, stool, and candlestick, so that when on his way to Shunem he would turn in thither and rest. The prophet seems to have had a standing welcome to the general hospitalities of the house, for we read that as often as he passed by "he turned in to eat bread;" but beside refreshment he needed a resting place.

How often have I seen those who seemed to need Elisha's chamber on the wall more than a home with "modern improvements," more than medical skill to make them well. A quiet corner like his, a cheerful walk for charitable purposes, a place to "turn in and eat bread," would suffice to cure many a chronic case, *if* with these came the contented spirit.

But in this "fast age," so full of business and bustle, few take time to rest or retrospect. To be sure, there are plenty of people busy and inefficient; but, of course, they are too much in the rear to get refreshing rest, or are not weary enough to enjoy it. Riches or honor, popularity or position, learning or fashion, "hurry up" the masses. Some are in great haste to do a little good on a large scale, or perhaps great good on a small scale. Others seem to be in a hurry because the rest of the world are, and so apoplexy, paralysis, and more obscure diseases of the brain and nervous system, are selecting their victims from among these hurried people. Many within the circle of our acquaintance are receiving slight warnings of the approach of a final failure of health, in the way of numbness of the limbs, disagreeable sensations in the top of the head, throbbing and ringing in the ears, dark spots before the eyes, dimness of vision, sleeplessness, etc. Those who take warning at these monitions, and "turn aside into a desert place and rest awhile," and thereafter, when they return again to the busy world, work more prudently, may last to labor for many a year. But few listen to these warnings, for along with them comes a restless haste, a nervous solicitude, which impels them onward faster than ever before.

The following is an illustration of the type we once met in the "Great West," where people and places grow fast, and do not always know when to stop growing:

An individual began his business life with only twenty-five dollars and became a millionaire. When surrounded with all the elegancies of life and blessed with children and children's children, still the same imperative business haste hurried him on, so that he had no time to enjoy the good things he had gathered about him, or rather he had no relish for any thing but work. So he hurried on till quite exhausted in body and brain, and then he would sit quietly in the corner by the open grate, seldom speaking, and then in a low tone, eating very little, and sleeping much of the time. In this state he would remain for three or four weeks, and then suddenly, as he would say, he "felt the electrical fire return to him again," and then he would be up and off at 3 o'clock in the morning, driving his business as hard as ever—riding fast, talking loud, and sleeping but little, till again worn out, when this state of quietness would return and effect a recuperation, and he would be off to business once more. One day a friend said to him: "Mr. ——, why do you not now rest and enjoy your riches?" "Rest! rest!" said he, "I hate rest, and wish I did not have to take time to eat and sleep." "Why," responded the

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friend, "don't you expect to rest in heaven?" "No," he replied, "if that were a place of rest I should not want to go there! To me the great beauty of that country is, that there we work all the time without eating or sleeping." This imperative business haste was the result of an overwrought brain which ended in insanity and death. There are many morbid symptoms which are often supposed to call for active measures, when it is passive ones the patient needs.

A clergyman, a friend of mine, had been subject to severe attacks of what was then thought to be bilious colic, and had been treated with the usual active remedies for that disease, to the great injury of his sensitive organization. These attacks have since proved to be of a purely neuralgic character, induced by nervous exhaustion, coming on after close mental labor, as when he had written a sermon which called forth much thought or deep emotion. After leaving all close study and giving himself to light labor the attacks ceased entirely.

A lady of my acquaintance, whose position requires much anxious thought and responsible care, was subject to severe and sudden attacks of pain in the stomach and through the section of the back opposite. For hours a groaning agony would rest upon her. The suffering she described as more intense than any thing she ever experienced before. For a time they were supposed to arise from indigestion, and more and more care as to diet was exercised, and less and less food was taken, but still the attacks grew more frequent and more severe. Becoming certain they were not induced by undigested food, other habits of life were watched, and the discovery was soon made that they came on after any close and continued mental activity, especially when from anxious care her usual meals had been omitted, and that the less she ate the more frequent and severe the attacks. Her usual responsibilities were then resigned, a journey taken which restored her appetite, so that she ate freely, slept abundantly, and exercised a great deal in the open air, and had no return of those terrible attacks. On her return to her home labors, she found that whenever her brain work was so increased that her appetite diminished, the symptoms of a return of the dreaded guest would reappear. But these warnings have been promptly heeded, and more bodily exercise, more brain rest and more food, have prevented their return for years.

In this case the nervous force seems to have been so expended that there was a temporary failure in the ganglionic system of nerves distributed to the stomach, and hence this indescribable agony in that region.

Strong emotions—such as joy, grief, fear, solicitude—exhaust the nervous system more rapidly than intellectual activity, and hence rest is needed to repair this waste. But says one: "I feel the need of rest, but I can't find time to take it." Well, my dear woman, that is just the difficulty we have had in mind when we have been asking for more simplicity in diet, dress, and general home life—that you may have leisure to "go up into the mountain," down by the river side, or into the spare chamber of a friend, or some cozy corner at home, and take the rest you so much need. If we order the general tenor of our lives with Christian simplicity and economy, I think we shall also find the spare hours needed to keep us in health and cheer.

Our Saviour says: "Come unto me, all ye that labor and are heavy laden, and I will give you rest." Now don't spiritualize this till you have spirited away all its meaning, all its comfort. Fashion and the Pharisee are not unlike, in that they bind heavy burdens grievous to be borne, such as bring great care and little comfort. Have you, Christian wife and mother, found "your yoke easy and your burden light?" If not, canvass the domain of your duties, see how much you could curtail your crushing cares and still be a Christian. Perchance this pruning would make you a more consistent one. We who believe a good Father orders all our ways in mercy should not be in a state of chronic weariness, or, as the Yankees say, in a constant "stew." To be sure, there will be times when labors and cares will tumble in apace, but if we possess our souls in patience, and work with cheerful energy they will all disappear, and so sure as a calm comes after a storm, so sure shall we find room and time for more rest than usual just after. When over-weary we are ready to sing with one of old:

> "Lord, what a feeble piece
> Is this our mortal frame!"

And still we find it has great elasticity, great power of endurance in emergencies, and if we watch and take the little rests which circumstances offer, at the time or soon after, we shall come out not only unharmed, but with fresh reverence for the wisdom shown in human mechanism.

David said the wicked were like a troubled sea, which would not rest, but we have seen many modern saints who seemed in a similar condition constantly. The burden of their song

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for this life is "I am over-done." For the other,

"There is rest for the weary,
There is rest for you,
On the other side of Jordan."

Now not only the Jesus of the new dispensation, but the Jevovah of the old, recognized our need of rest, and set in order day and night—the one for labor, the other inviting to rest and repose. Beside this the Lord established the rest day, for we read that "on the seventh day he rested and was refreshed." Now we invent all manner of devices to shorten our nights, and if we do not "break the Sabbath," we "crack it," as the little boy said, and curtail it, too. But still, despite all the waves of worldliness which wash against this beneficent institution, it still stands as a worn rock, and casts for us a peaceful shadow, beneath which we may rest once a week. I speak rather of the physical blessings which this one rest day brings, though body and spirit are so allied that if we blight one we mar the other. Whatever our daily duties, the more truly we turn head, heart, and hand aside from them on this one day, the better prepared are we for the labors, the pleasures or the perplexities of the next six. The great Father, like a loving mother, has planned rest for us from the foundation of the world, but we, like restless children, rebel against accepting it. I note often, and with regret, that many excellent women, worn out by over-work and excessive care, feel, when laid up for rest, that they are of little or no use then. Now this is often the time to do their crowning work—to give lessons of patient, trustful endurance, such as they could not illustrate in any other condition. The world needs a good spirit more than good works, even. A clergyman, receiving an expression of sympathy from a friend because of the burdens which came upon him on account of his invalid wife, replied: "I have the best wife in the world for me. She helps me just where I most need help, for I lacked faith in the personal power of the Gospel to sustain one under bodily pain and daily privation. She has so perfectly illustrated this point that I preach it in faith." Of course, we do not expect all husbands to be as appreciative of the gentler influences as the one above mentioned. Here and there we find a sample like the one in Vermont, who, when he had a sick wife for whom his neighbor made kind inquiry, replied: 'Wall, yes, she's some better, but she won't be my profit to me this summer." We remember another, too, who, when hearing the poor pay which women received for their work, said: "Why, I think they get all they airn now; the work my wife duz is not wuth a dollar a week to me." This same wife was the mother of half a dozen children, and some of those were sons. But there is no use in talking about this class of miserly men or miserable women, for they are quite beyond any missionary help from THE HERALD OF HEALTH.

But to return to our point. Every husband has his peculiar needs of a help-meet. Every home has its motherly work for head, heart and hand. But nature here, as everywhere, has her compensation, and if one faculty fails, the others are often more signally useful. Therefore, if we do the best we can to be strong in body, then the good spirit will so make up deficiencies that our life need never be a failure. Many mothers make good housekeepers of their daughters when their own infirmities have laid them aside from their regular duties, and if they then rest in spirit as well as in body, they infuse an element of peace into the home circle. But if unrest and discontent possess them because they can not work as they once did, their great power to do good is destroyed.

But having found the time for rest, when or how shall she get it—at a watering place? In that wilderness of feminine finery, where any one who does not contribute their share to the show feels like an odd stick? Little chance for real rest, and that bought at a very dear rate, in such places. Of course, if it is a change of scene, mineral waters, sea bathing, a peep at the great or gay world that is wanted, we find it there. But if it is rest that we need, it can be got in larger quantities and at cheaper rates in other ways. If you live in the city and want country air for your children, don't take them where the country is filled with city airs, but to some quiet farm-house; turn them out to pasture in plain dress, and let them frolic with the lambs and colts and grow strong. This for a season; but now for the little rests which we need, not once a year, but once a week. Look for these out of doors and in the country much as may be. A tired head and a feeble body get but little rest or renovation shut up in close carriages, jolting about amid all the sights, sounds, and smells of a crowded town. But take a quiet drive in an open carriage, with children along, to divert by the things they see and enjoy, and it lifts one quite out of human details. Better still is a tramp with these little ones, having a lunch so that one meal may be enjoyed; for it matters little how plain the food, it always is eaten with relish and digested with

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ease if taken out of doors. I do not mean a great picnic, for these are always a weariness to the responsible heads of the affair; I suggest them simply for the family.

Get, if possible, the husband to join you, and though he may think it is foolish, ten to one he will be the happiest one of the company, and you will get a fresh glimpse of the heart that won yours, which has been covered so deep with business that you were afraid it was lost. Perhaps you are not strong enough for this; well, then, sit out of doors or lie out on the grass until you are. Out-door life is the best "all-healing," all-restoring remedy I know of, whether for body or spirit, head or heart. Moonlight walks are very delightful to old folks and children, as well as to young lovers. Let your children look for the new moon as a token that the evening for a charming, chatty ramble is near, a thousand-fold more healthful than any amusement you can invent. I wonder we count so much on expensive evening entertainments, when the glory of the Lord shines out every clear night, and yet because it is so common we forget to admire or enjoy. When we are worn with work, and worried by failures, or perplexed by plans, there is nothing which so steadies, soothes, and strengthens as an hour out of doors by night or day.

I once sat on a porch at twilight with a little boy in my lap. His bright, plump face glowed with coaxing admiration as he turned it upward, saying: "Moon and star come down to me." After an expectant delay he seemed to remember that *please* was a powerful word for procuring pleasures in his happy circle. Feeling sure of success this time, each tiny hand was extended, with palms upward, ready to receive the gifts when they descended, as he said: "Moon and star, *please do* come down to me." Finding that even please did not bring down the desired treasures, he gently laid his hands in his lap, and with a soft sigh of resignation said: "Mamma, moon and star too high for me!" but still with radiant face he gazed up admiringly. I then thought terror and trouble would come to us if, in maturer years, we had our own way at all times, just as in mercy moon and stars were held in their course despite childish pleadings. So, when our hopes are deferred, or plans fail, we may by a contemplation of Nature's quiet grandeur grow cool and content, saying: "All this which we asked was too high for us."

Let us trust in Him who holds the stars, clothes the lillies, and cares for sparrows, that He will also provide us with work or with rest, giving the needed prosperity to the one and needed pleasure with the other, if we fold our hands reverently and do not clamor for that which is "too high" for us.

[TO BE CONTINUED.]

Success in Life a Duty.

BY A. L. WOOD, M. D.

SUCCESS in life! What is it? Ask the man who is straining every nerve and taxing his powers to the utmost, with scarcely a thought or a spare hour to devote to any other purpose than the accumulation of wealth—ask him what success in life is, and he will tell you that it is to gather together a large amount of glittering gold, to become rich, and to own and occupy a splendid house, drive fast horses, etc. There are thousands upon thousands who consider this the chief end and object of their existence, and if they succeed they think their mission in life has been fulfilled. Others, again, will tell you that such and such persons, who have risen to a high position in society or in politics, no matter by what means, have achieved a grand success, and they think that if they could, by any kind of wriggling and wire-pulling, reach a certain position and obtain a certain amount of notoriety, that they would be satisfied and strive for nothing further. And so of others; some place success in one thing and some in another.

Success in life is the faithful performance of life's duties. The duties of life are: 1. Self-preservation, self-culture, development, and perfection, to the highest degree attainable, of all our God-given powers and faculties of body, mind and soul. 2. To assist in the great work of the elevation, enlightenment and development of mankind.

Measured by this standard, what many call success is the worst kind of failure. Look at the man whose only thought is gold, and who succeeds in amassing his thousands, and it may be millions, and by defrauding his fellow-men, or by traffic in articles which tend to debase and degrade humanity! Is his life a success? Has he improved and perfected himself as he should have done, and benefited the world by his labor? Ask those whom he has wronged and made miserable.

Look at the manufacturer of and dealer in intoxicating liquors, who has amassed a fortune in the pursuit of his vile business, and whom the world calls a successful man! Has he been successful? He has neglected his own culture and development to accumulate gold by a trade which has caused an untold amount of suffering

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crime, and degradation among those whom he should have sought to elevate and render happy. In the light of truth, justice and humanity, is such a life a success? Is it not the worst of failures?

Look, again, at the men who cultivate that poisonous Indian weed, tobacco—those whose business it is to manufacture it into its various commercial forms, and those who sell it to degrade and destroy their fellow-beings. *Can* men engaged in such occupations achieve success? It is impossible! The better their business succeeds the greater will be their own failure. They utterly neglect the first duty of life—self-culture—and instead of performing the second, and striving to elevate the race, they direct all their efforts to the accomplishment of purposes which tend not only to hinder progress, but to sink their fellow-men still lower in ignorance, crime and misery. And all this for gold! which, if not properly used, is a curse, and nothing but a curse; and how seldom is gold obtained by such means properly used!

"If men cared less for wealth and fame,
And less for battle-fields and glory,
If writ in human hearts a name
Seemed better than in song and story;
If men, instead of nursing pride,
Would learn to hate it and abhor it;
If more relied
On love to guide,
The world would be the better for it."

I do not intend to declaim against gold, or, what should be its equivalent, greenbacks, although it has been said to be "the root of all evil," which is true to a great extent when wrongfully used; but it is *equally* true that it is the root of all good when rightly used. Men generally look upon gold as synonymous with success, and think that the more they accumulate the more successful they will be. The fact is, gold may be made a very useful stepping-stone to success, and that should be its only use. It should be sought after and prized as a valuable aid to the accomplishment of the great duties of life, and not as the chief aim of existence; it should be earnestly and honestly striven for as a *means*, not as an end.

I place self-culture first in the list of life's duties because, unless this duty is properly performed, the others can not be, and the more perfectly a person performs this, the more cultivated and enlightened such person will become, and the more he can do to dispel the mists of ignorance and vice, and help forward the great cause of eternal progress.

The lives of a large portion of the human race prove an utter failure, and most of the remainder achieve only a partial success. Men and women by millions waste their lives in idleness, in frivolity, in misdirected efforts, in injurious avocations, in dissipation, crime, and misery. Other millions yield up their lives at early dawn, or drag out a miserable existence as helpless invalids—a burden to themselves and the world.

Why is all this? It is simply the result of ignorance—ignorance of themselves, of their proper relations to the world and to God; ignorance of the duties which they owe to themselves, to humanity and to Heaven; ignorance of the laws instituted by the all-wise Creator for the government of their bodies, minds and souls; ignorance of their natural powers and capabilities, and of the means of expanding and developing them; ignorance of their relations to life, to labor, and the laws of Nature.

To prevent all this useless waste of life and effort, man must learn, first of all, to know himself; he must learn the structure, the mode of action, and the uses of the various organs of his body and faculties of his mind; he must learn the uses of the relation which he sustains to and the influence upon him of the various forces and agencies of Nature—as air, water, food, light, temperature, clothing, exercise, rest, sleep, electricity, bodily position, mental and passional influences, etc.

It has been truly said that "the greatest study of mankind is man." The whole world else combined does not furnish a theme so grand, so comprehensive, so perfect, so important as this "noblest work of God." And yet this subject, so vital to the welfare of the race, is kept in the background as an affair of minor importance, and children grow up to manhood and womanhood as ignorant of their own bodies, and the laws which control them, as anative of Kamschatka is of Latin and Greek.

This is all wrong. Anatomy, physiology, phrenology and hygiene should be taught in all our schools, and children be made to understand and obey the laws which govern their bodies and brains as well as the moral laws, that one is just as binding as the other, and that if they attempt to infringe upon them they must suffer. Teach children these things, and train them up with strong bodies and strong minds, and they will grow to adult life understanding themselves and their capacities, and far better fitted to battle manfully in the great arena of life, than if they were crammed with all the classic learning of all the colleges.

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The Deaf and Dumb.

Number II.

BY HARVEY P. PEET, LL. D.,

PRINCIPAL OF THE NEW YORK INSTITUTION FOR THE INSTRUCTION OF THE DEAF AND DUMB.

ACCIDENTAL DEAFNESS—ATTEMPTS TO CURE DEAF-DUMBNESS.

The diseases and accidents to which the loss of hearing has been ascribed are many and multifarious. Not infrequently the assigned cause seems quite inadequate to the effect. In such cases we may assume that the supposed cause was a mere coincidence, and that the child was either deaf from birth, or owed the loss of hearing to some malady not particularly noted at the time. Often, also, the parents are unable to give the disease a name, or repeat the name inaccurately. People in poor and even moderate circumstances frequently dispense with medical attendance, and even when a doctor is employed, he may in some cases mistake the name of the disease, and in others give a learned name which the child's friends can not remember. For these reasons, the tables of the causes of accidental deafness must be taken with some allowances. Still, there is no doubt that the greater number of cases are correctly reported, and that the diseases in which there is most danger of the loss of hearing are well ascertained.

It should be observed that in many cases the parents are unable to tell whether the child was born deaf, or became deaf after birth. The new-born child is, so far as we can discover, insensible to sounds, and its ears remain in a quiescent state for several months. Not, says Dr. Wilde, till the fifth or sixth month does its attention seem to be attracted to sounds of any kind. And when it is attracted by noises, it may be sensible only to that concussion or jar of which all the deaf and dumb are sensible through the ordinary nerves of feeling, especially on the wooden floors of our dwellings. Those who can not hear the sharpest sounds are sensible to the fall of a pencil on the floor.* In many cases, also, the deafness is only partial. Noises, shouts, the sounds of musical instruments are perceived, but the perception of sounds is too blunt to enable the child to make the acquisition of speech. Hence it is that there is little or no difference, even to a careful examination, to be discovered between the child born deaf and the child born with all its faculties, in all cases for the first six or eight months, and often for the first year. It is often not till the child reaches the age of two or three years without learning to speak, that its parents suspect the unwelcome fact of deafness, and they are naturally slow to admit it as long as there can be found an excuse for hope. Hence it is evident that there may be many cases in which the hearing was lost by disease, without its being observed at the time; and, on the other hand, many cases in which some sickness or accident during infancy was assigned as the cause of a deafness that may have been, for all that could be known, congenital. Those who wish to test the ability of a child of from six to eighteen months to hear, should remember that its sensibility to loud noises, or to percussions on the floor, or on its cradle, will be a very deceptive test. But if its attention is attracted by an ordinary tone of the human voice, or of a musical instrument, then we may safely judge its hearing to be good.

Out of many detailed statements of the causes of deafness, as collected from the parents of deaf mutes in various countries, we select as the best adapted to this latitude and meridian the one given in the Forty-sixth Report of the New York Institution, p. 33. It embraces only the cases recorded in the eleven years from 1854 to 1864, inclusive:

Scarlet fever,	80
Brain fever, and inflammation of the brain and head,	31
Inflammation of the brain, and teething,	1
Inflammation of the brain and lungs,	1
Dropsy in the head or brain,	3
Teething and consequent inflammation,	3
Falls and blows on the head (of which one caused by hydrocephalus, one brain fever, and one congestion of the liver),	18
Small-pox,	1
Taking cold after small-pox,	1
Disease from vaccination,	1
Measles,	9
Hooping cough,	5
Erysipelas,	3
Typhus and similar fevers,	3
Camp distemper and fever,	1
A locally prevalent fever, not described,	1
Spotted fever,	1
Congestive fever,	1

*All the deaf and dumb are sensible to the near beating of a drum. Drums are used in the New York and other schools to time the movements of the pupils. Some of them say that they feel the vibrations ascend from the floor to the epigastrium. Only a few whose deafness is partial can perceive the sound of a bell.

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Fits and convulsions (one with fever and one with inflammation of the lungs), . 6
Croup, ... 1
Gatherings in the head (one with fits), . 1
Gatherings in the head stopped too suddenly by medicine, ... 1
Sores in head and ears, ... 2
Swellings in head, neck, and throat, . 4
Bite of a dog in the face, ... 1
Cancer sore throat, ... 1
Catarrh, ... 1
Application of nitrate of silver to the ears, 1

In one case the deafness was ascribed to malpractice in chills and fevers. The "drums" (*membranæ tympani*) of both ears were destroyed—by what application or treatment was not stated.

From the same report (p. 32) we take a classified table of the returns from the several American institutions before 1854, compared with those from the New York Institution before and after 1854.

Causes.	*New York, before 1851.*	*Gen'l Table of American Institutions before 1864.*	*New York, 1854 to 1864.*
1. AFFECTIONS ACTING LOCALLY ON THE ORGAN OF HEARING:			
Scarlet Fever, . . .	83	265	80
Measles, ...	22	57	9
Small-pox and varioloid, .		5	3
Ulcers, gatherings, and similar diseases of head, ears, and throat, ...	50	126	17
2. DISEASES AND ACCIDENTS AFFECTING THE BRAIN AND NERVOUS SYSTEM:			
Typhus and other fevers;	18	125	6
Fits, convulsions, etc., .	14	31	6
Dropsy of head or brain, .	8	28	3
Falls, blows, and other accidents, ...	29	70	16
Hooping cough, . . .	8	38	5
Sickness from accident, .	1	1	1
3. CAUSES UNCLASSIFIED:			
Colds, ...	26	50	2
Spotted fever, . . .	1	50	1
Inflammation in head, ears, or brain, ...	33	91	36
Mumps, ...	2	3	
Erysipelas, ...	1	5	3
Scrofula, ...	7	13	2
Croup, ...			1
Various diseases and accidents, unknown or doubtful, .	128	352	26
Total, ...	431	1,310	217

The following causes have also been assigned for the loss of hearing in one or more cases: Foreign substances in the ear; St. Vitus's dance; syphilis from a nurse; mumps; ulcers; report of a cannon; itch; bilious fever; bite of a mad cat; swallowing tobacco; swallowing poison laurel; swallowing seeds of the "jimsen" (stramonium); use of calomel; falling into water; falling into lye; gradual decay of hearing without acute disease; influenza; fright; effects of burns; injuries of the head; paralysis, etc.

The age at which hearing was lost ranges with our pupils from the earliest infancy up to 17 years. The great majority, however, became deaf under the age of 5, as will be seen by the annexed statement taken from the same Report of the New York Institution.

Age of Becoming Deaf:

Under 1 year, ...	83
At 1, and under 2 years, . . .	121
At 2, and under 5 years, . . .	193
At 5 years, and upward, . . .	99

The tables embodying the results of European observations present in the main the same general features with those given above. We forbear, on account of the space they will occupy, to transcribe them. They may be consulted in the works of Wilde, Schmalz, and others, and a general summary is given in the Thirty-fifth New York Report.

The most noticeable difference between the European and American tables, is in the respective proportions of cases ascribed to scarlatina, and to typhus and other forms of fever not eruptive. In the European tables, out of 1630 cases, 283 were ascribed to the non-eruptive fevers, and 128 to scarlatina. In the American tables, adding those recorded in the New York Institution since 1854, out of 1527 cases, 345 were ascribed to scarlet fever, and only 131 to typhus and other non-eruptive fevers.

This prominence of scarlet fever (more properly scarlatina) as a cause of deafness, dates back only about thirty or thirty-five years. In the early reports of our institutions it appears in a few cases only; but those who have looked into medical statistics are aware that, while this disease made but a small figure in the tables of mortality from the beginning of this century to about the year 1830, it appears about that time to have entered on a cycle of unusual virulence. At this time it is one of the most prevalent causes of mortality among children, and as a cause of deafness more to be dreaded than any other disease—perhaps than all others combined.

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The classification of diseases in the last table given is evidently imperfect. It is uncertain whether the once dreaded *spotted fever* of New England, to which about forty cases among the early pupils of the American Asylum were ascribed, is to be classed with the exanthemata, or with the fevers that act on the brain and nervous system.

The diseases in the first class—scarlet fever, measles, and their congeners, also ulcers and similar diseases of the ears—destroy or impair the sense of hearing by lesion of one or more of the parts of the ear. In many cases of scarlet fever, inflammation extends from the throat and fauces through the Eustachian tube into the internal ear. Sometimes the tympanal membrane is destroyed, and the small bones evacuated. Says Dr. Wilde: "Perforation or even total removal of the membrana tympani, and of the malleus and incus, will not of necessity produce total deafness, but the stapes can not be lost, or the fenestra rotunda ulcerated, or otherwise seriously injured, without the cavity of the internal ear being exposed, the perilymph consequently lost, and by extension of inflammation the membranous labyrinth and auditory nerve more or less affected. Neither medicine nor mechanical art can avail in restoring an ear so affected, or in any way improving the hearing of a person so circumstanced; although great improvement may be obtained by the introduction of an artificial membrana tympani, in cases where the natural membrane has been removed, but in which the labyrinth is unaffected. It is scarcely necessary to remark, that unless the patient can hear loud noises in his vicinity, all efforts at treatment will be unavailing."* Artificial membrana tympani made of india rubber have been devised. In the absence of such, a bit of wool moistened with glycerine is recommended.

Certain precautions have been advised by experienced medical men to guard against the tendency to deafness as a result of scarlatina and kindred diseases. It would be out of place to detail them here. The intelligent reader will readily understand that they consist in the means of preventing or reducing the local inflammation. They are briefly sketched in the paper of Dr. Dudley Peet, already referred to in a note to our former articles, and more fully in a paper by the late Dr. Morrell, appended to the Twenty-eighth Report of the New York Institution.

The several diseases classed with scarlatina all affect the organs of hearing by local inflammation, usually ending in suppuration. The second class of diseases—fevers, convulsions, fright, etc.—act on the brain and nervous system. Sometimes a child, after a sudden and violent attack of brain fever, awakes calm and convalescent, and with no discoverable alteration in his ears, but stone deaf. The communication has been cut off between the ear and the sensorium.

With respect to the typhus and other fevers, Dr. Wilde observes: "We require more extensive *post-mortem* examinations than have yet been recorded to determine whether the deafness resulting from this cause is owing to local inflammation, some cerebral lesion, or the general shock given to the nervous system." In the case of which 33 are returned from Ireland alone, in which a child became deaf mute from "fright," the "shock to the nervous system" was evidently the cause.

These remarks might be greatly extended from the authorities before us; but it is not our province to write a professional treatise on diseases of the ear; the professional reader will consult for himself the best authorities. What *we* propose is to give the non-professional reader such a view of the subject as may enable him to judge of the pretensions of charlatans.

CURES OF DEAFNESS.

"Is deaf-dumbness curable? To this serious question," says Dr. Wilde, "I must reply in the negative. Except by miraculous interference, I do not believe the true congenital deaf mute was ever made to hear; and those who lose their hearing so early in life as never to have acquired the faculty of speech, come into the same category."* This is the dictum of a man who had made deafness a special study, and had explored all the resources of medicine and surgery for its alleviation. To the anxious parent it will seem a severe sentence; and he will, no doubt, more gladly turn to the practitioner who holds out hope of relief from an affliction one of the very greatest that can befall a social being. To show that Dr. Wilde has good grounds for his opinion—though in very rare cases cures have been claimed—we will

* Wilde on "Diseases of the Ear," p. 457. Dr. Wilde regards mercury as being "the one great remedy in cases of deafness," from its power of reducing inflammation. He admits, however, that there is a general popular dread of this dangerous drug.

* Wilde on Diseases of the Ear. Appendix on Deaf-dumbness, p. 460. The Doctor having, in a long and very extensive practice, never met with a case in which deaf-dumbness had been cured, evidently supposed that there was some fallacy in the rare cases reported by others.

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give a brief sketch of the most remarkable efforts made, reported by others, to restore the deaf and dumb to hearing, and consequently to speech:

In the year 1786, one Felix Merle, calling himself a Botanical physician, presented himself at the Institution of Bourdeaux, France, and was permitted to try on all the pupils, about twenty-seven in number, a remedy for deafness, consisting of introducing into each ear, morning and evening, a drop of a liquid, which was kept there by a piece of cotton. In two cases, both of children who became deaf after birth, the treatment resulted, in about three or four weeks, in a purulent discharge from the ears, and both are represented to have been restored to hearing, so as to be able to learn to speak. Dr. Itard* purchased the secret of the composition of this liquid, after the death of Merle, and tried it on all the pupils of the Parisian institution who became deaf in infancy. It has also been tried in many other cases; but the two early cases at Bourdeaux are the only ones in which any important success was obtained.†

An early case at Malaga, in Spain, is mentioned where congenital deafness, as it is represented, was relieved by the action of a *moxa*—a cottony substance, burned slowly in contact with the skin to produce cauterization In this case two were applied—one on the back of the neck, another under the chin. The result was inflammation, swelling, and suppuration, after which the patient began to hear the ringing of bells, and was, as is stated, finally restored to hearing and speech. The completeness of this cure does not seem well authenticated; and though the same remedy was afterward tried by Itard and others in many cases, no sound case of success is recorded.

These highly stimulating means having failed, the next hobby of sanguine medical men was the perforation of the membrana tympani. It was assumed that, at least in some cases, deafness was owing to that membrane having become too thick and rigid to communicate the vibrations of sound; while in others the cavity was filled with mucus or concretions. In these cases, and also in some of obstruction of the Eustachian tube, it was supposed the perforation of the tympanum would admit the vibrations of sound to the internal ear. This cruel operation, first performed, we believe, by the celebrated Sir Astley Cooper, has been tried on hundreds of unfortunate deaf mutes in various countries of Europe. In many cases a marked improvement of the power of hearing followed the operation; but this proved in all cases illusive and temporary. The wound closed up, and the membrane became, by the scar, more rigid than ever. Hymly, a German physician, performed this operation four times on one individual, without being able to preserve the opening. We need hardly add that it is only in cases where the internal ear is in a normal condition that this operation can give even a temporary degree of success.

Catheterism of the Eustachian tube next came into fashion. A dexterous operator can reach the guttural opening of this tube through the nose, and, by means of a tube and air-pump, or a syringe, can clear it of obstructions, or renew the air in the tympanum. This operation, also, has been tried on a multitude of deaf mutes; but though considered useful in cases of partial and temporary deafness, we have heard of no deaf mute restored to hearing and speech by this means.

We do not say that there have been no cases recorded of the recovery of hearing in a congenital deaf mute. Most readers have met with the very remarkable case of the young man of Chartres (as related by Buffon and others early in the last century), who was born deaf and dumb, or reputed to have been, and at the age of 24 was surprised by hearing the ringing of bells, soon after which, a kind of water having issued from one of his ears, he heard perfectly well with both. Keeping this newly acquired faculty to himself, till he had by eager listening and private imitation acquired some knowledge of language, he one day astonished his neighbors by suddenly displaying his newly acquired power of speech. We suspect some exaggeration in this account, judging as well from the statement itself, as from the inaccurate way in which facts relating to the deaf and dumb are usually reported, even by scientific men who have not made a special study of the phenomena of deaf-dumbness. Accepting the story as authentic, it will follow that this young man was one of the very few deaf mutes whose deafness was owing solely to some obstruction in the *meatus*—possibly to an excrescence—that was finally carried off by inflammation and suppuration, the internal ear being perfect. Of such instances, we read of but one in the course of centuries—and as the number of cases of the

*This name was misprinted "Hard" in the July No.

†This liquid was composed of pulverized asarabacca, rose leaves, horse radish, parsley pest, white wine, boiled together, and sea salt added. For fuller particulars of these and other cases, the professional reader is referred to an article by the Rev. George E. Day, published in The American Journal of Science and Arts (Silliman's Journal) for July, 1836.

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spontaneous recovery of hearing by deaf mutes is nearly as great as that of cases of such recovery by surgical or medical treatment, there seems to be very small encouragement for experiments on the ears of these unfortunate children, often painful, sometimes dangerous, and successful, if ever, once in ten thousand times.

There are, however, never wanting practitioners, of more or less pretensions to science, who reap a harvest by holding out to anxious parents the hope of restoring their deaf-mute children to hearing and speech. Of this class was Dr. A. Turnbull, an English practitioner, whose professional visit to this country some of our readers may remember, for he was widely puffed at the time, though we never heard of a single deaf mute restored by him to hearing. According to Dr. Meniere of Paris, his general mode of operation was to drop into the ears a stimulating liquid.* He would then clap a couple of books together behind the patient's head, which seldom failed to attract the attention of the latter, probably by the mere puff of air. Upon this he declared the deafness cured, the spectators broke into enthusiastic applause, and the papers announced in glowing terms this real miracle. So implicitly did the Doctor rely on this stage clap-trap, that, according to Dr. Meniere, he never took the trouble to inquire into the circumstances of each case, or even to examine the ears of the subject before him. Whenever subsequent inquiry was made for these deaf mutes thus restored to hearing, it was found that they had immediately relapsed into their former condition of deaf-dumbness.

It is marvelous to what degree men of intelligence on ordinary subjects suffer themselves to be deceived by quacks. Dr. Wilde states that, in some cases in which Dr. Turnbull operated in Scotland, we think, a medical man (!) who was present gave him a certificate that "after repeated examinations of many of the objects under your care, I satisfied myself that they were both deaf and dumb. I have witnessed the application of your remedy to the ears, and bear testimony to their having in my presence obtained the sense of hearing; and by my tuition, *in a few minutes afterwards, acquired the power of speech.*" "I wonder," remarks Dr. Wilde, "was it broad Scotch they spoke!"†

Every intelligent reader will perceive that the man who could gravely put forth an assertion so supremely absurd as that in italics above, was wholly incompetent to testify either to previous deaf-dumbness, or the success of the operation, and all the alleged cures of deaf mutes by Dr. Turnbull were afterward denied and disproved by comptent observers.

There have been other pretenders who have professed to restore the deaf and dumb to hearing and speech by means of mesmerism. We have not space to dwell on those follies. The use of electricity to restore impaired nervous action seems more rational, but we have heard of no cures of deaf-dumbness by its agency.

According to Dr. Wilde, the excision of the tonsils in cases of deafness was a popular remedy at one time. It was assumed that these glands might obstruct the entrance of the Eustachian tube. The remedy seems to have been indiscriminately applied in many cases. Dr. Wilde denies that it is ever beneficial. Another remedy, which, says Dr. Wilde, has "had a run," is the use of glycerine to moisten the cotton put into the ears.

There are certain favorite popular remedies that are pretty sure to be tried on the ears of every child that has lost its hearing, of which the most that can be said, is, that while they serve to soothe parental anxiety, they will probably do no harm. Such is the practice of putting raw pork or bacon into the ears, or sometimes, roasted onions, or cotton or wool dipped into various harmless oils. Eel oil is, as well as bacon, a very favorite popular remedy in Ireland. Another Irish remedy mentioned by Dr. Wilde is a "bit of wool, taken at a certain time, and under particular circumstances from the left fore leg of a six year old black ram." And this remedy is about as rational as many of those employed by men of education.

To show the eager credulity with which reports of the restoration of the deaf and dumb to hearing and speech are received, even by people of fair general intelligence, we cite the following narrative, gravely offered as a fact, and certified by the signature of the editor in The Bienfaiteur, a French journal, devoted to the deaf and dumb and blind, conducted by a zealous and philanthropic priest, the Abbe Daras:

"In the Quarter of the Temple, at Paris, dwells a young woman, who though deaf and dumb, was married some years since to a very respectable and industrious artisan, and a year after the marriage a child blessed the union.

"Some time since, this little girl was playing in its cradle, when it suddenly lost its balance, and fell to the floor.

* Dr. Turnbull called this liquid *alkaloid veratria.*—Wilde, p. 55.

† We scarcely need remind the reader that even if the hearing could be fully restored, the power of speech, unless previously possessed, would have to be slowly and laboriously acquired.

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"The mother, who was in an adjoining chamber, darted toward her child, and uttered a heart-rending cry, articulating the words, *ma fille* (my daughter)!

"The emotion which this accident caused in her, had restored speech to her, though she was deaf and dumb from birth.

"The articulation of words is not, so far as appears, very perfect, and resembles a strident hammering (*un martilage strident*). However, as by the effect of the commotion, the deafness has diminished, it is hoped that this woman may be able before long to hold a familiar conversation.

"Thus, after this strange event, she has been heard to say, very distinctly: *Je veux boire eau sue :* that is to say, *Je veux boire l'eau sucree.*

"The like happened in 1823 to another young girl who was bitten by a bull dog in the Quarter Montorgueil."*

This narrative will remind the reader of the classical legend of the deaf-mute son of King Crœsus, who, so the story runs, was born deaf and dumb, and gained the power of speech in the sudden emotion that thrilled him when he saw one of the soldiers of the victorious Cyrus about to kill his father. Dr. Kitto supposes that here might have been a case of the spontaneous recovery of hearing, and sudden manifestation of a consequently acquired power of speech, like that of the young man of Chartres. We rather incline to think, if the story is authentic, that the boy possessed, like many deaf mutes we know, a remnant of speech acquired in childhood, which was only manifested in moments of great emotion. Careful inquiry into the case of the mother, related above, would, we doubt not, have established that, though reputed deaf and dumb from birth, she had been, in fact, able to speak imperfectly in childhood, and the emotion caused by the danger of her child merely revived a faculty partially lost from long disuse. She seems also to have had some remnant of hearing, and those eager and sanguine friends who found improvement in this faculty merely discovered, and in their friendly enthusiasm probably exaggerated, a partial degree of hearing of which they had not previously been aware.

This recognition of a partial degree of hearing, which had passed unsuspected till particular attention was directed to it, has always been the great source of deception in cases of alleged cures of deaf-dumbness. In many cases, however, there may be a small improvement in the faculty of hearing, by the removal of obstructions and restoring the parts to a healthy state. This improvement, however, is seldom or never sufficient to enable the patient to possess himself of speech, and his friends are painfully disappointed to find that he remains a deaf mute. Where speech had been acquired before the hearing was lost, this improvement may be valuable; for it requires a much feebler degree of hearing to enable a person to recognize words once distinctly impressed on the memory, than that which is necessary for the full acquisition of speech.

We are very far from denying the utility of aural surgery; or the great benefit which is often derived in recent cases, and those where the deafness is only partial, from the advice of an intelligent practitioner. But if the practitioner can not or does not ascertain the proximate cause of the deafness—if he fails to make a careful and intelligent diagnosis of the case, his remedies will be as Dr. Wilde observes, "working in the dark, and prescribing at random." Such was the general treatment of deafness even by educated physicians from the days of Hippocrates down to a recent period. In view of the many and various obstructions and defects in the ears of the deaf, the bringing forward any one remedy as applicable indiscriminately at once stamps it as quackery.

Let the anxious parent obtain, once for all, a *competent* medical opinion, and if it is unfavorable, thenceforward leave the ears of the poor child at peace, and turn his attention to the means of making its eyes supply the loss of the ears. Where there is no rational hope of cure, it is cruel to subject the unfortunate child to useless torture; and a medical practitioner who prescribes at random, as he has more powerful remedies at command, may do more harm than the old women who are content with raw bacon, roasted onions, or the wool of a black ram's left fore leg. Let it be generally understood that while recent cases of deafness may often be relieved, and the ears may be cleared of impacted wax and other obstructions—in the confirmed deaf and dumb, as Dr. Itard, after many years of zealous research and experiment, declared, the *ears are dead*, and he despairingly added, *medical means have no effect on the dead!*

"Is YOUR brother-in-law really such a lazy fellow?" asked one gentleman of another. "Lazy!" was the reply; "why, he's so lazy that he has an artist employed by the month to draw his breath with a crayon."

* Le Bienfaiteur, September, 1854; p. 300.

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Revelations of a Retired Physician.

BY THEODORE THORNTON, M. D.

V.

TRUTH ACCIDENTALLY FOUND.

I PASS over many incidents of the first year of my experience as an office-student, and proceed to give some account of my career in my Alma Mater, the "University of M——."

This opened rather tumultuously. As an *attache* of the school there was the usual authorized Demonstrator of Anatomy. As it had been the custom to do so—whether by the law of the institution or usage merely I had not stopped to inquire—I took his ticket along with those of the Professors, and paid for it the sum demanded.

For some reason or other this College Demonstrator was not popular with the second course students, and they, of course, standing as they did at the portals of the institution, had great influence with such tyros as they happened to encounter in time. This they, for the most part, had thrown against him, and in favor of a graduate of the previous year, who had set up a private demonstrating room just across a narrow alley, to which there was "ingress, egress, and regress," as the lawyers have it, through a gate in the rear wall of the college grounds, and who was popular. The consequence was that the great majority of the students refused to take the "authorized Demonstrator's ticket," and took his instead.

Under these circumstances, there was a beggarly account of empty benches when the College Demonstrator made his appearance, lecture in hand, to deliver his Introductory. Of course, he was aggrieved and chagrined by this. He put in his claim as "the authorized Demonstrator;" the taking of whose ticket was at least the common-law rule of the institution, and, getting more or less backing from the Professors, he peremptorily insisted on what he deemed his rights and perquisites.

Among the adherents of the outside Demonstrator, there was a large proportion of young men from the slaveholding States. Coming as they did from homes where subordination, except for the negro, was not usually taught with success, and where restiveness under restraint was regarded as much more of a virtue than a crime, they were as ready for rebellion against what did not happen to suit them to the extent of having every thing their own way, as some of the same persons and their children have so recently shown themselves to be. With this feeling, they called a meeting for the purpose of uniting in a protest against what they characterized as an "outrage upon their liberties."

Of course, all the students were enlisted on the one side or the other, and I myself attended the meeting. When I arrived it was already organized, and a resolution was under discussion declaring a purpose to resist to the bitter end the demand of the College Demonstrator that they should all take his ticket. The controversy had already assumed a most belligerent aspect—so much so that pistols and knives were brought into threatening view.

Happening to be in a calm humor myself, and struck with a sense of the ludicrous rather than of the terrific, as I entered the meeting-room, I threw myself into the discussion—on the side of law and order, as I regarded that of the personal object of resentment—and was lucky enough to make a "happy hit" which turned the laugh on the pistol and bowie-knife brandishers, while "bringing down the house," as the play-goers would express it. This was done by saying that I was "spoiling for a speech, and that I hoped they would neither shoot nor stab till I got a chance to make it!"

The effrontery of my manner, as well as its sublime coolness, I was assured subsequently, had prevented a bloody fight. But I did not prevent the passage of the resolutions, the adoption of which was a foregone conclusion; and when the vote was finally taken, I found myself in a slim minority. But I got the credit of throwing myself into the contest as the advocate of a cause which I knew was the unpopular one, because I believed it to be right; and as I was good-natured in my strictures on the majority, I gave no serious cause of offense, and hence retained the good will of both sides.

There was another consequence of my speech in the meeting just described which bore upon my future career, as will be seen presently. I was set down as an "orator," and therefore whenever there was any call for "speechifying," I was sure to be pressed into the service of my fellow-students.

An occasion for my services in this line was not long wanting after I had thus made my *début*. Its particular nature will be learned from the following:

"Mr. Thornton," said a fellow-student—one of three who entered my room one evening, "we want you to make a speech. We are a committee appointed to wait on you and request you to do it!"

"I am no speaker, gentlemen," I replied, "and must beg to be excused from doing any

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thing of the sort. I came here to study medicine, and not to play orator!"

"We know better, Mr. Thornton, because we heard you at the meeting with reference to the Demonstrator controversy; and, although you opposed the majority and advocated the cause of the minority, you did it so handsomely and good-naturedly that you made yourself a favorite with both sides—the successful side, with which I myself sympathized, glorying in your pluck. Besides, saving bloodshed as you did on that memorable occasion, we have learned to honor you for it, and hence you have been selected for the work now in hand."

"And what is the work in hand now, gentlemen?"

"Well, I will tell you. Those miserable quacks, the followers of that prince of quacks, Old Thomson, the steaming ignoramus, are going to have a discussion of 'the merits of their system,' as they impudently call it, before one of the lyceums [naming the time and place], and—"

"And you want me, gentlemen," interrupting the committee's spokesman, "to go there and show myself to be not only an ignoramus, but also a pretender to what I am not beside, by making a speech on a subject about which I know nothing!"

"That's very modest, Mr. Thornton; but you heard what Prof. P. said about 'Thomsonianism' in his Introductory, and that ought to be enough to teach any one what a vile system of quackery and imposture it is!"

"That may satisfy you, gentlemen, but it did not satisfy me. I expected Prof. P. would denounce the doctrines of all practitioners outside of the regular profession, and that he could do safely enough, with a set of students before him who were prejudiced, as well as under his influence, and nobody to oppose him—and that without having read, for aught that you or I know to the contrary, the first line of Thomson's writings!"

"Why, Mr. Thornton, it seems to me you are rather disrespectful toward the venerable Professor of Theory and Practice," retorted the committee-man, with the emphasis of indignation.

"Not at all," I replied. "I am not disrespectful, but skeptical."

"Then you're a *skeptic*, are you?" throwing strong and sneering emphasis on that epithet, which is so widely hated, as if skepticism were always really a curse, instead of the blessing it so often has proved itself to the seeker of truth.

"I am skeptical on that point, and I'll tell you why I am so, if you will listen patiently to me for a moment. In the village where I have learned the little that I know, there was one of these Thomsonians—a Dr. G. I could not help noticing several facts about his career."

"Do you dignify such a quack as a 'doctor?' Who gave him a right to be called 'doctor?' He has no diploma!"

"That's the very point I was coming at. I was about to say that, although he had no diploma, a large number of very worthy people in W. not only called him "Doctor" as respectfully as they did my venerable preceptor, but they gave evidence of their belief in him by employing him."

"Certainly, Mr. Thornton, for there will always be fools enough to patronize a brother fool!"

"But, as men do not usually act without thought when their friends are ill enough to need a physician—especially their wives and children—the very fact that so many men of ordinary intelligence employed Dr. G., 'steam doctor' though he was, I confess set me to thinking—and to think at all was to have doubts, and to doubt is to be skeptical, isn't it?"

"Why, you talk like a Thomsonian convert, Mr. Thornton!"

"Certainly not. I know nothing about the system, and therefore prefer to say nothing either against or for it. But one other thing I was about to say when you interrupted me, and it was that Dr. G.'s average success was about equal to that of my preceptor!"

"Was that really so?" chimed in one of the committee who had been, thus far, a silent listener to our dialogue.

"It was," I answered, "and success is a test which the populace *will* apply—and not unnaturally. I am glad, gentlemen," I added, "that the subject is to be discussed; and I shall certainly attend the meeting, and try and learn something about the subject."

"And take part against the Thomsonians, Mr. Thornton?" the chairman of the committee asked.

"I am, after all, disposed, gentlemen, to oblige you," I said, after much further urging; "and if you will procure me a copy of 'Thomson's Guide' (I think that is what he calls his book), I will promise to peruse it, and oppose his doctrine at the approaching meeting, after I shall have come to know what I am to oppose. And I'll pledge myself to take the negative side, for the sake of the argument, and to accommodate you, even if I should unexpectedly become a convert to the old fellow's doctrines," I said, playfully.

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"But there's not time to read the book, for the debate is to come off day after to-morrow evening!"

"No matter for that. Get me the book by to-morrow evening and I'll be ready for you."

The designated book was procured and brought to me after supper next evening.

Faithful to my pledge I read the book, sitting up nearly all night to accomplish the task. I found it full of crudities and not wanting in absurdities. Every page had traces of illiterateness; but, young as I was, many of his opinions struck me as founded in strong common sense, and carrying the force of a natural logic with them.

My attention was particularly arrested by his cardinal doctrine that "cold is death and heat is life."

The attendance was very large at the meeting. The Thomsonian doctors and their adherents were on hand in great numbers. The rumor having gone out that "the medical students were to oppose the steam doctors, under the lead of a talented and satirical young man named Thornton," a large crowd of unbelievers came to see "the row" which they "knew the students would be sure to kick up!"

When I arrived I was fairly carried in over the heads of the crowd about the door by my impatintly-awaiting fellow-students, and applauded to the echo as I took my seat.

The principal debater, on the Thomsonian side, was a German named Godfrey M——r—"Old Godfrey," as he was familiarly called in the city of B., where these occurrences took place. He was fat and fussy—all body and no legs, and like unto a beer-barrel on a pair of skids, as Washington Irving has described the redoubtable Peter Stuyvesant in his inimitable "Knickerbocker History" of New York. With an immense back brain, and large combativeness and corresponding self-esteem, while full of fire, he was as inexhaustible in his invectives against the "calomel doctors;" as untiring and unsparing in his use of them. As his vehicle was a decidedly "broken English," while his manner was boorish and his tone vehement in the extreme, it was impossible to listen to his impassioned harangues without an overpowering sense of the ludicrous.

As "Old Godfrey" was, with all the drawbacks of his oratory, a man of considerable shrewdness and hard common sense, he was accepted as a leader by the Thomsonians, and I concluded to accept him as the foeman most worthy of my metaphorical steel, and I accordingly replied to him.

Of course, he rejoined, and I re-rejoined. The scene soon became boisterous in the extreme, and the meeting finally broke up in a row, amid the screams and swoons of the women and the oaths of the men. This result was claimed as a "victory" by the students.

The Lyceum having adjourned in this "confusion worse confounded," one of the students, against the protest of the President of the institution, moved to organize a "free meeting of all opposed to Thomsonian quackery" by the appointment of an Old School physician (Dr. McM——s of B.) as chairman—a gentleman who subsequently became a convert to one of the new schools (Homœopathy) probably because the discussion set him to thinking, as it did myself.

Loud calls were now heard for "B——y, B——y," a student who had really given the finale to the previous meeting by a speech he had commenced in burlesque of "Old Godfrey." He responded with a take-off so thoroughly successful that a man with less self-esteem than the phlegmatic old German would scarcely have survived it. I considered myself so utterly eclipsed by it, that I never had the courage to make another attempt at playing orator! As a student liable to be drawn into an unprofitable current, the effect on me was most salutary.

But there was another effect of my participation in the debate above described, with the study of Thomsonianism which preparation for it involved, that is well worth mentioning, as not only illustrating the virtue of that free inquiry purposely and all-too-successfully shut out of nearly all our medical schools and medical periodicals, to say nothing of text-books and standard authors.

Had I never been pressed into that debate with the disciples of Samuel Thomson, in all probability I would never have perused his "Guide," even cursorily, and so that cardinal maxim of his, already quoted, would not have exerted the control it did on my practice as an Old School physician. I was taught by my preceptor, the professors in my Alma Mater, and all the text-books, that fever was an *enemy*, instead of a friend, as taught by Thomson, and hence the bleeding and blistering, as well as the purging with mercurials followed by drastic pills and powders, which were considered so indispensable to rout that enemy or compel his surrender. In the light of his blunt presentation of a great truth, I came to see that fever was but the beneficent result of Nature's own efforts to subdue that real enemy, congestion.

[TO BE CONTINUED.]

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THE EDITORIAL DEPARTMENT.



NEW YORK, AUGUST, 1867.

WATER.

"To the days of the aged it addeth length;
To the might of the strong it addeth strength;
It freshens the heart, it brightens the sight;
'Tis like quaffing a goblet of morning light."

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TOPICS OF THE MONTH.

BY M. L. HOLBROOK, M. D.

Shall Women be Doctors?—Much as this question has been discussed, and successful and valuable as have been found the services of women as doctors, it is still being argued against by a large class of persons who, from their position, ought to know better. One of the last efforts against female practitioners is from the Philadelphia County Medical Society, in a discussion upon the "Status of Women Practitioners of Medicine." This society has very grave objections to women becoming doctors. "Their delicate organizations," say these men, "would sink under the task." Whether married or single, their physiological peculiarities are strong objections. If married, they would cease to be a fountain of home influence, the gentle guide, friend, and instructor of their children; the counselor of their husbands. Anxieties about her patients would prevent her from nursing her little ones. Curiosity would lead her into strange and forbidden paths. Professional intercourse would engender misunderstandings, jealousy, bickerings, heart burnings; and these, again, would result in a loss of delicacy, grace, and dignity of character. Believing, or pretending to believe, all this, it is not strange that this society should throw as many hinderances in the way of women studying medicine as possible, and close their discussion by passing the following resolution:

"*Resolved*, That, in conformity with what we believe to be due to the profession, the community in general, and women in particular, the members of this society can not offer any encouragement to women becoming practitioners of medicine; nor, on these grounds, can they consent to meet in consultation such practitioners."

By this course these men cut themselves off from all opportunity to know whether their objections are valid or not. If they will not consult with them, how are they ever to be sure that their patients do not get on well, or whether women practitioners become coarse, unrefined, and lack in gentleness or dignity; or are broken down by hard labor? They determine to shut their eyes, and then insist that their prejudices are right. These objections come from ignorance. Hard as has been the lot of the pioneer women who have devoted themselves to this pursuit, multitudinous as have been the obstacles laid in their way, bitter as are all the prejudices they have been obliged to surmount, the success of women as physicians is beyond all cavil. How much greater will it be when they have an open field and abundant opportunities for acquiring such knowledge as is necessary to this profession. One of the principal reasons why women should study medicine, is to do away with the very condition of things that the Philadelphia doctors are afraid of. Give woman a profession of honor, of trust, of usefulness, and of dignity, and you give her motives for cultivating womanliness, higher graces, a more devoted life. Give her a knowledge of the human frame, and all its relations to life, such as she ought to acquire, and must acquire, before becoming a doctor, and she will, we are sure, have so much higher idea of its value than now, as to scorn those vices which corrupt her physical welfare, make woman an invalid, deteriorate the quality and diminish the number of her offspring, destroying whole families, and threatening to blot out even whole nations of men. "What would be the state of the household, what the present and future prospects of the children, deprived, to a considerable extent, of their natural guardians?" ask these gentlemen. Just the reverse of what you predict. If all mothers were physicians, in the

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highest sense of the word, children would be reared on physiological principles. Their bodies, as well as their brains, would receive proper care. Their health habits would be greatly improved. The inharmony between the body and brain, which now threatens the permanency of the race, would, in a few generations, be restored. Girls would be taught how to dress, eat, drink, sleep, study, exercise, work, and live. They would be told, early in life, what habits are pernicious, dangerous, fatal; boys would be instructed to control their passions, to be pure in body and in mind, to keep their bodies a temple for the spirit of God to dwell in, instead of, as now, allowing passion to run rampant, and intemperance, and kindred vices, to sap the life out of them before they have reached man's dignity and estate. We believe this would be so, because knowledge gives power, and because it is so among the large number of women physicians whom it is our pleasure to know. Not that they love their children more, but they love them with more intelligence and wisdom.

Nor, again, is the argument that women are not physically capable of performing the labor found true in practice; for, among many hundred who have adopted the medical profession, we know of a goodly number who have grown healthier with every year. They become acquainted with the laws of health by the study of physiology and hygiene, and, putting these laws to a practical test, in their own persons, get the benefit of it by improved physical conditions; and, what is true of a portion, may be true of all. This argument would apply with more force to school teaching, for it is rare that a teacher lasts more than ten years before her health fails. It would be as true of housekeeping; for, as people now live, and will live until they are taught by physiologists, the unnecessary tax on a housekeeper is too much for her health, and she often breaks under it. Fashionable women, who have little or nothing to do, also break down through idleness. Even the girls who are sent from the parental roof to the college and boarding school are quite likely to be returned home, after a few years, with weak backs and sides, and debilitated frames. It is not work that kills folks; it is worry, debasing toil, and bad habits of living. The hard workers live the longest, and particularly those who have an honorable, useful, and remunerative employment.

Our advice, therefore, to women is to become physicians wherever they have the taste, the necessary qualifications, the head and the heart. Do not rush into the profession blindly, thinking you will meet no obstacles, but understandingly, and with a determination to honor it, to make it what it should be—a means to the improving of the race, notwithstanding the efforts made by medical schools of both Allopathic and Homœopathic practice to hinder you. We believe woman is destined to supersede man in very many branches of medical practice—branches that are the most lucrative, and also the most important, in their bearing upon the interests of mankind.

The great obstacle in the way is a want of proper medical schools. The old practice of drugs must die out. It can not survive this century, perhaps not this generation. The medical practice of the day, with a few rare exceptions, is not the kind we want to see women adopt; but a new system, founded on physiology and hygiene, preventive as well as curative. If therefore, women are just now, for want of better facilities, obliged to go through a course of study founded on drug medication, in order to become doctors, let them have their minds on a practice which is not founded on poisoning sick people, but on placing them in right relations to nature; the proper use of air, light, food, rest, sleep, recreation, and every hygienic agent that the ingenuity of man can bring to bear upon the prevention and cure of disease. We hardly yet know the power of the human frame to recover a healthy state, without any interference on the part of doctors more than the best hygienic care. (There may be displacements, fractures, dislocations, etc., requiring surgical and mechanical interference, but it is not of these that we speak; they come within the province of surgery.) It is in this field that we hope to see woman labor, and here we bid her a hearty welcome, and will say and do all in our power to help her to achieve a useful destiny.

THE JAPANESE.—Americans, as a general rule, know little or nothing of the people of Japan. It is true that the Japan Expedition some years ago opened the doors of that country to the world, but as yet we have hardly entered further than to buy of, or sell to them, the products of manufacture. We had recently the opportunity to make the acquaintance of a troupe of fifteen of these people who had just arrived here, and who came to the Turkish and Swimming Baths of our house to make themselves clean. From what we saw we were very agreeably surprised. They came to this country to exhibit gymnastic feats and sleight-of-hand performances. Physically, they are short and stout. We do not think one of the

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was more than five feet eight inches in height. Their shoulders and thighs are very strong, and the whole muscular system finely developed. There was little surplus adipose tissue, the skin was fine and of the peculiar color of the people of Southern and Eastern Asia; the hair and eyes invariably black; the nose flat, and in the case of one little girl, five or six years old, this appendage was hardly above the level of the face. They wear their hair long, and tied up in a sort of cue at the back of the head, while from the forehead back two or three inches it is entirely shaved off so as to make the person appear to be bald, only, the glistening appearance usually seen in bald people does not of course follow, but in its place a resemblance somewhat like the face where it is shaven. They appear to be remarkably cleanly in their personal habits. All plunged into the bath at once, perched on its side, chatted, laughed, and disported themselves most merrily. The father of the little girl—the only female present—washed her tenderly, screened her from observation as much as possible, and dressed her as if he were the mother. In dress they were peculiar, nothing like a shirt is worn. The trowsers are cut with straight legs, and buttoned at the sides in place of being sewed. The suspenders are a part of the pants, and, instead of coming over the shoulders, first pass once or twice around the chest. A long mantle is worn which comes near to the ground, over this is a short, light, and loose sack. Most of them carried long swords in their belts; some had a fan, and used it for comfort, not show, and a few carried parasols. Their shoes had wooden soles and a kind of knit cloth top. None wore hats; their heads were all large; what phrenologists call the Perceptives were in most cases wonderfully developed. Generally, the forehead receded; but in one instance, that of a very fine looking young man, who appeared to be the scholar, and who carefully wrote all their names in the Bath Register, the forehead was large, and the whole head finely developed. Their writing is very curious. They begin on the left side of the page and write one letter under another downward.

We were quite interested to learn of their dietetic habits, and were informed that they were all vegetarians. They use fish, however, but not the flesh of animals.

Their object in visiting this country, as remarked above, is to exhibit their gymnastic exercises and feats of skill. We have just had an opportunity to see some of these performances. They have not the bold, dashing, wonderful way of going through their exercises that our gymnasts or the Arabs have. Every thing they do is preceded by a sort of prayer, in form at least. They work very slow, but sure; what an American would, if he could do at all, do in one minute, he spends ten or fifteen in performing. Some of their feats, however, are very clever. We hope to see more of them, and if we learn any thing valuable, our readers shall be apprised of it.

MONSIEUR DU CHAILLU AND THE GORILLA.—Monsieur P. B. Du Chaillu, the famous traveler, has been lecturing to immense audiences in this city on the subject of his explorations in Equatorial Africa. He is an undersized, delicate looking man of middle age. The sun has left its tan upon his face, which is rather serious and thoughtful, and as he wears a white necktie and black coat, he has the appearance of a returned missionary. In glancing at his slender body, which bears the scars of poisoned arrows, and which has been often prostrated by fatigue and fever and exposure among savages in an inhospitable climate, one would not be impressed with the idea of great endurance, and perseverance that scorns obstacles, and physical courage, which faces danger with a soul of fire and nerves of steel.

Yet that small, quiet, modest man, with scarcely strength enough to hold a musket at arm's length, has spent eight years among the untutored natives of Africa, and penetrated regions which no other white man has ventured to visit. Under a tropical sun—in malarious districts—he has waded swamps, climbed mountains, threaded jungles and woods, crossed deserts, sometimes unattended, and sometimes accompanied by savages, and always exposed to the dangers incident to the journey he made. This brave and intelligent explorer ran the risk of sickness, starvation, and death, that he might gratify a laudable ambition and add something to the stock of scientific discovery. We are indebted to him for the discovery of the "man ape," or the "gorilla," as it is more generally called.

Like all lion-hearted men, who have courage to strike out a path for themselves, our traveler met with opposition when he announced the result of his tour in Africa. There were wiseacres who said he was "a humbug," "there were no such animals as apes of such gigantic stature." "He had seen ourang-outangs through the magnifying spectacles of fancy." Some learned men and naturalists disputed his reports, and reviewers took up the question

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until his book was impaled with criticism, so he carried the war into Africa a second time, and now returns in triumph to vindicate his former account of his wonderful discoveries.

What is this curious creature about which he writes and speaks with so much unction and interest. Is it half-human and half-brute? Is it a deteriorated savage waiting for the missionary and the light of civilization to bring it up to a higher standard? Has it a head to think, a heart to feel, a hand to execute, a tongue to explain, and a soul to save—a grand destiny to achieve?

Can science and culture and physical training sculpture it into better shape and bring it to a nearer approximation to an accountable and responsible being. The natives seem to be impressed with the idea that it is a beast animated with a human soul. It runs on all fours like a beast, it stands erect and fights like a man in self-defense. It is gallant, sleeping as a guard at the foot of a tree while its "wife and child," that is the language of the discoverer, sleep in the branches. It is gregarious often, going in companies of six or ten pairs. It is a vegetarian, eating berries, plantains, and the various fruits of the tropics. The Africans use as an argument why they should get drunk on palm and other wines, that the "gorilla drinks water." We may add here that this vegetarian and water-drinker affords a strong argument in favor of vegetable diet. Although it has canine teeth, it never uses them in tearing or masticating flesh, and its great physical strength shows that animal food is not absolutely necessary to great strength and vigor of body. This animal can bend a gun-barrel with its hands as though it were a piece of wire. It can knock down an ox with a blow of its fist. It is more than a match for a score of unarmed men. An adult gorilla has never been captured alive. This powerful creature sometimes attains the height of six feet, and a girth of six feet around the chest. It is an immense hairy monster, whose face and hands are intensely black, and when alarmed it beats its breast with its hands, so that it sounds like a drum, while it barks, growls, and roars as it approaches its assailant. Its eyes are of a grayish color and deeply sunken, and it looks you squarely in the face; its lips are sharply cut; its ears are smaller than those of a man, and its nose is rather flat, although it has the beginning of a nose-bone.

The gorilla differs from man in the following particulars: In the length of its arms, and the shortness of its legs; it moves on all fours, standing erect only when defending itself; man has twelve pair of ribs, the gorilla has thirteen; man has five lumbar vertebræ, the gorilla has three; man has five sacral vertebræ, the gorilla has six; the arms of a man reach to the middle of the thighs, the arms of the gorilla reach nearly to the knee; the shape and size of the head also differs from that of a man."

It is undoubtedly a mere animal, and incapable of intellectual improvement beyond that shown by the monkey in its imitations of the creatures about it. It is a dumb animal, incapable of speech, and the shape of its skull shows that it is not susceptible of mental growth and expansion.

Will some of our scientific men account for the fact, that notwithstanding its canine teeth it never eats animal food? or will they give up the argument, that canine teeth indicate a design on the part of the Creator that man should eat animal food? Will those who oppose vegetarian diet account for the fact that the gorilla has such great muscular power?

GYMNASTICS IN SCHOOLS.—Hundreds of years ago, Plato said, in his Model Republic, no commonwealth was perfect without its gymnasiums. It is equally true that no school, town, or city is perfect without the gymnastic hall, where both sexes can be trained in the use of their bodies. We are slowly coming to it, and many of our best academies are adopting a system of bodily exercise for their pupils which tend to keep them in good health. We are just now more and more impressed with their value, from having recently attended the closing exercises of the Adelphi Academy of Brooklyn, N. Y., where nearly or quite one-half the time was taken up in practicing calisthenic drills, with rings, wands, dumb-bells, and various gymnastic feats. This academy is almost the only one in either of the two great cities of New York and Brooklyn where the same careful attention is bestowed in educating the body as the brain, and the success which it is meeting shows that the people appreciate the value of a school where their children will improve in health instead of deteriorating. Parents write to the Professor of Physical Culture very interesting and flattering testimonials of the value of the training to their children. The following are specimens. They are useful because in the infancy of this movement very many are not aware of the benefits to be derived from systematic instruction in exercise. The names are omitted.

"I see a decided improvement in ————, both in sitting and walking. He tries to follow

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out your instructions, which will be a lasting benefit to him."

"I am glad to be able to say that, though not very full chested, ——— generally sits straight, and has made special effort in that direction for the last few days."

"It is with much pleasure that I have noticed the improvement in walking and sitting of my son ———, which is owing to the advantage derived from the calisthenic exercises."

"I see quite an improvement in ———'s sitting more erect, in carriage at home ——."

"I think that ——— is straight in posture, and every other way."

"I take pleasure in bearing testimony to the good effects of your system of physical training. I have noticed with great satisfaction a marked improvement in my son's appearance since he has been a pupil in your school. His walk is more erect and graceful, and the elevation of his shoulders in sitting and standing has removed a source of great annoyance to me."

We are glad to see that successful efforts have been made to raise a fund to erect a new building for this young institution which shall meet its growing needs. It is not often that we depart from our course to praise or extol private enterprises, however useful, but we do it in this case because the effort is one which meets our hearty approval. We should rejoice to have every school in the country follow a similar course. They will sooner or later be obliged to, or else become obsolete.

CAUSE OF WHITE HAIR EXPLAINED.—Physiologists and chemists have long been at a loss to account for the sudden whitening of the hair which is known to have been produced by profound emotion. A case has occurred which, on careful examination, enables us to understand the anatomical change. It was a case in which every hair of the head was colored alternately white and brown, from end to end.

The white segments were about half the length of the brown, the two together measuring about the one-third of a line. Under the microscope the colors of the hair were reversed, the brown appearing light and transparent, the white opaque and dark; and it was also seen that the opacity of the white portion was due to a vast accumulation of air-globules packed closely together in the fibrous structure of the hair, as well as in its medulla.

There was no absence of coloring matter, but the accumulation of air-globules, vailed and obscured the normal texture and color.

The alteration in structure which gave rise to the altered color of the hair, evidently arose in a very short period, probably less, in this case, than a day, the occurrence of a similar change throughout the entire length of the shaft would explain those remarkable instances of sudden whitening of the hair; the explanation of which is, that during the prevalence of the nervous shock, the normal fluids of the hair are drawn inwards toward the body, in unison with the generally contracted and collapsed state of the surface, and the vacuities thus left presented the appearance of globules filled with air. Such instances of blanching have been actually found to be due to this cause.

AMELIORATING THE CONDITION OF THE POOR.—There is much said about improving the condition of the poor in all large cities. The most important steps that can be taken just now are to supply them with good tenement houses at a reasonable rent, to furnish their apartments with abundance of pure air and water, and to establish means by which the daily laborer shall not have to pay three times the first-cost price for his food and clothing. Air, water, healthful food and neat homes are great civilizers.

CLEAN STREETS.—If as much pains was taken to keep the streets of New York clean—and, in fact, the streets of many other cities, also—as is taken with the walks and drives in Central Park, it would be a saving of at least fifty lives every week. And why should it not be done? Certainly those places where people live nearly all the time ought to be better cared for than where they only go occasionally.

NETTLES FROM DEAN SWIFT.—If a man will observe as he walks the streets, I believe he will find the merriest faces in mourning coaches.

The reason why so few marriages are happy, is because young ladies spend their time in making nets, not in making cages.

We have just enough religion to make us hate, but not enough to make us love one another.

The power of fortune is confessed only by the miserable; for the happy impute all their success to prudence and merit.

Love of flattery, in most men, proceeds from the mean opinion they have of themselves; in women, from the contrary.

If a man makes me keep my distance, the comfort is, he keeps his at the same time.

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Hygienic Home Treatment of Diseases.

BY E. P. MILLER, M. D.

Diabetes.—There are two forms of this disease, diabetes insipidas, and diabetes mellitus. The first form is characterized by an excessive flow of urine, with no particular change in its constituents, and no material constitutional disturbance.

Diabetes mellitus may be known by an excessive flow of urine which contains an abundance of sugar, and is accompanied by great constitutional disturbance, induced by derangements in the process of digestion, or assimilation.

Although diabetes is commonly regarded as a disease of the kidneys, yet it does not in reality pertain to these organs, for there are no organic changes in their structure. They are often enlarged, simply in consequence of the increased labor performed, but are not otherwise changed in appearance; and, though sugar is found in large quantities in the urine in this difficulty, its presence is not confined to this excretion alone, for it is also obtained from the feces, the saliva, the sweat, and from the serum in blisters.

If diabetes is to be considered as a local disease, it would be more proper to call it a disease of the liver, instead of the kidneys. It has been clearly demonstrated that sugar is formed in the liver of all healthy persons, and that it is exhaled, or disposed of, in the lungs; but in diabetes it does not disappear in this way, for it is found in all the solids and fluids of the body—it is often temporarily present in the urine in other diseases beside diabetes.

Some authors suppose that Bright's disease and diabetes both originate in derangement of the sugar-forming function of the liver; the function being arrested in the former disease, while in the latter it is increased. Diabetes is common to all ages and both sexes; it is less common, but more fatal, in children than in adults, and there are twice as many cases among men as women.

Although this difficulty, by proper treatment, is held in abeyance, and life sometimes prolonged for many years, yet it is almost universally regarded as eventually fatal. It is always considered as a rapidly fatal disease, unless there is a radical change in the habits of the patient; it usually lingers from one to two years, though many cases prove fatal in as many months, while others sometimes continue eight or ten years.

Causes.—It has not yet been definitely ascertained that this difficulty is produced by any special cause, aside from those which derange the liver and digestion, and deteriorate the blood. It is well known that the pneumogastric nerve has an important influence over the digestion, and it is found that any irritation of this nerve will cause diabetes. A blow upon the skull will often produce it. Dr. H. states that local irritation of the liver, or alcohol injected into the portal vein, will cause it. Dr. Aitken says, "The internal use of arsenic, quinine, and other irritant substances, absorbed by the bowels and carried by the mesenteric and portal veins to the liver, will bring about this morbid state."

Alcoholic stimulants, tobacco, medicines, indigestible food, excess of sugar and starch, habits of uncleanliness, and sexual excesses, are the producing causes.

Symptoms.—The first symptom that excites attention in this disease is the increase in the quantity of urine; this is usually preceded or accompanied by a general sense of discomfort, constant thirst, and more or less emaciation. The urine is commonly pale and clear, almost colorless, with a sweetish taste and odor; in some cases the quantity is but little greater than is passed in health, while in others it amounts to from six to thirty-six pints in the twenty-four hours. The sleep is of course very much disturbed, and sometimes there is inflammation of the urethra, or passage leading from the bladder, and considerable pain and suffering during urination.

The specific gravity of healthy urine is about 1020, but in diabetes it varies from 1030 to 1074. This increase is due to the sugar it contains, from one to two and a half pounds being frequently passed in twenty-four hours; the patient loses flesh and strength, and the health gradually fails; the thirst is generally intense, and the patient drinks several quarts,

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and even gallons, of water during the day. The appetite is usually voracious, yet it is sometimes variable; the skin is harsh and dry; mouth, parched and clammy; tongue, glazed and cracked; the gums bleed easily, and are soft and spongy, and the teeth decay. The bowels are constipated; feces, hard and dry; more or less pain in the loins, coldness of the limbs, with burning of the hands and feet.

Nausea, vomiting, and sinking at the pit of the stomach are frequent. The constipation sometimes alternates with diarrhea; there is a peculiar odor to the breath; after a time, a dry, irritating cough sets in, which is usually a precursor of consumption; this, with inflammation of the lungs, pleura, and peritoneum, being frequent complications of diabetes.

There is tendency to suppuration in every tissue of the body; boils, carbuncles, and skin diseases are liable to occur; also gangrene of the lower extremities from the obstruction of some artery; defective vision, sometimes resulting in total blindness, the whole difficulty often being developed in a few days' time. There is usually great irritability of temper, mental weakness, and hypochondria; the sexual feelings become extinct. There is swelling of the lower limbs, and the patient gradually becomes emaciated till life goes out, or it may be that consumption or some inflammatory disease relieves the poor sufferer from his ills.

TREATMENT.—There are few diseases in which so great a variety of remedies have been tried, and with so little satisfaction, as in this. Dr. Aitken in his recent work says: "The whole materia medica has been exhausted to find a remedy for this disease," and "nearly every patient dies whose treatment is left entirely to drugs." Dr. Flint observes: "Experience has thus far failed to establish the efficacy of any known remedial agent," and that "certain means have been employed which are not only devoid of usefulness, but hurtful." He further says that "diet and regimen constitute the most important part of the treatment." Dr. J. Hughes Bennett says: "Diet, opiates, and the warm bath constitute the best treatment."

The majority of experienced physicians agree as to the inefficacy of medicines, and decide that "amelioration" and "favorable results may be hoped for by observance of a certain diet and regimen."

Both experience and science have demonstrated that the Hygienic treatment alone offers a chance for recovery. Food containing sugar or starch is found to be deleterious in this disease; for the latter is converted into sugar in the process of digestion.

Diabetes being dependent upon derangements of the digestive organs, the treatment should be directed to overcoming these derangements, and thus improving the quality of the blood more than to any thing else.

As most grains and vegetables contain starch, the practice at one time prevailed of keeping patients upon animal food exclusively; but the results were not such as to warrant its general adoption; several cures have been made by an exclusive diet of bran bread; but the best diet is bread made of a mixture of the bran and middle quality of wheat, with the fine, starchy portion taken out. This should be baked thoroughly, without yeast or soda, and may be eaten with cabbage, cauliflower, spinach, apples, pears, berries, and all kinds of fruit, either fresh or canned, that can be used without sugar.

The food must be thoroughly masticated, and insalivated; to insure perfect digestion it is better to eat only a moderate quantity, and but twice a day, at regular hours. The bowels must be kept open by enemas; drink only soft water; on no account should alcoholic stimulants, coffee, or tea, be used. If the patient becomes emaciated rapidly, and loathes the food above recommended, a little fresh beef or mutton may be eaten once a day.

BATHS.—Keep the skin clean, and a vigorous circulation to the surface; a cool or cold towel bath with much rubbing in the morning; a full warm bath once or twice a week; the rubbing sheet, or pack, or Turkish Bath once or twice a week. These, with the wet girdle at night, will be the most effectual treatment that can be given.

Drs. Aitken, Tanner, Bennett, and others, recommend the Turkish Bath for diabetes; it has operated favorably in every case in which we have applied it.

In diabetes insipidas one single pack, or Turkish Bath, will sometimes establish such vigorous action in the skin as to effect a cure. Fresh air, exercise just short of fatigue, gymnastics, and Swedish movements are all beneficial.

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Answers to Correspondents' Notes and Queries.

BY A. L. WOOD, M. D.

Prevention of Cholera, and other Infectious Diseases, by Disinfection.—"Can cholera, and other infectious diseases be prevented by the use of disinfectants? If so, please give directions what ones to use, how to use them, and when to to use them."

That infectious diseases can be prevented by cleanliness and disinfection, has been proved beyond the shadow of a doubt. This is a most important subject, and I can not better give the information desired, than by presenting the following very admirable "Memorandum on Disinfection," prepared by Dr. Harris, the Registrar of Vital Statistics of New York city, for the use of the Metropolitan Board of Health. This paper should not only be read by all, but carefully studied, and its suggestions acted upon.

"MEMORANDUM ON DISINFECTION.

"*Fresh air and pure water, constant ventilation and cleansing, are natural means of preventing and destroying the causes of infection and disease.*

"Experience has proved that it is possible, by the use of certain chemical agencies, wholly to destroy, or prevent the operation of, the specific infection or contagion of any disease; but to do this, it is necessary that precise rules should be observed in applying the disinfectants; and, as regards cholera and typhoid fever, it is especially important that the infective discharges from the sick should be disinfected as soon as voided from the body, and that whatever clothing, or surfaces, may have been soiled by such discharges, should be disinfected as soon as practicable. The fact should also be borne in mind by all persons who have charge of infected things, that the infective property, or virus, of some diseases, and of cholera, especially, is capable of rapid increase in filthy places, and in a foul, damp atmosphere. Therefore the cleansing and disinfection of such places should, if possible, precede the arrival or outbreak of any such pestilential infection. Every unclean and damp place about dwelling houses, ware houses, factories, places of assemblage, passenger vessels, railway depots, and hotels, should be made, and kept, perfectly clean and dry. All drains, privies, and water closets, should be kept as clean as possible, and should be thoroughly purified before cholera comes into the neighborhood. Such cleansing and disinfection give the surest protection against all epidemics.

"DISINFECTANTS, AND HOW TO USE THEM.

"1. *Quicklime*—to absorb moisture and putrid fluids. Use fresh stone lime, finely broken; sprinkle it on the place to be dried, and in damp rooms place a number of plates or pans, filled with the lime powder. Whitewash with pure lime, not with calcimine.

"2. *Charcoal Powder*—to absorb putrid gases. The coal must be dry and fresh, and should be combined with lime. This compound is the "calx powder," as sold in the shops.

"3. *Chloride of Lime*—to give off *chlorine*, to absorb putrid effluvia, and to stop putrefaction. Use it as lime is used, and, if in cellars, or close rooms, the chlorine gas is wanted, pour strong vinegar, or diluted sulphuric acid, upon your plates of chloride of lime occasionally, and add more of the chloride.

"4. *Sulphate of Iron (Copperas) and Carbolic Acid*—to disinfect the discharges from cholera patients and to purify privies and drains. Dissolve 8 or 10 pounds of the copperas in a common pailful of water, and pour this strong solution into the privy, water closet, or drain, every hour, if cholera discharges have been thrown in those places. For ordinary use, to keep privies and water closets from becoming offensive, pour a pint of this solution into every water closet pan, or privy seat, every night and morning. If there is cholera in the house, or district, let carbolic acid be added to this iron solution—half a pint of the fluid acid to five gallons of the solution. Bed pans and chamber vessels are best disinfected with this mixed solution, a gill at a time.

"5. *Permanganate of Potassa*—to be used in disinfecting clothing and towels from the cholera and fever patients, during the night, or when such articles can not be instantly boiled. Throw the soiled articles immediately into a tub of water in which there has been dissolved an ounce of the permanganate salt to every three gallons of water. Boil the clothing as soon as it is removed from this colored solution.

"6. *Carbolic Acid*—fluid—may be diluted at the rate of from 40 to 100 parts of water to one of the fluid acid. Use this solution for the same purposes as copperas is used; also, to sprinkle upon any kind of garbage or decaying matter, or on foul surfaces, or in drains. When used to disinfect clothing, carbolic acid, of good quality, should be thoroughly mixed with its own quantity of strong vinegar, and next be dissolved in

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200 times its own quantity of water, before the clothing is immersed in it. This mixture with vinegar insures such complete solution of the carbolic acid that the clothing will not be burned by undissolved drops of carbolic acid when disinfected in the carbolic water. This weak solution—1 part to 200—will not injure common clothing. But *to destroy clothing as well as infection, instantly*, use the acid diluted only 10 to 30 times its own quantity of water. The disinfecting and antiseptic power of good carbolic acid is so great that one part of it to 50 or 100 parts of water is sufficient for ordinary purposes.

"For drains, sewers, foul heaps, stables, and privies, the cheap "dead oil" of coal tar, or the crude carbolic acid, answers every purpose, when freely applied. Coal tar itself is available as a disinfectant to paint upon the walls of stables, privy vaults, and drains. By mixing with saw dust or dry lime, coal tar or crude carbolic acid may be used on foul grounds or heaps of refuse.

"7. *Boiling, or High Steam Heat.* Whenever foul clothing and infected things can be boiled, or have a boiling heat steadily applied and kept up for an hour, this is one of the simplest and best modes of disinfection. But until such high heat is actually applied to the infected things, some one of the disinfecting solutions must be used. A common steam tub (in a laundry or elsewhere) with a tight cover, is a good disinfecting vat.

"PLACES THAT MUST BE DISINFECTED, AND WHAT DISINFECTANTS TO USE.

"For water closets, privies, bed pans, etc., use the substances 4, or 6, as described above.

"For cellars, vaults, stables, or any damp or offensive places, use 1, 2, 3, 4, or 6, in any manner suited to the objects to be obtained, as described in these directions.

"The permanganate salts must not be used with the carbolic or coal tar disinfectants. It is also best that chlorine and the chlorides should not be used at the same time with them.

"For sick rooms, bed rooms, and closets, ventilate and keep clean, and use 1, 2, or 3, according to directions.

"To disinfect a privy, or a quantity of earth that is contaminated by cholera excrement, or liable to be infected, use the mixed carbolic and copperas solution, saturated strength as follows:

"To every cubit foot of soil or filth give from one to three pints of the strong solution.

"To every privy and water closet, allow at the rate of one pint, to be poured in daily at evening, for every four persons on the premises; this practice to be kept up while the cholera is in the country.

The best sanitary chemists advise that the estimated quantity of these privy and sewer disinfectants required for each person daily, in the presence of cholera, should be half an ounce of sulphate of iron, and half a drachm or half a tea-spoonful of carbolic acid.

"THINGS TO BE DISINFECTED.

"[*a.*] Beds, bedding, and upholstered stuffs. Expose to sunlight, and ventilate freely and frequently. If actually infected, thoroughly moisten every part with best solution of 6 or 5.

"[*b.*] Soiled clothing, etc., from the sick, with cholera, or any contagious disease, use solution No. 5 or 6, precisely as directed, and as soon as the soiled articles are removed from the patient, or immerse them at once in boiling water. In any case of infectious disease, the clothing must be boiled previous to washing or drying. Infected clothing must be thrown into the water at boiling heat, and that temperature should be kept up for an hour.

"[*c.*] Carpets, sofas, lounges, mattresses, floors, etc., infected by cholera excrement, or by small-pox, or other contagions. Thoroughly moisten every infected thing with one of the carbolic or permanganate solutions—No. 5 or 6. To give still greater completeness to the disinfection required for an infected apartment, and thick woolen stuffs, carpets, etc., to which boiling heat can not be applied, fumigate with sulphurous acid, thus: First, arrange to vacate the room for 12 hours; close every window and aperture, and upon an iron pipkin or kettle with legs burn a few ounces of sulphur. Instantly after kindling it, every person must withdraw from the place, and the room must remain closed for the succeeding eight hours. If any other kind of fumigation is resorted to, as that by chlorine, bromine, or nitrous acid, a sanitary officer or a chemist should superintend the process. Fumigation should be resorted to in dwelling-houses only by official orders or permission, as the disinfecting gases are very poisonous.

"FINALLY,

"*Let fresh air and sunlight purify every place they can reach.* Open and dry all cellars and vaults, and keep the grounds and surfaces about dwellings as dry and clean as possible. Use fresh lime, or the "calx powder," freely upon wet or offensive surfaces. Flush the water closets and drains daily before throwing in the disinfectants as directed. *Let domestic and personal cleanliness be everywhere observed. There are no substitutes for fresh air and water.*"

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Domestic Recipes.

PREPARED BY THE AUTHOR OF THE HYGIENIC COOK BOOK.

Corn Bread.—One quart of corn-meal, one tea-cupful of flour; add two tea-spoonfuls of "yeast-powder;" pass the whole twice through a sieve and incorporate thoroughly; then wet it with cold milk to a rather stiff batter; into two eggs, well beaten, stir four table-spoonfuls of cream, and two spoonfuls of sugar; stir all together; then pour them into the batter, adding milk enough to make it rather thin; bake immediately in a brisk oven till thoroughly done and of a light brown color; it should be about an inch deep in the pan.

Indian Bannock.—One pint of corn-meal, one quart of sweet milk; boil half of the milk and scald the meal; mix with it, while hot, half a cup of cream; add three well-beaten eggs and the remainder of the milk; bake in shallow pans in a quick oven. Delicious and wholesome.

Lemon Pie.—Grate the yellow part of the peal of one large lemon, and add it, with the juice, to two-thirds of a cup of sugar; mix smoothly one and one-half table-spoonfuls of flour in three-quarters of a tea-cupful of water; stir all together, and add the well-beaten yolks of two eggs; bake, with only an under-crust, to a nice golden brown color; when done, pour over the tops the whites of two eggs beaten to a stiff froth, with two table-spoonfuls of powdered white sugar; set in the oven for a few minutes to harden.

Apple Tart.—Pare some good cooking-apples—winter russets are the best; slice them thin and cook them, till quite soft, in as little water as possible; when done, mash till smooth; add a tea-cupful of sweet cream; flavor with lemon, if desired, and sugar to taste; mix well together; put a nice pie-paste around the dish, fill with the apples, and place a few ornamental bars across; bake half an hour in a brisk oven.

Baked Custard.—Upon three eggs, well beaten, pour one pint of milk scalding hot, stirring all the time; sweeten to taste; flavor with lemon or rose-water; bake twenty minutes in an oven at a moderate heat; it will bake better when the dish containing it is placed in another partly filled with hot water. A custard made in this way is vastly superior to one made of cold milk, as it does not "whey."

Browned Parsnips.—Cold, boiled parsnips, cut in slices an inch thick and browned in a hot oven, make a nice breakfast dish.

Apple Jelly.—Ten quarts of sliced sour apples stewed very soft in four quarts of water; drain over night, without pressing, through a flannel bag; then add a quart of sugar and three sliced lemons to one quart of juice; boil twenty minutes, and strain, while hot, through a fine sieve or flannel bag.

A Pippin Pudding.—Boil six apples well; take out the cores, put in half a pint of milk thickened with three eggs, a little lemon-peel, and sugar to taste; put pie-paste around the dish; bake in a slow oven, grate sugar over it, and serve hot.

Pea Soup.—Boil a pint of split peas four or five hours in two quarts of water; add two carrots, two turnips, a large onion, a stick of celery and some potatoes, all chopped fine; cook till tender, and thicken with a little cream and flour rubbed together.

THE COLORED MAN'S PRAYER.—A black minister was closing up his prayer, when some white boys in the corner had the ill manners to laugh so that the sable supplicant heard them. He had said but a moment before, and very earnestly, "Bress all dat is human," when the laugh occurred; and commencing again, just before the "Amen," the pious old negro said, "O Lord, we are not in the habit of addin' postscripts to our prayer; but if de 'spression, 'Bress all dat is human,' won't take in dese wicked white fellers, den we pray dat de Lord will bress some dat ain't human also besides. Amen."

MADE TRACKS.—A clergyman was once sent for in the middle of the night by one of the ladies of his congregation. "Well, my good woman," said he, "so you are very ill, and require the consolation of religion? What can I do for you?" "No," replied the old lady, "I am only nervous and can't sleep." "How can I help that?" asked the parson. "Oh, sir, you always put me to sleep so nicely when I go to church, that I thought that if you would only preach a little for me!' The parson "made tracks."

EXTINGUISHED.—An old fellow of the ultra inquisitive order asked a little girl on board the train, who was sitting by her mother, as to her name, destination, etc. After learning that she was going to Philadelphia, he asked, "What motive is taking you thither, my dear?" "I believe they call it the locomotive, sir," was the innocent reply. The "intrusive stranger" was extinguished.

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Healthy Spices and Condiments.

WORRY wears one more than work.

A TASTELESS FRUIT.—The apple of the eye.

WHY can you keep fruit better by canning it than any other way? Because you can.

THE BEST "LADIES COMPANION."—Her husband.

BEER fills many a bottle, and the bottle many a bier.

IF a horse says neigh when you offer him oats, he don't mean it.

ADVERTISEMENT.—Wanted: A man to take charge of a pair of horses of a religious turn of mind.

RED noses are light-houses to warn voyagers on the sea of life off the coast of Malaga, Jamaica, Santa Cruz, and Holland.

A CONSCRIPT, being told that it was sweet to die for his country, excused himself on the ground that he did not like sweet things.

A DISTURBED preacher remarked, "If that cross-eyed lady in the side aisle, with red hair and a blue bonnet, don't stop talking, I must point her out to the congregation."

A PRIEST asked a tipsy fellow leaning against the fence where he expected to go when he died. "If I can not get along any better than now," said he, "I can't go nowhere."

A GENTLEMAN who had built a small house in a sequestered part of his grounds for his private study, showed it to a friend, remarking, "Here I sit reading from morning till night, and nobody a bit the wiser."

A NEWBURYPORT school teacher about to marry a widower with a number of children, sent in her resignation to the committee, because she "had engaged for an indefinite period of time, as an assistant in a private family."

THE Lewiston (Me.) Journal says a sturdy little fellow four years old was traveling up street the other day in a very independent and don't-care-a-tive manner, when he was met and accosted by a young lady who knew him. The little urchin deigned no reply, which caused the young lady to remark, "Why, Charley, don't you know me?" Young America very dignifiedly responded, "I don't know any body—I'm a policeman."

Literary Notices.

A WOMAN'S SECRET.—By Mrs. Caroline Fairfield Corbin. Chicago: Central Publishing House.

This is a work of fiction, specially written to illustrate the relative position of the sexes, to point out the abuses which result from ignorance of their right relations to each other, to show the true status and work of woman, and the office and nature of love. It is an interesting book, and one which is calculated to, and will do, a great deal of good. Such is the ignorance which exists upon these subjects among the people generally, that we gladly hail any agency which shall serve to enlighten them, and this the above work can not fail to do.

The writer has prophetically expressed the desire of her heart in the following lines:

"Ere long a fairer morn shall rise,
With purer air, and brighter skies;
When Force shall lay his scepter down,
And Strength shall abdicate his crown,
And Love incarnate sway the race
With wisest power and tenderest grace."

ARGUMENT ON THE RIGHT AND DUTY OF PROHIBITION.—By A. A. Miner. Boston: Wright & Potter, State Printers. This pamphlet of 122 pages is the argument before a Joint Special Committee of the Massachusetts Legislature against a return to the license system, and in favor of prohibition. We have read it through, and believe it to be a document that can not have too wide a circulation. It is an honor to its author, and will prove a blessing to the country and the race. Price, 50 cents.

THE LIFE AND ADVENTURES OF MARTIN CHUZZLEWIT.—By Charles Dickens. Diamond Edition. Boston: Ticknor & Fields. This very amusing book is published uniform with the preceding volumes recently issued by this house. They are meeting with an unprecedented sale, and their cheapness brings them within the reach of all. Also, by the same author, and from the same publishers, the work entitled "Dombey & Son."

SECOND ANNUAL REPORT OF THE NATIONAL TEMPERANCE SOCIETY.—This publication gives the results of the labors of the National Temperance Society during the past year, together with the proceedings of the Anniversary Meeting held in New York. The speeches on this occasion of W. E. Dodge, Mr. Cuyler, Wendell Phillips, and others, are given in full. As a landmark in the Temperance Reform it possesses peculiar interest.

FORTY-EIGHTH ANNUAL REPORT OF THE NEW YORK INSTITUTION FOR THE DEAF AND DUMB.—To those who are at all interested in the instruction of the deaf and dumb, and what has and can be done for them, this report will prove interesting. Its author, Harvey P. Peet, LL. D. is Principal of the Institution, and he is now engaged in writing a series of valuable papers for this Journal. The first one appeared in the July number.

HAND-BOOK OF NORTHERN TRAVEL.—New York: D. Appleton & Co. To the traveler in America this book is of great value. It gives important information concerning each State and Territory, the interesting places to be seen, descriptions of landscapes, pleasure and health resorts, charts, maps, etc. This is the ninth yearly edition.

LONGFELLOW'S POEMS.—Complete in one volume. If you want a gem of a book, much in little—in short, all the poems written by Longfellow up to the present date, purchase the recently issued Diamond Edition. It is published by Ticknor & Fields, Boston. Price, $1 50.

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Publishers' Department.

Contributors to this Number.

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A. L. WOOD, M. D.
M. L. HOLBROOK, M. D.

This Number.—Some of our friends write us saying that they do not often see a magazine the articles of which are so uniformly good as those contained in THE HERALD OF HEALTH. We are quite sure there is no monthly published that has had contributions from more eminent men in every walk of life than this during the past year. We aim to make it practical, to impart knowledge on subjects which are not discussed in other publications. This number, we think, will be found full to the brim with the very best matter. We hope our friends will prepare to canvass early, and to send in large Clubs, so as to double and quadruple our circulation next year.

Sewing Machines.—We are constantly getting Clubs of 30 and 40 names, and sending to the persons who get them up a Sewing Machine. One lady got a machine worth $72 for the clergyman's wife, by sending 40 names and $80. One young girl in New York got 60 subscribers, and we gave her two machines valued at $55 each, one of which she gave to a soldier's wife in Ohio, as a free gift. One soldier, who was scarred and maimed in defending the Union, got up in a few days a large Club, thereby obtaining a sewing machine for his wife, which will lighten her labors and increase her income. We have sent machines to Maine and Oregon, and to a large number of our friends elsewhere. The offer is still open to any who choose to make the exertion sufficient to get 30 subscribers.

Lincoln at Home.—It will be seen by reference to our List of Premiums for 1867, that for a Club of 10 new Subscribers and $20, each of these Subscribers will be entitled to a picture of "Lincoln at Home." This picture is a large steel engraving, which sells for $1, and in many places even as high as $2. There are very many engravings of Lincoln, some of which sell as high as $20 a copy, but in our opinion none of them have the same elements of popularity and are so characteristic of the man as this one. It was engraved from a photograph, and represents Lincoln and his little son looking over the pages of the Bible together, gathering strength and wisdom from the words therein. We are sure it will please every one of our subscribers to possess one, and we are happy to be able to make so liberal an offer with this end in view. It will be sent by mail prepaid.

Agents Wanted—We want agents, local and traveling, to canvass for THE HERALD OF HEALTH, Sexual Physiology, and Physical Perfection. Our agents are meeting with excellent success, and doing a great deal of good. We want one thousand more. All who desire to make money and do good at the same time will please address the Publishers for special terms to Agents.

Lecturers for Next Winter.—As lyceums are now making out their lists of lecturers for the coming winter, we wish to say that, beside the old and tried public speakers who are well known to the public, there are every year new men coming into the field who have a claim to be heard, and who, from the fact that they are new men, have something new to say. Among these we mention with special pleasure our esteemed friend and contributor Moses Coit Tyler of Poughkeepsie, N. Y. Mr. Tyler has resided in London for several years, and is well known to our readers as the author of those valuable papers, "Minutes of the Brawnville Athletic Club." His new lecture takes for its subject that noble English reformer and statesman, John Bright, and it can not fail to be interesting to all Americans. Mr. Tyler has had most flattering success wherever he has lectured, both in this country and England. We bespeak for him opportunities to fill engagements wherever there is a field large enough to make it possible. He should be engaged early.

The Pangymnastikon.—We can not afford the space necessary to keep a long advertisement of this valuable instrument in our journal, and therefore take this means of saying that we will send them for $10 and $15. See back numbers of this magazine, or send three-cent stamp for circular.

Send Stamps.—Persons sending for circulars, or wishing answers to letters sent us, must inclose postage stamp to insure a reply. Three cents is but a small amount for one to pay, but when you pay that amount over three or four thousand letters it amounts to many dollars.

Our New Book.—"The Philosophy of Human Beauty; or, Hints Toward Physical Perfection." This book will be sent for $1 75. It is most beautifully bound and profusely illustrated. Agents could sell hundreds of them.

The March Number.—The March number of THE HERALD for 1867 is out of print. Persons having them to spare will be paid 20 cents in books by returning the same to us in good order.

Advertisements.

☞ ADVERTISEMENTS of an appropriate character will be inserted at the following rates: Short advertisements, 25 cents per line; thirteen lines, for three or more insertions without change, 20 per cent. discount; one-half column, $12; one column, $23; one page, $40. All advertisements must be received at this office by the 5th of the month preceding that on which they are to appear.

SUMMER STOVES.

THE UNCOMFORTABLE HEAT
IN THE HOUSE,
As well as much
TIME AND EXPENSE,
And the dust of coal stoves and ranges,
MAY BE AVOIDED,
By the use of
ETNA OR STAR GAS STOVES,
Or Eddy Oil Stoves, which
COOK
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MOORE & NICHOLS, Manufacturers,
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Nos. 338 & 340 ADELPHI STREET,

BROOKLYN, L. I.

Academic Department for Boys Alone.

Preparatory Department for Boys and Girls.

ELEVEN GRADES.

Fifteen to Twenty Instructors in Constant Attendance.

GROWTH OF THE SCHOOL:

Number of pupils at the re-opening under the new regime, September, 1863..... 11
Whole number of pupils for 1863–4..... 23
Whole number of pupils for 1864–5..... 61
Whole number of pupils for 1865–6..... 156
Whole number of pupils for 1866–7..... 309

Next Session begins September 16, 1867.

Candidates for admission should apply on the 12th, 13th, or 14th of the month.

This School has won its way in four years to an unexampled prosperity. This is due largely to the careful system of Physical Training it has provided in connection with thorough mental instruction. This system is the so-called "Light Gymnastics" of Dr. Dio Lewis.

Pupils from a distance are accommodated with board in teachers' families.

Pupils from New York crossing Fulton Ferry should take the Fulton or Greene Avenue cars; those crossing South Ferry, the Atlantic Avenue cars. For further information address "Adelphi Academy," Brooklyn, L. I.

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"AMERICAN SCHOOL INSTITUTE,"

FOUNDED 1855,

Is a Reliable Educational Bureau
For supplying Schools and Families with Teachers;
For representing Teachers who seek positions;
For giving Parents information of good Schools.

Testimony of Rev. Eben S. Stearns, Principal of Albany Female Academy, New York:

"I have tried 'The American School Institute,' and regard it a most desirable medium for supplying our schools and seminaries with the best teachers, and for representing well-qualified teachers who wish employment. All who are seeking teachers will find a wide range from which to select, with an assurance that in stating character and qualifications, there is no humbug, and there can be no mistake. Teachers will find situations for which they may otherwise seek in vain. The highly respectable character of the gentlemen who conduct the "Institute," affords a sufficient guarantee not only of fair dealing, but also of kind and polite treatment to all."

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Compressed Air Baths, Turkish Baths, Electric Baths, and all the appliances of a First Class Cure. Send for a circular. Address H. P. BURDICK, M. D., or Mrs. BRYANT BURDICK, M. D., BURDICK HOUSE, Buffalo, N. Y. je-tf

LIST OF ARTICLES FOR SALE BY

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BACON'S HOME GYMNASIUM, with book of explanation and 100 cuts, $10.

——Trapese Adjustment, with 32 illustrations, $3 50.

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Each part sold separately. The whole, $15.

This is the most valuable piece of Gymnastic apparatus for home use ever invented. Any one can use it. For weak chests, backs, and sides its use is the best remedy known. A half hour's use of it daily would prevent and cure many cases of dyspepsia and consumption.

SYRINGES.—The best styles in market. Usual style, by mail, $3. Continuous stream, $3 50. For children, with Eye and Ear Douche for sores, etc., $2. Improved Vaginal or Uterine Syringe, $2. The Spray Syringe, $3. The Trade supplied.

FILTERS.—Kedzie's, $10.

LADIES' SUSPENDERS, to support the clothing over the shoulders, instead of on the hips, the latter mode causing many serious weaknesses. By mail, $2.

BREAD PANS—for making light, aerated Bread without soda, saleratus, yeast, or other poisonous compounds. Only by Express, $1 25.

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For a copy, address, inclosing 25 cents, GEO. H. TAYLOR, 67 W. Thirty-eighth Street, New York. my-tf

DIPTHERIA.

A New Edition of Diptheria, its Nature, History, Causes, Prevention and Treatment on Hygienic Principles, with a *resume* of the various theories and practices of the medical profession is now ready; price, by mail, $1 50.

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HYGIENIC INSTITUTE,

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"Fighting against Wrong, and for the Good, the True and the Beautiful."

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THE LITTLE CORPORAL

Is acknowledged by the leading papers to be the BEST

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Published Monthly by A. L. SEWELL, Chicago, Ill.
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For the sake of doubling our already very large list, we offer a

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1. Parlor Organs and Melodeons are offered as Premiums for Large Clubs of New Subscribers. This is a splendid chance for Schools or Families to secure fine instruments easily. See last number of The Little Corporal.
2. "The Heavenly Cherubs," our magnificent Premium Picture. See same paper.
3. All who send six names, with six dollars, at one time, will receive the Premium Picture and The Little Corporal free for one year, either 1866 or 1867.

Other Premiums are offered for Clubs of various sizes.

SHORT EXTRACTS FROM NOTICES OF THE PRESS.

The New York Tribune says: "The only literary periodical which has ever succeeded in our Western States is The Little Corporal. Its subscription list at the end of the first year numbers thirty-five thousand, and if it continues to be conducted with the same ability and enterprise which are now devoted to it, there is no reason why the second year should not close with a roll of seventy thousand subscribers. It is an admirable periodical, lively, entertaining, instructive, unexceptionable in tone, and charmingly printed. It is published at the low price of $1 a year."

The Delaware, O., Gazette says: "We have no hesitation in saying that The Little Corporal is the best juvenile paper published."

The Council Bluffs Nonpareil says: "The Little Corporal is simple without being insipid, and childish, without being silly; while its moral lessons are such as children of a larger growth may study to advantage."

The Kewanee Dial says: "It sparkles and bubbles like a perpetually overflowing spring, and grows better, if possible, from month to month."

The Marshall Statesman says: "The Little Corporal is the best juvenile paper published in the world."

The Pennsylvania Teacher says: "The Little Corporal is the most entertaining publication for the young that we have ever examined. We can not see how it possibly can have a superior, or if it could have, how the young folks could possibly wish for any thing better."

The Ohio Educational Monthly says: "We most heartily wish that this sparkling and instructive paper could be placed in the hands of every boy and girl in the country. Our young folks think the months very long that separate its visits."

The Davenport, Iowa, Gazette says: "The Little Corporal is deservedly praised as the best periodical for juveniles and the home fireside yet published in the whole circle of American literature."

The Bryan, O., Press says: "The best juvenile paper published."

The Iowa Temperance Platform says: "We speak only the sober truth when we say that this is the best paper for children in the world."

The Pacific Christian Advocate says: "The Little Corporal is unquestionably the best periodical for children in the United States."

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ALFRED L. SEWELL, Publisher,
Chicago, Ill.

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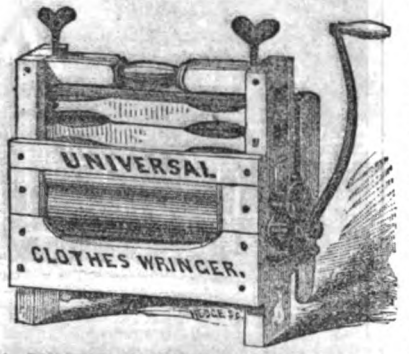
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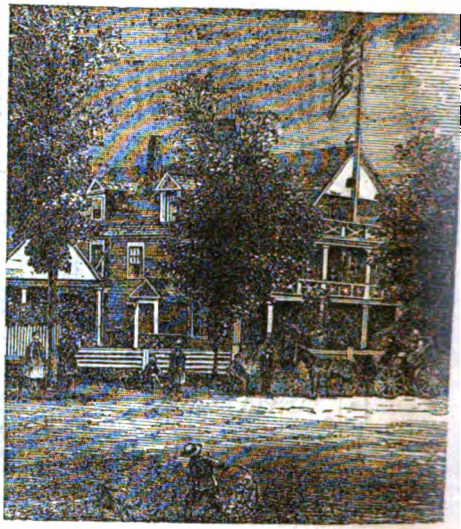
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HYGIENIC MEDICATION, BODILY DEVELOPMENT, AND THE LAWS OF LIFE.

SEPTEMBER, 1867.

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General Articles---Hygienic and Miscellaneous.

MINUTES

OF THE

Brawnville Athletic Club.

EDITED BY MOSES COIT TYLER.

VI.

OUR HOUSE WARMING, AND HOW WE MADE OUR OWN THUNDER.

BRAWNVILLE, *June* 26, 1866.

"YES; I have heard from Col. Higginson. The letter came to-day. I am sorry to tell you that he is unable to be with us at the opening of our Club House."

Such were the words of Judge Fairplay, at one of the meetings of the Club, three or four weeks ago, in reply to the question of a member. These meetings, by the way, are very charming. They are attended not only by gentlemen, but by ladies, and even by some of the little people; and the Judge, who is always in the chair, and always mingles suavity with rigor, contrives to call out among us a good deal of familiar and spontaneous action, while he never fails to maintain the needful amount of parliamentary decorum.

"A gentleman at the other end of the room," continued the Judge, after a pause, "says that he thinks Col. Higginson's inability to come is not to be regretted, because Col. Higginson is an 'infidel.' It is not best to take up much time in this place in discussing this subject; but I am anxious, in all kindness, to say to my friend yonder, that when he makes such a remark about such a man as Col. Higginson, I am more sorry for *him* than I am for the Colonel. [Laughter.] Please do not laugh, friends. You thus put a sting into a remark which was not meant to have any. I do not wish to give my friend a pang, but a suggestion. But as to that word 'infidel'—you know we New Englanders have always objected to the old Southern mode of arguing with any anti-slavery man so unfortunate as to stray into their country. This was their mode: not to answer his arguments, but to tar and feather *him*. Well, have you ever considered that to call a man by so damning a name as 'infidel' is to use essentially the same evasive mode of logic—is to cover the man with a *verbal* coat of tar and feathers? [Laughter and cheers.] On the whole, I think the slaveholder's real coat of tar and feathers is not so bad—nay, that it is not so malignant or so mean either—as is the theologian's ideal one. The former will wash off—the latter won't. [Laughter.] Pardon me, dear friends; I am, perhaps, betrayed by your kindness to say too much. [Earnest cries of "Go on!"] But I want to suggest that we should remember three things, in case we are ever tempted to call any man an 'infidel'—especially, if it should be such a man as Thomas Wentworth Higginson, a gentleman of devout and pure life, and of great benignity of character, to say nothing of his being a patriot, a brave soldier,

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a superb scholar, and the most exquisite prose writer left to America since the death of Hawthorne. [Great cheering.] Let us remember, first, that this word 'infidel' is but the puppet of geography, and that we who use it in such a case do but expose our own servitude to a local narrowness. Consider this. You call Higginson 'infidel;' but the Pope calls both of you infidels—Higginson, and you, too; and the Greek Churchman calls all three of you infidels—Higginson, you, and the Pope; then the Jew gets up and calls all four of you infidels—Higginson, you, the Pope, and the Greek Churchman; then the Moslem is ready to call all five of you infidels—Higginson, you, the Pope, the Greek Churchman, and the Jew; and, finally, some big priest on the other side of the Chinese wall will peep over that huge structure, and swear by Confucius, that the whole lot of you are infidels, and barbarians to boot; and so you can go around the globe, and you will begin to discover that 'infidel' is a bad name, which one part of the map is inclined to bestow on all the other parts. Now, if we New England Calvinists have such a monopoly of the truth that we are entitled to call the first serious divergence from our views a serious error, let us at least show, by the language we use, that our enormous endowment of truth has not deprived us of our good sense [loud cheers], to say nothing of our charity. [Cheers.] That is the first thing to remember. The second is this: that whosoever applies so injurious an epithet for a difference of opinion, inflicts the greatest injury which modern law permits to him, and he really joins the great company of persecutors—he belongs historically to the party of Torquemada, Bloody Mary, and Bishop Bonner. [Cheers.] And this is the third point: that just as a certain sensible preacher objected to the Devil having all the best tunes, so should we object to the Devil having nearly all the best men. [Laughter and applause.]

"But enough of this subject.

"Now, ladies and gentlemen, as we can not have our new building opened by the author of 'Out-door Papers'—a bit of writing perhaps the wittiest and most effective ever produced on physical culture—I propose that we give up hunting for big guns from abroad, and use such guns, big or little, as we have on the spot. Let us fall back on our own resources. Let us have a roaring public meeting to inaugurate the Club House; but let us manufacture our own thunder for the occasion." [Cheers.]

And it was decided that so it should be. And to-night we have had our house-warming, and have executed the programme gloriously, thunder and all.

Our great Hall of Exercise was filled with chairs; and, long before the hour appointed, the chairs were filled with people. There were over the vast assemblage those animated looks and that buzz of multitudinous talk which are so suggestive of general pleasure and of eager interest.

At the end of the hall farthest from the entrance a stage had been erected for an exhibition of the Dio Lewis Gymnastics—the only kind of gymnastic work we have yet attempted: and just in front of this stage was a smaller one to be occupied by the President and other officers of the Club. A sufficient space to the left of the platform was reserved for the classes: while the space to the right was occupied by that obliging and strong-lunged association, the Brownville Brass Band, which gave its services gratuitously.

Our brass band is probably like most brass bands in rural districts—it is not restrained by any such frailty as diffidence from making itself distinctly heard—not to say felt—at all proper opportunities. It has in an eminent degree that powerful quality which has distinguished many of the great orators and warriors of history—a comfortable assurance of its own merits and of the largeness of its place in the universe; and you may depend upon it, that so long as brass and wind do not give out, a more than cheerful assent will be given to all requests for "a little more music"—as its performances are somewhat generously termed. It is not impossible that, within a room like our hall, this sonorous zeal of our brass band may be rather greater than is altogether agreeable to those among us who chance to be afflicted with delicate nerves and sensitive ears; and I fear that some of our people have at times yielded to the temptation of applying to brass bands in general the compliment that was once paid to bagpipes in general, to wit: that the bagpipe is a very noble instrument, in one of just two situations—either with the listener in a small boat in the middle of a Scottish lake and the bagpipe on a distant hill, or else with the listener on a distant hill and the bagpipe in a small boat in the middle of a Scottish lake!

The meeting was opened with a display of the dumb-bell exercises, performed by some thirty or forty little boys and girls, all in bright and graceful gymnastic costume. It seemed as if the interest of the meeting must have struck twelve at the very beginning. The most of those present had known of the exercises only

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by report; and as the fairy-like troupe of beautiful children, to the accompaniment of stirring music [stirring in more senses than one], dashed through these movements, in perfect concert, with great agility, precision, and vigor, with an indescribable vivacity, with an airy lightness and statuesque grace, the people at some passages actually held their breaths from astonishment and delight; and I could see many an eye —no doubt of brother or sister—glistening with happy tears. But when at last the end of the series was reached, and the music stopped, and the little athletes began retreating from the platform to their seats below, the whole assemblage rose to their feet, clapped their hands, waved their handkerchiefs, and filled the air with acclamations of applause. It was a sacred scene. It was the irrepressible joy of fathers and mothers, of brothers and sisters, exulting in the new-born beauty and felicity of those most dear to them; but the radiant children, not understanding this explosion of enthusiasm, paused for a moment, almost alarmed, but were soon restored by the discovery that all this uproar and commotion meant praise; and as they reached their seats, and exchanged quick glances with each other and with their friends in the audience, I thought that I had never seen young eyes dancing and sparkling with so much joy.

It took several minutes for the people to give vent to their emotions and to become calm enough to listen to the speaking; and Judge Fairplay, our President, well knowing that each moment so spent was but driving the cause he loved nearer to the center of the popular heart, made no attempt to check their demonstrations. Soon, however, another thought, another emotion, seemed to flash from brain to brain, from heart to heart; it was this: of gratitude to Judge Fairplay. There, at that moment, was sitting before them, and about to address them, the wise and noble man, their own neighbor and friend, to whose providence, to whose sagacity, to whose courage and munificence, they were indebted not alone for this great and splendid edifice, but for this brilliant proof of what was possible in the development of beauty, gracefulness, and strength in themselves and their children. Nothing could have been contrived by the most consummate artist in the manipulation of human passion, more effective for a personal ovation, than such a gymnastic display immediately before the rising of Judge Fairplay. And in this case our pleasure was enhanced by the fact that we knew that no manipulation had been practiced; for the Judge is as modest as he is broad-minded, far-seeing, and generous. But when at last the honored man rose to address us, the impassioned logic of the moment seized upon every heart; and again the people sprang to their feet, and again with loud shouts, and hand clapping, and waving of handkerchiefs, continued moment after moment, and caught up and repeated each time with increased energy, they tried to utter to their benefactor, in a language more expressive than words, the admiration and the gratitude that filled their souls. When, however, there came at last a lull, silence as deep as the tempest had been loud settled down upon the people; and all bent forward to hear what the Judge would say. But he could not speak. The strong man was overmastered. Twice or thrice his lips moved; his eyes filled with tears; and though with the resolution of a proud man he struggled hard to control himself, he had to stand some time in silence. We all felt that this was the most eloquent speech we had ever known even the eloquent Judge Fairplay to make; and those of us who were not ourselves too full of joyful sympathy with him to do so, once more broke forth into loud and long cheering. When again there was silence, the Judge said slowly, as if fighting hard for every word:

"I had intended now to address to the meeting a few observations which I thought would be appropriate to this hour; but I must reserve them till, perhaps, a later stage of the meeting. From my heart I thank you for this kindness; and, so far as any agency of mine may be accredited with a small part of of the merit of securing for us and for our posterity this admirable edifice, I am rewarded—a thousand and a thousand times rewarded—by the wonderful spectacle of beauty, intelligence, and disciplined energy, just presented to us by these, the dear children of our own village. [Great cheering.] Our friend, the friend of every man, woman, and child in Brawnville, the man who from the very inception of our Club has been warmly interested in it, and who has given to its cause his brain, his heart, and his great influence, the Rev. Mr. Bland, will now speak to you."

No other man in Brawnville, always excepting Judge Fairplay, could have had so hearty a greeting as that which now welcomed the rising of Parson Bland. He began by saying:

"Friends—I do not envy that man his composure who, after such a scene as we have just had, with such emotions as we still have, could rise here and make a glib speech. I confess to you that I am still too much under the potent spell of that excitement, that generous and

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grateful excitement, which has pervaded this entire assemblage, and almost rocked this house upon its foundations, either to speak or to think with clearness."

Mr. Bland, gradually regaining his self-command and his fluency, then proceeded to congratulate the people on the completion of the new edifice, and the success which had attended the first efforts of the Athletic Club; he expatiated in glowing terms upon the manifold benefits which were to flow from the institution upon the whole community, and through all coming time; and then he put the question to them, to whom, in their opinion, more than to all other men, were they indebted for such a vast benefaction; to whose public spirit, to whose discernment, to whose purse. "I see," he exclaimed, "that your eyes answer the question for me." He then suddenly turned toward Judge Fairplay, and in a strain of thrilling eloquence he expressed to him the gratitude of the people now in his presence, and even anticipated the thankful remembrance of the generations yet to dwell there and to partake of the blessing.

During this part of the speech there was no dry eye in the house, unless possibly in the seat which held the festive Deacon Snipp and his amiable friends.

Mr. Bland concluded his magnificent address by pointing out that, after all, the best way of thanking Judge Fairplay was to make a good use of the institution which he had done so much to found.

On a certain former occasion, when, as on the present, the Brawnville Brass Band had given its services gratuitously, its members had taken deep offense at a seeming slight which had been put upon them. They thought—what every body knows is a very unusual thing for musical people to do—they thought that their talents were not appreciated, for the simple reason that they were not called upon to display those talents with sufficient frequency. In drawing out our programme for this evening we resolved to avoid this mistake; and, accordingly, at every possible point we had put in that slightly ironical phrase—"*Music* by the Band."

So, after Mr. Bland, came once more the band, and then another gymnastic display, which produced an impression even greater than that made by the children. This was the series of ring exercises by a class of ladies and gentlemen all arrayed in brilliant gymnastic suits.

Then the boys and girls came upon the platform again; and standing in semi-circle and forming a group which, for picturesque attitude and varied color, seemed like some gorgeous transfiguration scene, they sang with piano accompaniment, to the tune "Sparkling and Bright," the "Song of the Gymnasts." Into the chorus they especially threw an immense amount of vigor, and were assisted in doing so by a large part of the audience, who seemed to exult in shouting:

"Then work away, till a better day
On our pill-cursed race is shining;
For the 'bell' and the 'ring' shall defiance fling
At the fiends of Disease and Pining!"

In the midst of the good humor and glee excited by the singing of this song, Judge Fairplay rose and said:

"When men forget that there are two sides to every subject they become bigots. There are bigots upon all subjects—even upon the subject of bigotry. How often do we see that curious specimen of natural history, an illiberal-Liberal, a narrow Broad-Churchman! The greatest thing we have to fear in connection with the Brawnville Athletic Club is that, from the extraordinary success which has attended it, we shall have the argument all our own way; that we shall become intellectually corrupted; that we shall forget that there are two sides even to our pet subject of physical culture; and that thus we shall become those most vulgar and offensive of all bigots—Gymnastic bigots! [Cheers.] For this reason I think that my friend, Dr. Drugger—the coolest, keenest, ablest opponent of our cause in Brawnville—is really just now about the most useful man in town. It seems to be a part of the Doctor's mission to preserve us from gymnastic bigotry—from athletic fanaticism! [Cheers.] The Doctor has very reluctantly consented, at the urgent entreaty of the Committee, to say a few words to us to-night; and I know you will authorize me in assuring him of the most polite attention." [Cheers.]

The Judge had touched skillfully that chord of chivalrous feeling which is strung in every human soul. The Doctor's ascent to the platform was amid the honorable greetings of those to whom he stood as an avowed opponent.

Morally, there was no finer scene presented during the whole evening—an evening so opulent in fine scenes! The Doctor said:

"I am sure, ladies and gentlemen, that I must be very hardened in my hostility to your gymnastic creed to hold out against such man-

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nanimity as you and your noble Chairman have just displayed, as well as against such exquisite eloquence, such bewitching logic, as your gymnasts have to-night put into their attitudes and their movements. You are likely to conquer me, if you conquer me at all, through my heart and my eyes. [Cheers.]

"I will try to emulate your own generosity by making to you one confession, which I do in a whisper and in strict confidence. [Laughter.] Those beautiful boys and girls nearly took my breath away—and my opinions, too. [Cheers.] I have never before seen the Dio Lewis exercises. Greatly as I dislike Dr. Dio Lewis, I must admit that his gymnastics seem beyond attack. [Cheers.] At all events, I shall have to go home and think the matter over before I shall be able to state any objections to them. I confess that I do not at present see how the arguments which at your first public meeting I brought against gymnastics in general, can apply to the system of Dr. Lewis. And this admission may be of more worth in your eyes if I tell you that, as a medical man, I look upon Dr. Lewis as a large-sized charlatan. Please do not misunderstand me—I am not converted even to the Dio Lewis Gymnastics. I merely say that I do not at first sight see any objection to them. I intend to keep a close watch upon them. I may yet discover that they produce evil results which are not now apparent.

"But what do we see all about this hall? Your Club is not limited to this species of gymnastics. Already I observe the preparations for the great machinery of the German system—those neck-imperilling engines, those bone-breaking implements, the very sight of which presents a cheering prospect of business for the surgeon! [Laughter.] If, indeed, I looked at this subject with that paltry, that wicked professional selfishness which one of your speakers last winter so unfairly insinuated [here many eyes were turned toward Abdiel Standish, who sat imperturbable as ever], I should favor your gymnastic scheme as full of the most exhilarating promise of disease and mortality! [Laughter.]

"I intend to wait till your great shop is furnished; till your huge tools are in; till your heavy methods are tested; and I now warn you most emphatically, that if your gymnasium gives me too much professional employment, as I really fear it will, I shall sternly persist in my present opposition! [Cheers.]

"I did not intend to say many words to-night. I will close with one brief remark. Every body is inclined at times to be prophetical. I am so inclined now. I prophecy that these heavy gymnastics, of which the machines are now only partially introduced, will become the favorite ones of just those persons most likely to be injured by them—namely, the young men; that young men, finding in them an opportunity of displaying muscular power and physical prowess, will be tempted to exertions which, while they for a time delude with an outward show of power, really deplete the system of its vitality, and lead to a variety of incurable diseases.

"This is my prediction. Mark it! But, athletes, you can do nothing which would gratify me more than by proving that I am a false prophet!" [Great cheering, and cries of "We will do it," "We will do it," from the gymnastic classes.]

While the musicians were getting ready for their next performance, the irrepressible Deacon Snipp, who had manifested great uneasiness during the conciliatory portions of Dr. Drugger's speech, wriggled into a perpendicular position, and requested to be allowed to speak. The audience were in such a magnanimous mood that they did not bestow upon him those marks of their very peculiar consideration with which his rising is generally hailed. The truth is—if the truth must be told—that the Deacon is a bore, an enormous bore, and the very worst kind of an enormous bore, a bore who, saturated and blown out with boundless self-complacency and spiritual pride, bores you to death in the august name of Godliness. Judge Fairplay graciously invited the Deacon to the platform, and informed him that at the conclusion of the impending musical performance he should have the floor.

This delay, together with his conspicuous position on the platform, seemed to add greatly to the Deacon's comfort. Having now his favorite place—the highest seat in the sanctuary, and being in full sight of the whole assemblage, he put on a more than ordinary smirk of sanctity; and rolling his eyes in a devout frenzy, and swelling his body as if he were in danger of bursting with the pent-up piety inside of him, he looked down upon us all with a face which seemed to say: "I, even I only, am left, who have not bowed the knee to Baal!"

At last the Deacon began:

"I do not propose to speak at great length. [Cheers, and from the back of the room expressions of incredulity.] I had originally intended not to come to this meeting. [Great cheering.] But there was one consideration which finally

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induced me to come. [Shouts of "What a pity!"] I thought it my duty to come and stand up before a frowning world [here the whole audience were smiling], and bear witness against this work in which you are engaged. I think that this is the saddest day that Brawnville ever knew. [General mirth.] Unless Providence interferes, I expect to see the walls of Zion falling into decay, and the people going away after idols—ten-pins, dancing, billiards, croquet, and other carnal pleasures. [Here the audience began to show impatience with this rigmarole, but were pacified by the Chairman, and induced to hear the rest in dead silence.] I am grieved to see some signs that even Dr. Drugger is beginning to yield to this melancholy spirit of worldly mindedness. I have always looked upon him as one of our soundest conservative men. But I trust that, whoever else may become recreant, I, at least, shall remain faithful to piety and conservatism. Thank God, there is, at least, a small band of conservative spirits still left, who will, by the grace of God, stand in the gap against the flood of radicalism and impiety."

So soon as the Deacon had ceased, and while he was yet descending from the platform, loud cries of "Abdiel" rang through the hall. The Committee had hoped that Abdiel Standish would not be induced to speak to-night; for although he is a man of shrewd observation and acute sense, and in his unkempt fashion often says things which are really worth hearing, he is yet often extremely coarse and personal in his ridicule, and is always shockingly provincial in his language; and we feared that the elevated tone of the meeting would be marred by what he would be likely to say. If he must speak, however, he could not have a fitter victim than the canting and conceited Deacon; and the uprising of the latter rendered that of Abdiel inevitable. He responded without reluctance to the calls of the audience; and, as is usual with him, as well as with many other American orators, he commenced his harangue with a "little story."

"While listenin' to the lamingtations of the ven'rable gen'l'man who has jest sot down, I've been strongly r'minded of a pussun of my acquaintince who was addicted to the habit of imbibin' that pernishuous flooid which is always greatly improved by bein' thrown into the gutter. But this pussun did'nt think so. He was never known to throw any of that flooid into the gutter, 'xcep when he went along with it hisself. [Laughter.] On one occasion he came hum in a state of considible intellectooal confoosion. Bein' still raither dry, he thought as a great novelty he'd try a drink o' water, and he took up a tumbler into which a little ball o' silk thread had fallin, and swallered the water and the silk too. But the end o' the silk ketchin' in his teeth, he took hold of it, and began to pull. And he kep pullin' yard after yard, till at last he got frightened, and yelled out: 'Here, wife, come quick, I'm *unravellin'*.' [Roars of laughter.] I don't mean to insinooate nothin' 'bout the good Deac'n's bev'rage afore he came here to-night; but I've jist got this to say—from the very doleful view he takes o' matters and things in general, I can't help the suspicion that he's unravellin'! [Great laughter.] And not only so, but he seems to think that the univarse is sufferin' from the same complaint.

"The good Deac'n has given us to-night a sort o' wail about consarvatism.

"Now, we've got jest two sorts o' folks in this 'ere town. One sort is for improvement. The other is dead set agin improvement of any kind; for the simple reason that they are agin change. And it's as sartin as mullin stalks that you can't have improvement without some change somewhar. They want society to stop or move back'ard. They seem to think it's the chief end o' man to be like a balky hoss; and ef they was agoin' to make a harness, I s'pose they'd make it all brichin'. [Laughter.] Wal, they've got a very purty word to call 'emselves. They call 'emselves consarvatives.

"Now, friends, it sort o' seems to me that whether there's any merit in bein' consarvative depends 'xackly on what kind of a thing it is you want to consarve. Ef you are a tryin' to consarve what is good, and useful, and true, why it's all right; and this Club means to be a consarvative Club. We are for consarvin' people's health; we are for consarvin' youth, and happiness, and fresh air, and pure water, and wholesome food, and all good customs. But the great trouble in this world, I've always noticed, is jest this: those who crow, and cackle, and scream so much about consarvatism don't stop to ask whether a thing is good or bad; but ef a thing is old they think it ought'nt to be disturbed; they is for havin' things stay put jest as they are, whether good or bad. Accordingly, they propose to consarve some things we want to smash up, such as a good many foolish New England customs, and sins not put down in the catechism—sech as dyspepsy, and headache, and weak backs, and shiffless nerves. But there are still livin' some folks like them that were spoken of the other day in the papers—

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folks who are so consarative that ef God 'lmighty had consulted 'em about the creation o' the world, they would have advised him to consarve chaos. [Laughter.] An' what's more, they objeck to discussin' things. Now, in my 'umble opinion, ef a thing won't bear discussin', it's jest because it desarves merely cussin'. [Loud laughter and cheers.]

"We believe in the sort o' conservatism spoken of by the Apostle: 'Try all things—hold fast that which is good." [Great cheering.]

Abdiel's speech seemed to gratify the people wonderfully, and he returned to his seat in triumph. Then came more music; then more gymnastics; then a brief but suggestive speech by Judge Fairplay—which I regret that I was too weary to report; then the song of "My Country" by the whole assemblage; and finally, with three ringing cheers for the Club, and three for its President, and three for the ladies, the people dispersed—fully impressed that we had just attended the best meeting ever held in Brawnville—or any where else!

[TO BE CONTINUED.]

A Humorous Glance at the Temperance Question.

BY GEORGE W. BUNGAY.

GRAVE objectors to the Temperance Reform assure us that man is an animal born with an appetite for intoxicating drinks, and with wisdom which enables him to invent a beverage which gratifies his passion for stimulants. Is this thirst for spirituous and malt liquors inherent in a well born child? If whisky, like its mother's milk, is the natural drink of infancy, why does the little one double up its fists to fight the hand which puts the cup or the spoon to its pure and innocent lips? Why does it make up a sorrowful or an angry face, and break out in spasms of crying, when the firewater burns the delicate membranes of the mouth? Why was not the stomach furnished with juices that can digest alcohol, and lined with tissues so tough that inflammation and ulceration would not follow the frequent use of the poison? If nature had intended that man should be the recipient of intoxicating liquors, he would have been organized more like a churn, and with heels larger than his head, so that the more he drank the firmer he would stand. Now, the more he drinks the less firmly he stands. He not only drinks until his understanding has gone, but until his power to stand has left him. When he opens his mouth to ask, like Oliver Twist, for more, one is reminded of that clause in the Excise Law which forbids the opening of a grog-hole without a license.

A well organized human being drinks when he is thirsty for the purpose of quenching thirst. Alcohol will not quench thirst, hence tipplers and topers, who endeavor to keep their spirits up by pouring spirits down, usually take a drink of water immediately after swallowing their alcoholic potations. In some of the gin mills this habit may not be as general as in others, since the landlords and the bar-tenders attend to the diluting process by pouring the *aqua pura* into the original packages. The consumers, in nine cases out of ten, would prefer to do their own mixing, or, like the boarder who wished the butter and the hair brought to him on separate dishes, they desire different goblets. It used to take three scruples to make one drachm; now, men in the liquor trade make a dram without any scruples whatever. They are compelled to pay heavy duties, and taxes, and high prices, and exorbitant rents, and they are hemmed in by excise laws, and forced to curtail the hours of the traffic—and water is an innocent beverage. These thoughts are the balm of wounded conscience, and, like the rags in the arm-pits of the prophet, they "stop the hurt" which would follow every attempt to lift them up from the pit of the bar.

A landlord is like that manager of a theater in St. Louis, who offered a silver cup for the best conundrum. "He presents the cup, which brings many to the pit, while those above are in tiers." Now, I do not object to the water which these dealers put into their brandy. I object to the brandy, which spoils the water. It spoils the taste of it, spoils the effect of it. It is worse than Byles Gridley's mixing lies with truth, for fear the former would be so strong as to burn the consumer without dilution. But the water is truth, and, like truth, it comes from a well; and the brandy is a lie, a liquid lie, a lie in the throat. It can not be trusted. It promises wisdom, and gives foolishness; it promises strength, and gives weakness; it promises wealth, and gives poverty.

Our objector says man is an animal. So he is; but he is also an angel, and the latter should control the former. When the brute gets the mastery of his nature, and sits upon the throne where the angel should sit, then he becomes degraded, mean, and low. The appetite for alcohol will grow with his growth and strengthen with his weakness, and the more powerful it becomes the less power and the less inclination

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he will have to resist it. I compared the drunkard with a brute. I ask the brute's pardon. Man is the only animal that gets drunk voluntarily. The untutored Africans excuse themselves for getting drunk on the ground that the gorilla drinks only water. Young America declared that he would not drink water, because ever since the flood it has a flavor of sinners. "Drunk as a beast" is a common saying; but what beast gets drunk? The ass is a stupid animal, but it is a sober one, and he who drinks to intoxication need not laugh at its redundancy of ear. "Drunk as an owl—as a boiled owl," is a maxim which has been so often in the mouths of drunkards that it has the odor of rum. What does it signify? The owl is a feathered cat which can see in the dark; but the drunkard, when drunk, can not see at any time well enough to distinguish the town pump from his next-door neighbor. The owl is a brother of the quill, who earns his daily food by working at night; but the drunkard spends the earnings of others for that which is not bread, and for that which satisfieth not. The owl never drinks alcohol; it never turns Mrs. Owl and the little Owls out of their nest; it never comes home on reeling wings, although it keeps late hours; it never changes its "tu-whit-to-hoo" for profane speech; it never neglects to make ample provision for its family; it never mistakes the eagle's nest for its own. Then why calumniate that bird by making such foul comparisons? If Nature kindled in man the appetite for alcohol, why do we not find rivers of rum, and brooks of brandy, and springs of spirits, and fountains of wine—as we find water—for its gratification?

A famous ex-Governor of a more famous State said that alcohol would answer in the place of food, and intimated that poor men often found that it was an excellent substitute for bread.

It so happens that even Governors do not know every thing. King George the Third could not imagine how the cook got the apples into the dumplings. Men of science and culture say that alcohol is a stimulant, and that it has no nutritious qualities. It is to the human system what the lash is to the horse. The whip stimulates the horse so that he pulls harder and runs faster, but it does not strengthen him. Oats, not whips, give him strength. You may fill his rack and his manger with whips, but they will not answer in the place of hay and oats. When you see a poor crow-bait high of bones and low of flesh, on whose ribs you might write: "Oats wanted—inquire within," you may be sure, if the animal could speak, he would say, with all his might and *mane*: "Spare the lash, and give me grass, and hay, and oats." If the lash impaired the digestive organs so that they could not perform their functions, and left ulcers on the horse's flanks and in his stomach, and made him bite and kick so that no life was safe when within the reach of his head or his heels, and had such an effect upon him that he would crave its stimulation, it would then be a more perfect type of alcohol.

If alcohol answers in the place of bread, would it not be a good idea for Mr. Farmer to sell his soup kettles, remove his free tables, and erect a bar for the gratuitous distribution of whisky to the poor? Instead of giving a cup of tea and a crust of bread to the beggar at the door, why not give him a drink? If the statement made by ex-Governor Andrew be trustworthy, it was a sin and a shame to stop the distilleries at the time of the famine in Ireland. "What is a barrel of whisky in a family when one has no cow?" was the inquiry of a Western woman, when some one expressed surprise at seeing so much whisky and so little of every thing else in the house. She thought it was a good substitute for milk, and she gave her opinion without a fee, and, unlike some whose opinion costs more than it is worth, she meant what she said. In relation to the wisdom which lead to the discovery of the evil spirit, I have only space to say, in the language of a book not often read by those who object to the cause of Temperance, "God made man upright, but he has sought out many inventions."

JUDGE ——, who is now an able Judge of the Supreme Court of one of the great States of this Union, when he first "came to the bar" was a blundering speaker. On one occasion, when he was trying a case of replevin, involving the right of property to a lot of hogs, he addressed the jury as follows: "Gentlemen of the jury, there were just twenty-four hogs in that drove; just twenty-four gentlemen; just twice as many as there are in that jury box!" The effect can be imagined.

"SURE," said Patrick, rubbing his head with delight at the prospect of a present from his employer, "I always mane to do my duty." "I believe you," replied his employer, "and therefore I shall make you a present of all you have stolen from me during the year." "I thank your honor," replied Pat: "and may all your friends and acquaintances trate you so liberally."

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Summer Rest.

Only pure thoughts befit thy scene,
O fairest of all summer days;
Emotions sacred and serene,
O'erflowing in sweet hymns of praise.

My heart forgets that sin abounds,
That moral darkness clouds life's span;
The din of life's hard battle drowns
The still, small voice that pleads with man.

I fain forget the selfish strife
That rages in a world of care;
Where I must meet the ills of life,
Its grievous burdens bravely bear;

Where I must deal with sordid things,
From which my better self recoils,
And feel the spirit's soaring wings
Drag in the mire of menial toils.

The fragrance from the field and grove
Hath robbed me of a sense of woe,
And turned my thoughts from earth *above*,
To scenes more bright than earth can show.

In that fair land, by power of faith,
I taste the ever-healing balm;
In Lethe's soothing waters bathe,
And find the heavenly rest and calm.

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The Deaf and Dumb.

Number III.

BY HARVEY P. PEET, LL. D.,
PRINCIPAL OF THE NEW YORK INSTITUTION FOR THE INSTRUCTION OF THE DEAF AND DUMB.

CONDITION OF THE UNEDUCATED.

To speak of the condition of the deaf and dumb, who, like all of this class who ever lived till within about three centuries, all in Mohammedan and heathen lands, and not a few among Christians to this day, is to speak of a lot of isolation, of the privation of the means of intellectual and moral development, as well as of social enjoyment, the full significance of which it is not easy to appreciate without actual observation of some person in this unfortunate condition. And as the intellectual and moral development of uneducated deaf mutes is very various in degree, according to their capacity and surroundings; and, from the inability of most observers to communicate with them in their own dialect, it is very apt to appear, according to the pre-occupation of the observer, either greater or less than it really is, it is not surprising that writers are found to differ widely in their estimates of the intelligence and moral characteristics of the uneducated deaf and dumb, as a class.

There are those among them who have been neglected and thrust of society—who have grown up scarcely able to make known their most pressing bodily wants by signs of the rudest description, and who have scarcely any other sources of enjoyment than the gratification of their animal appetites. For such a being the whole world is bounded by the hills that close his own view, and all history is a blank. The most weighty consultations, the most solemn worship of men, seem to him at best a set play at mouthing and posturing. The future has for him no other hope than that of evading death and living on in sensual enjoyment.

There are those, again, whose native activity of mind has triumphed over the obstacles in the way of social communion with those around them, who have been from childhood the objects of affectionate and intelligent care, and who have found companions ready and skillful to aid them in developing and improving their natural language of gestures. Such deaf mutes, even if they never learned to understand a word of a book, are sometimes found to be able to communicate with those around them on all matters connected with their daity wants, daily avocations, the events transpiring in the neighborhood, their pecuniary transactions, etc., even to share in social talk and badinage, and in some cases to receive more or less correct information concerning distant countries, the past history of our race, and man's future destiny.

In short, the condition of the unlettered deaf and dumb may, in some cases, be such as almost to justify the dark picture drawn by Condillac, Sicard, and others, who describe this class of persons as mere walking machines, as devoid of reason as the dog or the ape; or it may in other cases seem to confirm the views of others, who, witnessing the intelligence, activity, and business tact displayed by some uneducated deaf mutes, and the quickness with which they seem to divine what is said respecting themselves, have held them in awe as beings endowed with a mysterious intelligence, and superior, in some respects, at least, to the average of those who possess all their faculties.

This great difference in moral and intellectual development is not wholly due to natural difference of capacity, though, of course, there are found all degrees of intellectual capacity among the deaf and dumb, from a dullness ap-

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proaching idiocy to that quickness of perception, luxuriance of imagination, and general intellectual power which, in such deaf mutes as Massieu and Clerc, has astonished the world. Where the intellect is naturally only mediocre, while isolation leaves the unfortunate mute to ignorance and stupidity of the darkest type, on the other hand free intercourse with even but a few associates, by the aid of an expanded and improved dialect of gestures, will to a surprising degree develop and sharpen the faculties. And there have been cases in which, for the want of such early opportunities of mental and moral development, deaf mutes have reached the age of fifteen or eighteen in a condition apparently little superior to idiocy, and then, when placed in one of our schools, where they see all around them converse by signs easily learned, and explained and vivified by natural gestures and the expressions of the countenance, their long-dormant faculties are awakened, and they have soon shown themselves among the foremost in every intellectual contest.

From these remarks the reader will deduce the conclusion that the misfortune of the deaf and dumb is not so much in the deprivation of hearing, as in the want of a means of early moral and intellectual development and cultivation.

To most persons the loss of hearing seems, at first sight, more tolerable than the loss of sight. The deaf man, walking freely forth, with the grand spectacle of nature open before him, seems less an object of compassion than the blind man groping in perpetual night. We can easily realize the condition of the blind man. We have only to shut our eyes, and we shut out all that Milton lamented the loss of:

"—— the sweet approach of eve or morn,
Or sight of vernal bloom, or summer's rose,
Or flocks, or herds, or human face divine.
—— for the book of knowledge fair
Presented with an universal blank
Of Nature's works to me expunged and razed."

But if we can shut out the direct voices of man and nature, still ever echoing within us, we can not shut out that interior light and life that has grown with our growth from our first lispings in our mother tongue—that development of the understanding and growth of the sentiments of which speech was the medium, and intercourse by speech the stimulus, or all those accumulated treasures of knowledge, the fruit of the experience and reflection of the whole human race, that came to us unconsciously with the acquisition of speech—every word and phrase we learned in childhood freighted with its own stores of wisdom and knowledge.

So far as knowledge comes from personal observation and experience, the deaf, to whom the great book of nature is open, seem to have an immense advantage over the blind. But a little reflection will show that far more is learned from that copious running commentary, which speech supplies almost every waking hour of his life to the child who hears, than from the text itself, often unintelligible to a child to whom the commentary is inaccessible. Hence it is that, while the blind child readily and without any special instruction acquires its full share of that higher knowledge of which speech is the treasury and the vehicle, the deaf-mute child is—wholly in some cases, to a great extent in most—left to its own unaided resources. It has to begin the world alone—to acquire, by its own unassisted efforts, some glimmerings of that knowledge of causes and effects, of appearance and reality, of wrong and right, of the past and future, which, to its brothers and sisters who hear, comes as an inheritance, transmitted through speech from generation to generation.

The lot of a deaf-mute child is far brighter when he is providentially placed in a family or neighborhood where, from previous experience, some skill in dealing with his case exists; but this is not often the case. At least three-fourths, perhaps nine-tenths, of them are found in families which had had no previous knowledge of the language of signs, or of the right method of training a child in that exceptional condition.

When the deafness of the child is ascertained, which often is not till it fails, at the usual age, to learn to speak (for attention to the changes of the countenance, and sensibility to the slight jars of our wooden floors that accompany most loud noises, is often mistaken by anxious parents for the ability to hear), most parents are utterly at a loss how to act in this novel case. Some endeavor to talk to the child, and to accustom it to understand and imitate the motions of the lips—a proceeding seldom yielding any results; though we have known rare cases, especially where there is a partial degree of hearing, in which in this way a dialect of mouthings and grimaces has been formed, very unpleasant and wholly unintelligible to strangers, but sufficing with the one or two accustomed to it for necessary communications. The greater number, however, fall back sooner or later on the language of gestures, which Nature teaches to all men in circumstances in which speech can not be used. Some, who have heard, or read

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or been spectators of the mode of conversing with the deaf and dumb by signs, and who have a natural facility in the use of gestures, will have recourse to this means of communication sooner, and, to the great advantage of the child, use it much oftener, than those who, from stiffness or prejudice, are slow in learning and awkward in making signs. A bright deaf-mute child, whose relatives aid and encourage him in forming and extending a dialect of signs, is restored to a fair measure of social enjoyment, becomes amenable to moral restraint, and often displays a vivacity and a quickness of intelligence, within a certain range of topics, that make him an object of interest and admiration almost more than of compassion.

There are too many cases, on the other hand, where the lot of the poor deaf-mute child is cast among ignorant, stiff-minded, or prejudiced people, who know nothing of signs, and are stiff and awkward at learning them. In such cases sad indeed is the condition of the deaf mute left without instruction. The description of Sicard, applied to the very worst cases of this kind, can hardly be deemed an exaggeration: "A walking machine, inferior in some respects to the animals. As to morality, he does not even suspect its existence. One might believe that no love for any thing but himself ever entered his soul. He sees every thing without interest, because he looks at nothing. Before receiving the new life of education he is fit for nothing, not even for a laborer; he is a ferocious and barbarous animal."*

But we are happy to testify, for the honor of human nature, that the cases are rare in which the deaf-mute, however neglected, does not show unmistakable proofs of a human intelligence, and human feelings, greatly obstructed in their development and cramped in their manifestations, it is true, but the failings and peculiarities of which are those of childish immaturity and ignorance, not of animal want of reason.

One of their most striking mental peculiarities is that, as their language, in its uncultivated state, possesses few or no general terms, their power of generalization and abstraction is very limited, their ideas running in the concrete form. Their memories are stored with images of objects, and actions, of persons, places, and events, that pass through their minds as in a *camera obscura*. On these objects, events, and actions they can still form and express some simple but correct judgments; and they have a limited knowledge of causes and consequences, and a sense—partly instinctive, partly acquired from experience—of right and wrong. But as the higher motives of religion can only be made clear to them by years of systematic instruction, most of the deaf and dumb who are left uneducated are wanting in self-restraint, and apt to acquire habits injurious to themselves and deeply mortifying to their friends.

While some of them, possessing a dialect of signs generally known in the community in which they live, are usually not only well posted in all events transpiring in the neighborhood, but seem to have some not very incorrect ideas of what their friends attempt to tell them of events in other parts of the world, and may acquire some vague notions of man's past history and future destiny, yet, on a close scrutiny, their ideas on such subjects will be found painfully confused and wide of the truth. When their friends attempt, for instance, to give them some idea of the great truths of immortality, heaven, and hell, they are found (when more successfully instructed in an institution, and able to relate their past experience) to have been led to believe that the good ascended *bodily* from their graves into a pleasant place above the sky, while the wicked were cast *bodily* into a fire.*

Of the domestic and social condition of the uneducated deaf and dumb there are four principal types:

1. That of the small number whose lot has been cast with relations of high character and intelligence, and who are placed by fortune above the necessity for labor. Uneducated adult deaf mutes in such circumstances belong in most civilized lands to the past; but such cases were not uncommon a generation ago. They were usually found correct in external deportment, *au fait* to the visible forms of society, solacing their loneliness with pictures, toys, and childish games, but able to share, through the language of signs, a considerable though inferior degree of social enjoyment.

2. That of the domestic drudge, whose services are monopolized by some relative, and who is kept in a sort of slavery, sometimes of a very mild, and sometimes of a severe type, coarsely clad, faithful and diligent in labor, often skillful in household duties or farm work; usually treated with such a degree of family affection as retains their willing services in the same household for many years. Many uneducated deaf mutes, especially the females, have lived and

*Sicard's Course of Instruction for a Deaf Mute from Birth. *Discours Preliminarie.*

*See the article on the "Notions of the Deaf and Dumb Before Instruction," in The Bibliotheca Sacra for July, 1855.

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died in this condition, which, dark as it is and destitute of hope in the future, is certainly happier than the next.

3. As *wanderers*, passing from one house to another, according to caprice, or in compliance with the allurements of interested relatives; sometimes working well, but never with steadiness, and often degenerating into mere vagrants, who shun labor and rely on popular compassion for the means of living. This is or was a too common condition of uneducated deaf-mute men.

4. As farmers, mechanics, or even laborers, able to manage their own affairs, sometimes heads of families. Of this class there have been some remarkable though rare cases, striking evidences of the fact that a deaf mute who is naturally very quick and intelligent, and who has to do with quick, intelligent, and kindly disposed neighbors, can learn to make his own bargains, do his own work, take care of his own earnings, and compete with his hearing neighbors on not very unequal terms.

To some it may seem that education was superfluous to a deaf mute who thus, without education, shows himself a useful member of society, and even a good father of a family. But a little examination into such cases, rare as they are, will show that here especially education would have borne precious fruits. The most sharp and intelligent of the uninstructed deaf and dumb—those who seem to read the thoughts of others in their eyes, and who often display a marvelous sagacity in what concerns their personal interests, are still, even more than a savage, deplorably destitute of all higher and nobler knowledge. They never heard of Columbus, or of Washington, of Franklin, or of Lincoln. They can not teach their children those great names, or relate those great deeds in our country's history, the mere mention of which arouses patriotism and awakens courage. All literature, with its ennobling thoughts, its vast variety of knowledge, its thrilling narratives, is equally to them a blank. And on the great subject of man's future destiny they can obtain, at best, but some feeble glimmerings of light. Painful it is to contemplate such a doom of ignorance and religious darkness settling on one whose faculties, if developed by education, would have placed him high among the educated and intelligent class of society, and to whom education would have opened all the bright promises by which those, whose earthly lot is one of affliction or sore privation, learn to look to that better land where the deaf shall hear and the dumb shall sing.

Fruit as Food.

BY MRS. M. E. COX, M. D.

THE value of fruit as a principal article of food is neither appreciated nor understood. It is generally considered a luxury, and is too often eaten only between meals, or after as much other food is taken as the stomach can dispose of, and perhaps a little more. Too often the value of fruit for food is quite destroyed by the addition of sweetening and spices, making it little better than candies and sweetmeats.

If left to follow our instincts, would they not lead us to an almost universal use of fruit? Nearly all uncivilized nations use it freely; some live almost entirely upon fruits of different kinds, and they are strong, hardy, and enduring. Might we not learn wisdom from their example? Children, whose appetites are less vitiated than grown persons, if left to themselves, would often eat it in preference to other food. During the Rebellion, when our soldiers could get berries, plums, peaches, melons, grapes, etc., which they ate freely—the surgeons' orders to the contrary notwithstanding—they were soon cured of chronic diarrhea, dysentery, bilious colic, and general weaknesses. Let one reduced by sickness live upon a fruit diet, combined with moderate exercise in the open air, and very often they will rapidly recuperate. I have seen those with torpid livers improve in health fifty per cent. in one season by eating largely of currants, cherries, berries, and apples; not with sugar and cream, nor preserved, but fresh, ripe fruit from the tree and vine. It is equally true of fruit as of pure water, that

"To the days of the aged it added length;
To the might of the strong it added strength;
It freshens the heart and brightens the sight;
'Tis like quaffing a goblet of morning light."

There is much prejudice against the free use of fruit, because it is supposed to be a cause of worms and bowel complaints. It is an erroneous idea, however. It is not the children of farmers and gardeners, who have free access to fruit almost the year round, that suffer most from these diseases; but those who use little or none in its natural state, those whose principal diet consists of pork, fat, high-seasoned meats, doughnuts, pies and cakes shortened with lard; sugar, molasses, cream, etc.; also over-eating, and breathing the air of close, unventilated rooms; living in houses with blinded and curtained windows, and the air around contaminated by pig-styes, barn-yards, henneries, sink

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spouts, and damp, foul cellars filled with decaying vegetables.

If such persons eat a few berries or an apple and happen to have the dysentery or cholera morbus within a week or two, the cause is attributed to the fruit. The fact is, that bowel complaints of summer and autumn, instead of being the result of eating fruits and vegetables, are really the efforts of the vital powers—the *vis medicatrix naturæ*—to cleanse the system of accumulated impurities.

The cultivation and use of fruit is elevating; continual association with Nature's best works develops the moral and intellectual faculties, and gives buoyancy to the spirits, and elasticity and strength to the muscular system, unknown to flesh eaters. We hope soon to see the time when as much or more labor shall be devoted to fruit growing as is now given to rearing cattle, making patent medicine, and destroying the nutritive qualities of fruits by converting them into "native wines," making a demoralizing drink out of wholesome food. "Native wines" make drunkards, but do not lessen drunkenness. What an untold amount of grain and fruit is annually converted into liquors, increasing crime and disease, while thousands are suffering for food! Can we expect the approval of God, or prosper in the midst of such wholesale destruction?

COOKING FRUIT.

The best method is to let Nature cook it. When it is baked, stewed, and roasted in the sunlight it is luscious. Artificial cooking can not improve the ripe bunch of grapes, the pear, peach, plum, strawberry, or juicy cherry. They are sufficiently delicious to tempt the most delicate taste without artificial cooking or mixtures. They are never so nice as when plucked fully ripe from the parent stem. The saliva called forth to welcome them to the digestive organs is far chaster than the carnal gush that animal food engenders. The fruit of the promised land is compared to milk and honey on account of its richness and abundance—milk being to a pastoral people like the ancients a chief article of diet, and wild honey abounding in the "woods." Without a doubt, ripe fruits are to the wearied child what milk is to babes, supplying nourishment to our bodies that can not so well be gained from any other source.

For gratifying the palate it is one of our choicest gifts. The word "Fruit" is from the Latin word *Fruar*, which means to enjoy—to take delight in. How expressive! I repeat, let Nature be the cook, when possible; the air and sunlight can prepare it more temptingly than any artificial fire.

The practice of some fruit-growers of plucking fruit before fully ripe, and laying away in dark cellars or drawers to ripen, is a mistaken and erroneous one, as it is thus rendered less nutritious and the flavor injured. It is more watery, and the taste insipid. It seems that common sense should teach us that the tree knows best how to ripen and develop its own fruit. Fruits growing on the tree near the stem, where they are shaded, are never so rich and well developed as those having free access to the sun's rays.

Simply cooking for a change, or if the fruit must be used before fully ripe, is not objectionable. The fashionable methods of cooking with sugar, or molasses, and spices, even if simply stewed or baked, injures the nutritive qualities, rendering the fruit nearly or quite indigestible. Jellies, jams, and preserves are destroyed for food, and cause sour stomachs, torpid livers, biliousness, and furnish food for worms.

Green fruit should always be cooked before using. Many object to its use altogether. If we lived where ripe fruit could always be had, then I should say let the green alone until ripe. But green fruit is much better than none at all, or inferior or half decayed ripe fruit.

Tin, brass, copper, or any metal or earthen vessel should not be used in cooking fruit; the alkali formed by the acid combining with the metal being a poison, beside giving the fruit a harsh, unpleasant taste. Stone or porcelain can always be obtained for this purpose, and no other should be used.

In order to have cooked fruit rich in flavor and the saccharine element, it should be cooked slowly and thoroughly. If cooked quickly, the juices are separated from the pulp, and are not readily re-absorbed; this gives to tart fruit a very acid taste. Cooking green or hard fruit hastens its ripening, and if done slowly, the natural elements are more fully developed, and the juices penetrate the pulp after it softens, which does not take place if cooked quickly, or removed from the fire as soon as soft. It is more like fruit that is left on the tree until fully ripe, having a sweeter and richer taste.

I have had persons repeatedly ask if I did not use sugar in my sauce, pies, or puddings, saying they were "sweet enough for any one."

By a little practice and experimenting any one can easily learn the art. I have yet to see the fruit that is improved by the addition of the sugar of commerce. I have studied the art of cooking for over twenty years, growing each

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year, on account of ill health, more and more hygienic. For eight years I have not used animal food, and for four years neither animal, mineral, or the proximate principles—as sugar, starch, etc, I sometimes mix sweet and sour fruits together in cooking—as cranberries, green currants, rhubarb, etc., with raisins, figs, or sweet apples, the acid of one neutralizing the excess of sweet in the other, deteriorating neither; while man's sugar, being separated from its natural combination, becomes obnoxious to the digestive organs. If mixed with fruit after it is cooked, the mixture is mechanical—the sugar is only hidden by the acid, as a snake hides in the grass; its bad qualities are present just the same as before. The acid of the fruit aids Nature in getting rid of it, as sugar is constipating and acid the reverse. Acid does not overtax any organ; sugar does several.

If sugar is coated with fruit until it thoroughly penetrates the pulp—as in pies, jellies, and preserves—there is a chemical change, a union of the sugar and the fruit; the fruit partakes of the nature of the sugar, giving up its natural juices and qualities, making the mass an indigestible substance. As sugar preserves fruits from decay, so it preserves them from digestion. There are many causes of derangements of the digestive apparatus, but the use of sugar and molasses is one of the greatest.

A country grocer came to me one evening, as I was waiting for my audience to gather, and asked my opinion of molasses. (I had given several lectures in the place, and one on food.) He said he had noticed the increase of its use within a few years, and with it disease; that those who used most made most frequent calls on the doctor, took more patent medicines, than those who used little. So much for the testimony of a dealer in sweets.

I think I have made the subject sufficiently plain that no one, with the recipes I shall present, can fail to make their cooking palatable to all, without injuring its digestibility, especially if they have a desire to preserve their health.

RECIPES FOR COOKING FOOD.

BAKED APPLES OR PEARS.—Free from imperfections, if any, and bake slowly with a little water in a stone baking-plate. When done, pour the juice over the fruit.

NOTE.—They are nicest baked in a brick oven, after the bread and pies are taken out, because it cooks them evenly and slowly, without burning.

STEWED FRUIT.—Currants, gooseberries, apples, grapes, etc., when two-thirds grown, and until fully ripe, make good sauce by stewing in a little water with dried sweet fruit, as sweet apples, figs, raisins, etc. The dried fruit requires previous soaking and stewing before adding the green fruit. When fully ripe cook slowly, and until the pulp fills with the juice.

STEWED BERRIES.—Strawberries or raspberries, and other soft fruits, should not be cooked if fully ripe. When a little hard, they may be brought to the boiling point with a little water, which will cook them sufficiently without injuring the flavor. If left to stew, they will be but seeds and juice, and the flavor will be lost. Blueberries may be stewed longer, until they will settle to the bottom of the kettle.

STEWED TOMATOES.—Pour boiling water upon ripe tomatoes; let them remain a few minutes to scald and they will peel easily; then stew from half an hour to an hour. They are nice with boiled green corn, or bread toasted brown.

PRESERVATION OF FRUITS.

Perhaps the readers of THE HERALD will be interested to know how to prepare perishable fruit for winter use. The following recipes we have found from several years' trial to be the best that have come to our knowledge. Two years ago we had several gallons of blueberries put up in bottles and jugs, holding from a pint to two gallons, without losing a single bottle. When they were opened the next season they were taken for fresh berries. Our dried ones were almost as nice. We have a box open now, two years old, that are as good as when first packed. If every reader will can and dry some of the different kinds of fruit, they may have fine fruit the year round.

Fruits for winter use should be gathered on a dry, clear day, and care taken not to bruise them. Apples and winter pears can be kept the year round by packing in dry sand, grain, sawdust, and keeping in a cool dry cellar, or buried on a hillside. Grapes may be packed in shallow boxes lined with white paper. All green or decayed ones should be carefully picked from the bunches. Keep in a cool, dry place.

The preservation of the more pulpy fruits depend upon an exclusion of the air, which is accomplished by canning. Any wide-mouthed jar, either glass or stone, also stone jugs, will answer the purpose. For berries, pick carefully, rejecting all blighted or decayed ones. Peaches, plums, etc., pare, and take out the pits. Put the fruit, with a little water, in a porcelain kettle

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le as for stewing, and let it boil just long enough o scald; fill the jars, previously warmed by placng in hot water, with the hot fruit; when full tir with a small slice to expel the air bubbles, nd seal quickly. This may be done by pressng close-fitting corks into the jars and covering hem with wax, or a cement made by melting hree ounces of tallow with a pound of rosin. Another way is to take round pieces of stout loth and dip into the cement; cover the jars vith paper cut to fit the mouth, and tie the cloth round the neck with a strong string, and cover vell with cement. When cool, if it is air-tight, here will be quite a depression, if not, the proess must be repeated. Keep in a cool, dark cellar.

To Dry Small Fruits.—Put a quart or two of fruit, and sufficient water to keep from burning, in a porcelain kettle over the fire till boiling hot; it should not be allowed to stew; skim out the fruit and spread upon plates; add more fruit to the juice and scald as before. When all is scalded simmer the juice till it is quite thick, and pour over the plates of fruit.

Note.—I have found drying in the sun preferable to artificial heat, as the fruit retains more of its natural flavor. In this manner it will dry much sooner than uncooked.

Blackberries, strawberries, cherries, etc., that are nearly tasteless when dried uncooked, are, in this manner, almost as good as fresh. When perfectly dry put them in tin cans, or thick bags, string upon strong twine two yards long, tying the ends. Dry on frames hung upon the south side of a building where the dew will not injure them.

To Dry Apples.—Pare, quarter, core, and keep from flies and dust.

Note.—Cutting in quarters is preferable to slicing as more of the flavor is thus retained. Then suspending on strings in the air enables them to dry quicker and with less danger of rotting.

Apple Leather.—Stew apples in as little water as possible till perfectly soft; spread the sauce on plates, and dry in the sun, or a moderately heated oven.

Peaches, pears, plums, tomatoes, squashes, and pumpkins, may be dried in the same manner.

A Star on Fire.—On the night of May 12, last year, a gentleman at Faum, in Ireland, was observing the stars, when he suddenly detected a new one of unexpected brilliancy in the constellation known as the Ceronis Borealis. It so happened, it was afterward found, that an eminent astronomer at Athens had been examining the very same group of stars only three hours before this time, yet he had observed nothing unusual, nor was the star one to be overlooked, for when first seen it was of the second magnitude—that is, something less than the dog-star, Aldebaran, yet of a brilliance such as to render it a prominent object in the heavens. On May 14, it was observed in America; on the 15th, at Manchester, and on the following night, in consequence of tidings from Ireland, by Prof. Allen Miller and Mr. Higgins, near London.

By this time it had decreased from the second magnitude to nearer the fourth than the third, and by June 24, it had sunk to the tenth magnitude and so became inappreciable, save by a good telescope.

Its color also varied; at first, it presented a blue nebulous appearance, but after May 25, the blue tint disappeared; it passed through various shades of orange and yellow and is now of a dull white color. The decadence in brightness was not, however, uniform, for on August 24 a second outburst occurred, and its brilliance increased six fold; since the latter date, however, its light has gradually and uniformly diminished in intensity. Having found the star, Prof. Miller and Mr. Higgins proceeded to examine its chemical constitution by the spectrum, but were surprised to find it exhibiting two spectrals, the one superposed upon the other, one portion of one of them exhibiting the peculiar bright lines indicative of burning hydrogen; other two bright lines were not found to correspond with the spectrum of any known body. The second spectrum was that ordinarily produced by fixed stars. But Prof. Miller was not satisfied with ascertaining that the bright lines corresponded with those produced by burning hydrogen; an apparatus was so contrived as to throw the rays of that substance in a state of incandescence, on the spectrum of the star, when they were found to correspond in every particular with the bright lines originally noticed. This bright blazing star, then, contained hydrogen in a state of incandescence, how brought about we can not say; but the circumstance is highly suggestive. When the conflagration began is also unknown, for the distance of the star not being ascertained, we can not estimate how long the light has been traveling to our world; it may have been hundreds of years, but it can not have been less than three.

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Portraits in Verse.

II.

BY GEORGE W. BUNGAY.

HORACE GREELEY.

Heed not the slouched hat, nor the ill-fitting coat,
Nor trowsers too short to reach down to the boot;
Don't judge he is ill by his angular walk,
Nor think he's asleep if he nods in his talk.
When he speaks, the whole North leans forward to hear,
And even the South crooks its hand at its ear;
The paragraphs written in pot-hooks at night,
Are read by the million when morning breaks light.
With his hand on the pulse of the nation, he sits
In his sanctum—his practice is "giving it fits;"
When Humanity, prostrate and bleeding, appeals
With the red lips of wounds, sweet Charity heals.
With an arm that is strong, and a heart that is soft,
This philosopher lifts the down-trodden aloft.
Through his trumpet, The Tribune, he spoke and the State
Heard the thunder, and heeded the lesson of fate.
Since he bailed Jeff. Davis, who "ought to be dead,"
The masses have taken off Horace's head.*
The man whom the people delighted to trust
Has gone into parlor and hall in a "bust;" †
He's honest in purpose when doubtful the deed;
He's a cold-water man, and he scorns the *Weed;*
He is Goldsmith, with no great Johnson to praise;
And Franklin, whose broad paper kite draws the blaze.

WILLIAM CULLEN BRYANT.

More than threescore winters have snowed on his head,
And his cheeks have "white roses in place of the red;"
But his starry-gray eyes their beauty retain—
So vivid with lightning, so soft with the rain;
Well poised on his pinions, he soars with a wing
Which bears him above the round world's azure ring;
His poetry pulses through these hearts of ours
Like streams that flow softly through meadows of flowers.
A lover of Nature, he bows at her shrine,
Where the sweet wild grass and the wandering vine
Drape altars of rock in the shade of the hill.
Whose tapers of light are the sweet daffodils,
And the wild red roses, that swing day and night,
Are the censer-cups flaming with fragrance and light;
And the chorus of birds, so jubilant there,
With their madrigals charm the listening air.
Where woodland and waterfall, mountain, and sky,
And the rivers unroll in majesty by.
Our poet and patriot lifts up his eyes
From the starry flowers to the starry skies,
From nature below to nature above—
And sees the All-Father supreme in his love.

* A portrait given to his subscribers.

† Well executed in plaster of Paris.

Temperance Lecture.—A Dutchman's Temperance lecture: "I shall tell you how it vas. I put mine hand on mine head, and there vas von pig bain. Then I put mine hand on mine pody and there vas another. There vas very much bains in all mine pody. Then I put mine hand in mine pocket, and there vas noting. So I jined mit the Temperance. Now there vas no more bain in mine head. I put mine hand in mine pocket, and there vas twenty dollars. So I shall stay mit the Temperance."

A youngster came home after having a glorious time in the puddles, his face all aglow, and his rubber boots full of water. The punishment of staying in the house for the remainder of the day did not seem very hard at first; but as his little heart warmed up with the recollection of the triumphs of the morning, when he had waded deeper than any of his playmates desired to, he could bear the restraint no longer and went to his mother, saying: "Please mother, whip me, and let me go out again!"

Tom, a chit of four summers was anxious for a baby brother. His father, a minister had taught him his duty to pray for what he wanted. Going to his father with a very sober face, he said: "Papa, do you suppose if I pray to God right along that he would send me a baby brother?" "Perhaps so," said papa; "but why do you ask?" "Oh, because," replied he, "I have been praying off and on this good while and it don't seem to do any good."

A footman, proud of his grammar, ushered into the drawing-room a "Mr. Foot and the two Misses Feet."

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The Physiological Anatomy, Physiology, and Pathology of Man.

VI.

BY RUFUS KING BROWNE, M. D.,

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THE character of substance and mode of growth or formation of the tissues has already been sufficiently described in the five preceding sections of this series. It has been shown, too, that a certain aggregate quantity or number of these tissues, in the closest possible cohesion, everywhere infiltrated or bathed with a more or less viscid animal or organic substance, constituted the organs—an organ, of whatever character and function in the composite structure or organism, being nothing more or else, in fact, than the gross outward shape or contour of an indefinite number of the elements composing the various tissues of each organ. The forms or shapes of these organs greatly differ from each other, no two being alike in shape; but, nevertheless, they are all alike masses or aggregations of the elements of similar tissues. Thus, for example, the stomach and intestine is a long, thickish tube, very unlike the heart, or liver, or spleen, or pancreas, which are organs of quite another shape, consistency, and color; but alike all of these are made up, or, more precisely speaking, *are* each an aggregation of the elements of tissue we have described; and, as organs, their special function is simply that of each one of the minute elements, in unison with all the others and its fellows constituting the organ.

Thus, for example, the liver is constituted of a vast number of cells, and its function is to secrete bile; but this secretion is the exact product of the changes taking place in the cells composing it. So of the various glands of the organism—as the pancreas, the salivary and other glands in various parts of the system, but there are certain forms of structure which bear less the character of organs than of an apparatus, being hollow, and serving the purpose of furnishing channels of passage for currents of fluid.

These channels comprise: 1. The ducts of glands—channels of issue for the fluids formed in the secreting portion or tissue of the gland. 2. The lymphatic vessels receiving and carrying the lymph, connecting the links of the lymphatic chain. 3. The lacteal division of the lymphatics, running from the border of the intestines, and carrying the chylaqueous portion of the absorbed food lately digested. 4. The arteries, capillaries, and veins, which furnish a complete circuit of tubes for the regular circulation of the blood; and 5. The air tubes or cylindrical hollows for the inward and outward passage of the air. The formation of the tissue of the arteries and veins is similar to that of organs; but that of the capillaries and lymph vessels demands a special account. In general description the latter tubes are a double system or apparatus of channels or hollows between the varying surfaces of the other elements of tissue, but the capillaries are a portion of an endless circuit; while the lymphatics—although their contents, the lymph and, periodically, the chyle, issue into this circuit—begin or arise in the tissues.

Everywhere in the meshes of tissue, and intervening between the surfaces of their "units"—not in exact cohesion, and vacant of soft-solid elements—are large numbers of excessively irregular and minute fissures, or lacunæ, which open into each other. These are not vacuoles, but filled with fluid, the lymph. These fluid-filled, confluent lacunæ, found everywhere in the midst of textures nearly equally throughout the organism, are continuous, with a series of canals, without a proper tube, having no walls, their banks being the surface of the tissues in surrounding contact. They are continuous first, with imperfectly formed vessels of cylindrical form, and secondly, with perfect vessels similar to the veins, provided, like them, with walls and valves of fibrous tissue.

The lacteal portion of this system of hollows begins in a similar way.

The lymphatics begin everywhere in the midst of the various tissues of organs, in excessively minute but most irregularly shaped fissures, or lacunæ, which open into each other by still finer passages or pores. These exist in every least district of the organs. These hollows are bounded by the surface next them of the various elements of the tissues, and particularly of the connective tissue already described. In this portion of the lymphatic tissue there are no tubular walls, and no tubular continuous membrane bounding these spaces, as in the case of the other vessels. These spaces are continuous with somewhat larger hollows, on to a stage in which they form regular canals, whose banks consist of extremely attenuate, flattened cells, their rims united so closely as to seem a homogeneous membrane. These canals branch as

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the blood-vessels do; they finally assume the size of larger canals, with walls of the same character, separable, like the blood-vessels, from the tissues on their exterior side. In each part of the system they present a different arrangement or adjustment, but are of exactly the same anatomical constitution in each. They finally penetrate all parts of the system, interior and peripheral, and become two very large lymph vessels, which unite with the veins. The lymph vessels, therefore, are not vacuoles, but fluid-filled, minute lacunæ and canals, the contents of which do not circulate, but pursue a varying and sinuous course, to unite with the veins, whence their contents enter into the composition of the blood.

In whatever way these vessels arise, they all pass toward, and finally pass into, and emerge from, certain small glands in regular series, into which their contents pass, and from which, after certain retardation, they issue in a continuation of the vessels.

The function of these vessels, or channels, is to drain away all influx of fluid from the minute portion of the blood-vessels into the surrounding tissue, and to pass it into large blood-vessels by an indirect but not circuitous route. They have no open communication with the blood-vessels, but only from the transudation into the tissues of the fluid portion of the blood, which percolates through the irregular fissures of the connective tissue, and drifting through larger and larger cavities, and continuously into vessels within whose walls it forms a flow of lymph, the moving power being derived from the cardiac pressure on the blood column, though the course is not that of a circulation. In the series of glands a process of assimilation occurs, resulting in the formation of fibrine and "germinal masses," from the further changes in which the two sets of soft-solid bodies of the blood arise. Absorption is performed through these vessels, and the absorbed fluid coming from the tissues, is collected into streams flowing to and emptying in the blood-vessels. During the intervals of digestion the flow is so slow as hardly to be a current, but during the draining off or absorption of the digested food from the intestine, down which it is passing, those lymph vessels connected with the intestine are filled with a more quickly moving, milk-like fluid (the chyle) in mixture with the lymph, their previous contents.

The second set of hollows is the capillaries or minutest blood-vessels, an immense number of exceedingly fine tubes formed of a fine, homogeneous membrane, continuous with the arteries and veins. These vessels have a caliber just sufficient to admit of the unobstructed passage of blood globules in single file. Their walls are about the one twenty-five thousandth part of an inch thick, and although they have no visible pores in their sides, they are the channels through the sides of which the fluid portion of the blood passes, in certain quantities, into the tissue outside, to be drained off by the fissures and confluent lacunæ continuous with the lymph vessels. The capillaries constitute the major part of the texture of the organs. In some organs, as, for example, the liver, after being filled by artificial injection with certain substances, they seem to constitute nearly the entire bulk of the texture. They carry their contents in every possible direction from the arteries—of which they are excessively fine branchings—into the veins. If the trunks of two trees had one and the same rootlets, and one tree represented the artery and the other the vein, we should have an arrangement similar to the capillaries as continuous with the arteries and veins. The length of this intervening but continuous portion of the blood system is but the fraction of an inch, but their extent is, as said, equal to the extent of the greater part of the entire sum of tissues of the organism.

Every district, part, or territory of the tissues involves an artery, large or small, or vein. But the thick walls of these permit no transit through of their contained fluid, they themselves, in fact, being supplied with nutritive fluid through the sides of the capillaries running upon their walls. It is only the fluid in the capillaries, which is continually in a rapid current passing into them from the arteries, which transudes to supply what is needed to nourish the textures between the capillaries. It is only the capillaries ramifying in the texture of glands which yields to them the fluid material from the blood, the substances which, issuing from these glands, are called secretions—such as the bile, the saliva, the pancreatic, gastric, and other secreted juices. It is also only the capillaries of the kidneys, peculiarly arranged and great in number, from which transudes the fluid and saline substance in solution in the urinary excretion. It is only the capillaries through which transudes the fluid from the blood, which, passing into the stomach during the presence there of food, is the gastric or digestive fluid; and it is only through the capillaries into which the fluid portion of the food which has reached the intestine—except that drained off by the lacteals—can permeate into the blood-vessels and replenish the blood.

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h fresh substance. In this process of digest- absorption they permit to transude into m, as elsewhere and in other parts of the tem they permit fluid to pass *out* of them.

n presence of these facts we learn how essen- to all the processes of life, without excep- n, a full supply of blood is continually re- nished by a fresh infusion of new materials m without. And, by the foregoing, we are tructed that this replenishment is a two-fold ceeding—on the one side, of the fluid which nsuded through the capillaries to the tissues, ich is drained off, collected, and returned by ow through the lymph vessels; and on the ier side, of the solution of substances, the di- ted food, which transudes into the capillaries directly mingle with the mass of the blood. this combined proceeding, its completeness is olly dependent on the quantity of blood; the latter must furnish a sufficient quantity gastric juice to solve the food, and must be an adequately full and rapid tide to draw in solved matters from the intestine, where ey collect for absorption.

The next hollows we have named to be de- ibed are the ducts or channels of glands, and intestine.

The former serve merely the purpose of pas- ge for the products (secretions) of the gland sue, in the production of which they take no rt.

The latter great hollow extends from the outh, throughout the entire length of the unk, to the orifice at the lower part of the unk, whence the undigested part of the food its from the body. Its inner surface is that a thick mucous membrane, that is, a continu- s expanse, in tubular shape, of many ele- ents of organization, in the closest possible nion, coated with mucus. This tube differs reatly in structure, and the arrangement of its ructural elements in its different parts. In ie part, about on a level with the lower ribs, bulges out into the shape of a gourd. Here thickness is made up in part of exceedingly mi- ute finger-like depressions, from which issue uring digestion the drops of gastric juice, like a veat.

Continuing on in a narrow form, at an- her point its thickness is composed in part of ountless minute soft-solid elevations, similar to ie nap of velvet. Under the microscope these re seen to be thimble-shaped, their hollow side rned away from the surface of the intestine. heir upper surface consists of a large number cells in a single layer, side by side, beneath hich runs the finest capillaries, and the begin- ning spaces of the lymph vessels—here, the lac- teals.

It is at this portion of the intestine, or ali- mentary canal, that most of the digested food just passed down from the stomach is taken up or absorbed—that is, passes from the intestine into the body to nourish it with new matter. This process is due to the taking-up action of the two sets of vessels—the one taking up the fatty, and the other the fluidified albuminous or flesh-yielding portion of the food. This divis- ion of the alimentary canal also excretes or ex- udes a certain viscid juice, called the intestinal juice, which takes part in the further changes the starchy matters of the food must undergo before fitted for absorption. Through the lower divisions of this canal pass the matters not di- gested, to be extruded as refuse at its terminal orifice..

The fourth set of hollows are the air tubes of the lungs—and to these we must give a most precise and full description, as upon their in- tegrity and exemption from any species of de- rangement is dependent the health of the entire organism.

Almost every person has learned that the ribs, and flesh between them, running around front, behind, and right and left sides, form the chest walls. These inclose a large cavity, from the bottom of the neck to a level with the lower ribs. Within this great rounded cavity, or hol- low, hang the lungs, their outer surface against the inner surface of the chest walls.

The lung tissue consists of a large number of elastic fibers, nerve fibers, blood-vessels, and cells, arranged rim to rim. This tissue forms the walls of and tissue between a very large number of long tubes or cavities. These do not hang asunder, as the fingers of a glove, but everywhere between and surrounding them is a dense tissue. The surface of these tubular hollows consists of the minute, very thin cells we named, united border to border. These, the air, filling the hollows, comes in contact with. Next to them, away from the interior of the hollows, run a thick plexus of capillary blood- vessels, and everywhere between are the elastic fibers. These long cavities are so many branches of cavities of two much larger cylindrical tubes, which are divisions of one larger similar tube—the bronchial tube—running downward from the throat, at a level with the base of the tongue. These tubes are for containing air. Their movements are for, first, the inward pas- sage or inhalation of the air; and, second, for the outward passage or exhalation of the air.. This movement and this incoming of the air is

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mainly for the purpose of carrying out, mingled with the air on its return or outward passage, the effete, gaseous, buoyant, and volatile matters which constantly leave the contents of the blood-vessels, to pass through their sides (as the fluid does in other parts of the system), and the thin layer of cells, into the cavities they line. This effete matter is principally carbonic acid, animal and watery vapor. The regular passage of the fresh air inward causes it to mingle with a certain portion of the carbonic acid, and to be returned to the external atmosphere with it.

In addition to the four sets of hollows we have described—namely, the lymph (and chyle) vessels, the capillaries, the ducts of glands, and the air tubes, there are in various parts of the system groups of minute tubes—of thimble shape, extending into the tissues of organs—called follicles. They exist in great numbers in the intestinal canal, and from them issue the mucus or other viscid substances, in small quantities, for the regular uses of the system. So, also, the fluid, saline and other soluble substances from the blood, passing through the kidneys, drain away through two long tubes opening into the bladder, called ureters. The bladder is also a hollow organ, which holds—until a considerable quantity is collected in it—the urine. These follicles also exist in great numbers throughout the thickness of the tissue of the skin, and with them are directly connected long and tortuous convoluted tubes from which the sweat issues. It, like the urine, consists of animal and crystalline matters held in solution, but which adheres to the skin as a coating when the water has evaporated.

With the process of absorption must come an account of those processes which, preceding it, furnish the matter which has passed from a state of food into a condition capable of permeating a film of tissue—a membrane—which is absorption. For this purpose, it must be understood, it is not necessary for the hard or soft-solid particles of the food to pass into a fluid or homogeneous form, but only that its components should be in a state of solution—or suspension in a fluid, as in water or the gastric juice, or both combined, and thus pass with the menstruum through whatever membrane intervenes between it as digested, and the blood and lymph vessels of the intestine.

All alimentary substances are divided into two classes. The one contains albumen, fibrine, and caseine, and are found in both plants and animals. This class is distinguished by involving about ten per cent. of nitrogen, or just about the same amount of it as dried flesh an blood; hence the term nitrogenous food, or plastic elements of nutrition, or "flesh formers," because they take part in the replacing, as it occurs, the waste or wear of the textures. The white of egg offers the materials of this class in its albumen, as cheese does in caseine from milk. But they are not confined to substances of animal origin, for the fibrine abounding in beef is largely found in wheat flour; the albumen of egg may be extracted from cabbage, and the exact equivalent for nutrition of the caseine of milk and cheese is present in still larger quantity in beans and peas. All of them are first derived from plants, for herbivorous animals seek them out from vegetable food and embody them in their organisms.

The carnivora feed on the flesh of herbivora, which yields to them the materials for their flesh.

The second division of foods consists of starch, sugar gums, and fat, which contain no nitrogen and can not build up animal organs, but replenish its flowing substances. These foods, after softening and disintegration by cooking, pass through the mouth and into the stomach, where they undergo the action of certain fluids which digest them. These fluids are the secretions from the alimentary canal and the glands contiguous, which issue into that canal where the food is. This process results in what we have already described. The food is now absorbed, or permeates the membrane between it and the interior of the blood-vessels—which are: first, a cellular membrane lining the interior surface of the intestine; and, second, the capillary wall—and mingles with the blood. The absorbed fluid is therefore the gastric juice, holding as a menstruum the particles of food it has reduced to a flowing stage—a condition fit to permeate with itself the cellular membranes against which it rests.

Part of it permeates to the lymph vessels—which, engaged in this process, are the lacteals—and part of it into the capillaries, to mingle at once with blood. From this process arises the constant influx of fluid into the blood, replenishing it and augmenting its volume, and the constant transudation of fluid from the blood-vessels, *i. e.*, the capillaries, into the tissues, through which they run to percolate into the lymph vessels—the one to replenish the blood, the other to repair the wear of the organized textures.

The most remarkable hollow organ of the entire organism is the heart. It consists almost entirely of muscular fibers, which are incessantly during life in the act of contraction, or

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of returning to an uncontracted state—two alternate movements. Its contractions forcibly expel the blood by the force of the pressure it exerts upon that fluid while in its hollows. These are the heart-beats or movements, and with ever so short a cessation of these the processes of the organism come instantly to an end. The heart is simply a part of the arterial system, just as the stomach, though it performs special actions, is part of the alimentary canal. The impulse it gives to the blood is continued by the arteries, and the two sets of movements constitute the circulatory force. It is, in fact, this propelling or impulsive circulatory force which is the cause of the transudation of fluids from the capillaries, to be taken up and drained back into the blood by the lymph vessels. Of the fluids we have named as issuing from the several sets of hollows, some are immediately lost to the system—as the urine, sweat, etc., while some return to these same or other channels as the most available matter for its various processes—as the saliva, the gastric juice, the pancreatic, and, in great part, the biliary and intestinal secretions. Those which are lost are called excretions, and the others secretions, among which former must be reckoned the carbonic acid of the lungs, and a part—viz., the solid (coloring) matter—of the bile. We shall in our next number describe the morbid variations to which tissue-forming is liable in the process of growth, of tumors, etc. etc., and thereafter proceed to describe the nervous system, its formations and the variations in its normal functions to which it is liable in disease. The function of the hard tissues will be presented in order.

[TO BE CONTINUED.]

THE DOCTOR.—

A doctor well-skilled in the medical art,
'Mong others, for Europe resolved to depart,
And leave his domestic concerns.
"But what will become of the patients, the while?"
"Oh, fear not," a neighbor replied, with a smile,
"They will live—till the doctor returns!"

AT a party on Fifth Avenue, New York, the other evening, a beautiful young lady was complimented, by a gentleman, on the simplicity and good taste of her dress. "I am so glad you like it," the lady replied; "I made it all myself, and it cost just seven dollars." When our belles pride themselves upon the cheapness of their attire, instead of its expensiveness, we shall hear of fewer failures among our business men.

Letters to Ladies.

BY MRS. R. B. GLEASON, M. D.

SOCIETY.

LADIES—I trust you have all read "Women at Home," by Rev. O. B. Frothingham, in the June number of THE HERALD OF HEALTH. He has very clearly and truthfully shown that the women of this generation have not the same work that filled the hearts, heads, and hands of those of the past, and that very few have found a substitute for these "lost arts," or rather those which machinery has monopolized. Nevertheless, "over-work," "worn out with care," etc., are the most common complaints which we hear from chronic invalids, whether in or out of a "Cure."

What can the matter be? There must surely be something wrong somewhere. Now that spinning, weaving, washing, knitting, sewing, and embroidery, even, are all so largely done by machinery, beside sundry inventions to lighten domestic labor, and strong foreign hands for household service, how is it that the American women of this generation are so much more over-burdened than those of the past? The query reminds me of my father's story of an early friend, who, when he was first married, told his wife that he meant to be rich; but she said that she did not want to be rich—she only wanted to be comfortable. The husband got rich, but the wife never got comfortable. He rejoiced in his gain; but neither wealth nor "modern conveniences" could make *her* comfortable. Now to "pick up" and "pick at" the familiar faults which invite feminine infirmities, and prevent we women from being "comfortable," when it seems as if we ought to be, is the object of these letters.

We hear much about being weary with calls and worn out with company. The social element of our nature should be a source of strength and cheer, not of exhaustion and invalidism. If the latter, there must be some fault in the way in which we visit and are visited. If calls and company impose so heavy a tax that we can not meet it without becoming physically bankrupt, we had better rebel against the laws of society, and make an individual "Declaration of Independence" in this direction. By so doing, I fancy we may not only emancipate ourselves, but our friends, also, from a burdensome bondage. When *we* are at ease we are quite sure to make those about us so.

Have we company for the day? Show them the house and grounds, a place to rest, what we

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have in the way of books and pictures, and then visit with them when we have the time and strength that we wish to spare. More than this must necessarily be dull and uninteresting to our guests, for made talk has no cheer in it for any body. Many a woman seems to think she is conscientiously doing her Christian duty, when she is hurried with calls and harassed with company which she "don't care a fig for." She talks of her great responsibility as a wife and mother, and seems to think she meets it well, if she maintains the highest social position possible, and so well nigh sunders body and spirit in her effort to keep the family "up with the style of the times." Look over "the claims of society" upon you, and see how much you can curtail them, and still be ready for the reckoning of the Master. I do not mean, by saying this, that you must still be in keeping with the church to which you belong, or the social circle in which you move, but I mean, and still be up to the line of life laid out in that sermon of our Lord which says: "Ye are the salt of the earth," "the light of the world." Would not your salt have more savor, your light shine brighter, if you lessened your social cares? "Godliness with contentment is great gain," in many ways—in every way.

Within the two lids of that "best of books" are simple rules, which, in spirit, cover every relationship in life—at least all family and social claims.

For instance: Do you think you ought to show your hospitality by making a grand party? make yourself a world of work, upset all your family arrangements so that they will not get settled for weeks, that you may feed some hundreds with unwholesome food at unseasonable hours, and thus take all these friends from their own firesides, where they are needed, and where they would be tenfold more comfortable, to give them a bad night's rest, and several bad days afterward? Is this Christian hospitality? What says the Word? "When thou makest a feast, call the poor, the maimed, the lame, the blind—for they can not recompense thee; but thou shalt be recompensed at the resurrection of the just."

Do you like the recompense, or is the day of reward too far distant to suit your ideas of prompt payment?

As to the labor required, it is much easier to feed hungry people acceptably than to please the palates of those already fed to the full.

Do you want to extend Christian courtesy in the way of calls? Shall you hire a carriage, and start out with parasol, card-case, etc., to see those who are tired of calls and worn o... with company, and who would prefer seei... your card rather than yourself any time? O... will you be of those to whom Jesus will say "I was sick, and ye visited me; in prison, a... ye came unto me?" I do not mean by this th... you should find place in your own social circ... for every forlornity that you would wish t... help. But I do think there is some way t... keep bright and strong the links between yo... and those less favored, so that you can hel... them up easily, gracefully, a step higher—possibly even to your own place.

"The poor ye have always with you, and whensoever ye will ye may do them good." So, surely, we need not waste our food, our funds or our time, on those who do not need it. Work which needs to be done brings in return strength to the worker, while those who waste their energies have no such source of healthful invigoration. Hence we note often and with wonder how much those endure who have some good purpose to accomplish, while those grow weak and sickly who have no ennobling work to sustain and strengthen them.

Many years since we had among our invalid band a lady who was greatly admired for her native ability, her many and varied accomplishments. One day she said: "Do you think I shall ever get well?" To which I replied: "I think you might get well, but do not think you ever will." She looked surprised, and inquired: "Why?" "Because," I said, "you have no object in life commensurate with your abilities and a woman of your power of mind and body suffers more from this lack than one less richly endowed."

She looked very thoughtful for a moment, and then said: "You are right; I have no work which satisfies me, and, what is worse, I don't know where to find any which my friends would be willing for me to engage in." Then followed a frank confession on the utter barrenness of the life of this brilliant woman. Some years after I spent a few days in her city home, where paintings and statuary, carpets and upholstery, all united to please the eye. She had that native grace of manner which enabled her to charm all about her. In her dining-room she took private dancing lessons of a polite Frenchman, because some young nieces wanted Auntie to "help fill out the set." In the parlor she played and sang the grave or gay, just as her visitors desired. She helped the poor in private, and was seemingly an outside pillar to all the benevolent institutions in the city. With all this wealth, these accomplishments

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this admiration, both in public and in private life, was she happy?

Hear her own confession: "My life is entirely unsatisfactory. Seldom have I an hour to give to pursuits congenial to my taste or comforting to my heart. I am weary of this world of fashion in which I live. I am a slave to society. Once I fancied that some time I should grow strong enough to emancipate myself, but now I am so deeply enchained that death alone will set me free."

I said to her: "Cut loose from this routine of calls and company, and carve out for yourself a course of life such as your own conscience approves." To which she replied: "I have just looked over the list of my calling acquaintances, and have dropped fifty—all I dared to—and retained two hundred whom I have not courage to cut loose from."

"Of the two hundred retained how many have you any real interest in?" I inquired. "Not fifty of them do I care that for," said she, with an emphatic snap of those jeweled fingers. Doubtless this indifference was to a great extent mutual, but neither party had sufficient decision of character to break away from custom. What a wearisome, worthless way to waste Heaven's good gifts, time, and strength, which might bless so many! Washing, street-sweeping, rag-picking, better for both body and spirit, and of more service to the world, than living to call on those we don't care for, and who don't care for us. Of all living lies there seems less apology for these than for any others extant.

But you ask: "Must all calls be for charitable purposes?" Certainly not. Go to see your friends, if you have any thing to say to them, or do for them, or they for you, and then you will not go amiss. "Like begets like." If you want to see them, they do you. To every rule there are exceptions. Of course, there are unwelcome guests—insects which annoy, and must be borne or brushed off again and again. There are those now, as of old, who "spend their time to hear or to tell some new thing," and that not to any one's advantage. But if we are really anxious to be useful, we shall soon find ourselves members of a social circle which shall be an informal mutual aid society.

But often some of the richest elements of our nature for strength and cheer are buried beneath social shams. There should be an interchange of solace, strength, and cheer, with those about us; not waste, weakness, and weariness, in the vain effort to keep up an artiffcial interest, a show of gaiety and of social standing, which has no substantial support in either head or heart. I once said to an earnest Christian friend that I did not see how the religious world, which denounced dancing parties, could countenance these large assemblies at night, with refreshments at 10 o'clock and a grand supper at 12. That there was bad dressing, bad eating, late hours, etc., and no profitable conversation—nothing but small talk, and that to my mind they had not a redeeming feature, and I could not see that "shaking heel and toe" to the sound of music would make them materially better or worse. To which she replied: "Many women in these days have too much conscience to dance, not sense enough to talk, and so they eat and dress." Whether this criticism of an intelligent Baptist sister a dozen years ago applies to this age I will not say. The question is often asked, whether the children of Christian parents should be allowed to go to parties, theaters, or other gatherings, where late hours and sundry other sins tend to deteriorate their spiritual, mental, and physical qualities.

There is a strong element of common sense, of religious sense, in that old Jewish law which held parents responsible for the keeping of the statutes and ordinances of the Most High by their children, till the children had attained a certain age, and then, with public ceremony, the responsibility was transferred from parent to child, after which the latter must give account of himself to Jehovah. Prior to this the parent was answerable for all sins of omission or commission.

There are years (how many I can not say) when parents can hold their children to habits healthful for body and spirit, and make them happy in them. But, sooner or later, manhood and womanhood, or rather boyhood and girlhood, clamors for its own individual sovereignty. Sometimes, such has been the success of home training, and such the plasticity of the youthful nature, that there is no real change of government, so perfectly is the child and parent one. But there are plenty of perverse spirits, who prove for a time prodigal sons and prodigal daughters. If the home training has been a happy one, such will return in penitence before they have lived long on husks. Better than this, many will not wander far enough to waste much in riotous living—only to taste a little of this and that gilded pleasure, to find that it falls so far short of the higher joys home has given that they have no wish to wander further.

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Let us try to implant early a cheerful religious faith, so that children shall feel that the Father in heaven would debar them no real healthful pleasure; that he invites them, all along life's journey, to deny themselves this that he may give them something better. Here and there are paths which allure, but do not satisfy. Do not blame and denounce them, when they want to know by experience what *you* learned in the same way, and thus make them feel repelled and estranged, and so rush on into deeper dissipation to drown disappointment, or in the vain hope of realizing some ideal pleasure. No, rather help them everywhere to see your hand—yea, more, the heavenly Hand, beckoning them back to paths of simplicity, purity, and peace.

A story to illustrate: A young miss of simple habits and early hours is going out to her first large party, which is to gather when people ought to go to bed, have a grand dinner at the noon of night, and break up in the small hours. Her dress is white, with a tiny dot of blue, and trimmings to match—well suited to her brown hair, which curls so naturally in its rich abundance.

Her mother has her own delight that her once baby daughter has grown to be such a fine-looking young lady, and is half glad that she is to be gratified in seeing the gay world, and half sad that she is now to take her first sail on that social sea where so many shipwreck all healthful habits of body and spirit. When she has finished dressing, she says: "Mother, let us read our evening chapter before I go," and she turned to the fifty-fifth chapter of Isaiah, which was next in course, and read with tender tremulousness: "Ho! every one that thirsteth, come ye to the waters. Wherefore do ye spend money for that which is not bread? and your labor for that which satisfieth not?" These words of the Prophet, spoken to that chosen but wayward people of old, seemed equally a clear note of parental warning to a Christian child looking for pleasure in party life. "My thoughts are not your thoughts, neither are your ways my ways, saith the Lord. For as the heavens are higher than the earth, so are my ways higher than your ways, and my thoughts than your thoughts." As she finished reading, the mother said: "Whenever we wander for pleasure and find it not, the good Lord is saying: Return to me and I will give you rest, joy, and peace."

At the genteel hour for going, enveloped in winter wrappings, she gave the good-night kiss, each face bearing a smile and a tear. From the mother's heart went up the silent prayer that this dear lamb, for the first time outside the family fold at night, might be protected from harm; and when she found, as she must, the new field a dry and thirsty one, withered with envy and pride, that she may hearken to the voice which says: "Ho! every one that thirsteth." Christians, old or young, whose chief comfort is social gaiety, may well sing:

"Lord, what a wretched land is this,
Which yields us no supply!"

ELMIRA WATER CURE, *August*, 1867.

MAKING THE DESERT BLOSSOM.—The artesian wells in Algeria, long attempted without success, now number probably about one hundred, delivering five or six million *litres* of water per hour, and converting deserts into gardens wherever they have been bored. The work is going on, defrayed by tax upon the benefited population, and is destined to reclaim incalculable wastes. In a single district (Ouled Rir) stretching far south into the desert, and now containing thirty-five wells, two thousand new gardens have been formed and one hundred and fifty thousand date trees planted. Four military boring brigades, well provided with implements, and with growing skill and experience, are steadily pushing on the conquest of the desert, and with almost unerring success in every attempt.

HUMAN LIFE.—The total number of human beings on the earth is computed at three thousand millions, and they speak three thousand sixty-four known tongues.

The average duration of life is thirty-three and one-third years.

One-fourth die before they are seven years old, and one-half before the age of seventeen.

Out of one hundred persons only six reach the age of sixty years.

Out of five hundred persons only one attains the age of eighty. Sixty persons die every minute.

Tall men live longer than short ones, and married men longer than single ones.

Rich men live on the average forty-two years, but the poor only thirty years.

There is one drunkard to every seventy-four persons.

SENSATION.—"Now my little boys and girls," said a teacher, "I want you to be very still—so still that you can hear a pin drop." For a minute all was still, and a little boy shrieked, "Let her drop!"

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Natural Laws Moral, and Moral Laws Natural.

BY REV. HENRY WARD BEECHER.

THERE is no one thing that it is more important that men should understand than the truth that every part of their nature is acting under a moral government, whose laws, being broken, punish the transgressor. There inheres in all moral laws an inevitable penalty. Things which the law of the land and which public sentiment do not consider transgressions are yet factors of character. A man may do things which are not forbidden by his fellow-men, but which are forbidden by the way in which he is made. There is no law against a man's reading at untimely hours. Yes, there is. Where is the statute-book in which that law is written? In the ball and nerve of the eye. God wrote it there. Hunt everywhere in books for a written law of God that a man must not read by twilight, and you can not find it; but it is written in the eye, though you do not feel it. There is no law that a man must not eat indigestible food. Yes, there is. Was it proclaimed from Mount Sinai? No. Your stomach is your Mount Sinai for such laws as that. Transgress it and see. Is that which a man writes in a book more a law than that which God writes in his flesh, his bones, his nerves? All artificial and civil laws adapted to physical functions are but new expressions of natural laws. Are these natural laws less important because they are inevitably self-executing, self-punishing? Men seem to think it is a great thing to violate a law that is printed in a book, or a law that has a magistrate to enforce it; but a law that is printed in a man's body, and that has the whole power of nature and all the vigilance of God behind it, to execute it, they seem to think there is no great danger in violating. It is desirable that every young man should understand that there is no part of human conduct left outside of natural law—or, in other words, moral law.

Men divide laws into different classes. They say that there is a law which relates to the flesh, to the body, and a law which relates to the mind. But the body is not more natural than the mind. The mind is natural, and the law of the intellect is a natural law. The moral nature is natural, and the law of the moral feelings is a natural law. That law which harmonizes you with your fellow-man is a natural law. Is that a natural law which determines the fact that weights shall gravitate to the earth? Is that a natural law which governs the process of digestion? Is that a natural law which controls the various functions of the body? And is that not a natural law which determines men's thoughts and motives, and the results which are wrought out by one and another class of faculties in life? There is no more mischievous tendency possible than to bring up a generation of men with the impression that moral laws wait with their penalties till after men die and the judgment day comes. I repeat, that all natural laws are moral laws. You sin against God when you sin against your foot; you sin against God when you sin against your hand; you sin against God when you sin against your brain, or any part of yourself, as really—though perhaps not as seriously, not as heinously—as when you sin against your neighbor, or against the whole of society and its interests. When you violate a natural law, you violate a moral law that is wrapped up in it. There is no such distinction of names in the mind of God. They may be convenient in our weakness for describing different classes; but in their interior and substantial nature, all natural laws are moral laws, and all moral laws are natural laws.

It does not make any difference, when a child, one or two years old, puts its finger in the fire, that it says: "I did not know that fire would burn." Well, did it not burn? Its burning does not depend on your knowing it at all. It does burn, you found it out, and you will know it next time. Natural laws do not say to men: "Do you not know it? If you do not, I will not strike." Men seem to think that natural laws will certainly strike, but that moral laws will not. Yes, they will. A man says: "Moral laws do not, like natural laws, carry a penalty with them; I will risk the future." You are mistaken. Selfishness is a violation of natural law. People say it is natural to be selfish. It is not natural. It is common, it is universal, every body is selfish, and in that sense men use the term *natural;* but in another sense—viz., that which relates to its design, its organic tendency—selfishness is a violation of the natural law of the mind, and according to the structure of the mind it is punished.

Well, who sees it? Who knows any thing about it?

A man with a good strong constitution, forgetful of or not knowing natural law, eats in the morning an immoderate quantity. He is simply incommoded, and the unpleasant feeling soon passes away. At the noon meal he again over-eats, not instructed by the morning's ex-

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perience. He feels some pain, and he says: "I will learn wisdom from this." Perhaps for a day or two he does, but by-and-by he transgresses again, and this time the pain is greater than before, and this pain is part penalty for his violation of a law of his being. It is not the whole penalty; for every time an organ secretes pain it is because there has a greater or less amount of disintegration taken place. There is organic change in the very structure. There is a reparative force which may for a time be able to compensate; but the very compensating power is being exhausted so long as he continues to transgress, though it be but little from day to day. He is a good man—oh, yes; he pays his debts; he is a kind husband; he is an excellent brother, and father, and neighbor, and citizen; he is an able engineer; he does every thing well; but he is violating the law of digestion. He transgresses a little this week, and a little next week. His departure from temperate habits is slight. He never gives himself up to debauch. He never runs riot with dissipation. Every body says of him: "He has no vices; he is a good man; there is no better man." And yet, when he is thirty-five years old, men say of him: "He can not bear what he used to bear. The man is overworked." Yes, if you mean inside work, he is. They say: "He took on too much business; he had too much care." But there has been a minute process of transgression. He has been sinning against the law of digestion little by little. And there has been no record kept of his violation of law which reports itself to his eye. But by-and-by, after five, ten, or fifteen years, the man breaks down. Now comes the doctor, and says, or ought to say: "You have been a flagrant sinner for twenty years, and now God is coming to judgment with you; and this is a sign of God's judgment." You are a violator of natural law; and it makes no difference that the transgression of each day is so minute; for the sum of a thousand minute transgressions, like a myriad of snow-flakes, form an avalanche that carries the power of God. A snow-flake seems to be the sign of weakness, that comes wavering through the air, uncertain whether it will fall or fly; but let snow-flakes accumulate in vast heaps upon the mountain-side, and then when they break away you have a manifestation of the power of these minutiæ. And if it is so with transgressions against the law of the body, is it not so with transgressions against the law of the mind?

A long time before physiologists knew what ailed leaves, they *rusted*, as it is said, and mildewed. Microscopic examinations finally determined that leaves, by unequal temperatures and unequal hydrometric conditions, become enfeebled, and are full of pores of minute vegetables. The moment the leaf is so feeble that it has no repulsive power left these seeds root themselves in it. They grow in multitudes, like trees in a forest, on the surface of the diseased leaf, which has not strength to resist them. Now, take any one of those vegetables, which is so small that you can not see it, and a very powerful lens will magnify it so that you can see it, with its branches and roots. Though they are so minute that a million would hardly make a speck as large as the point of a pin, yet vegetation is destroyed by them. There are whole fields of grapes desolated this very summer by these minute fungi that afflict the vegetable kingdom. Weakness is the first condition; and this weakness is itself the result of disturbed natural functions.

Now it is so with transgressions—not great and heinous transgressions, but transgressions in small things; in thoughts that are continually going wrong; in feelings that are tending the wrong way; in faculties that are working out of tune and out of proportion; in passions that inject a malign nature through the whole mind. And when the sum of these transgressions breaks out into one flagrant act, it weakens the whole moral constitution, and renders it liable to attack by a million little faults, not one of which is large enough to take a name, but which are large enough, when there are a million of them on the leaf of a man's life, to destroy its texture and moral power.

It is to the last degree important that we should be brought up in this generation at last to understand that there is no thing that a man does which he does not do under the conditions of law; that there is no thought that a man thinks which is not thought under the conditions of law—and law, too, with its sanctions and prohibitions, with its rewards and penalties; so that no man can do wrong inside or outside and not render himself liable to the awards of law; and that the whole life is full of little violations or obediences which amount to the difference between being a happy man, a healthy man, and a good man, or an unhappy man, an unhealthy man, and a bad man.

You can not, then, sin in word, or thought, or motive, or feeling, without bringing yourself into that condition in which penalties in a greater or less degree will be inflicted upon you. Every man carries law and judgment in himself, and there is no such thing as his escaping

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m it. Therefore, be not deceived. *God is mocked.* The governor is, the judge is, the riff is, every body is, where it is the administion of an artificial penalty, at times; but en it is the administration of natural laws, d is not mocked. *Whatever a man sows, that ll he reap.*

You go out into your field and sow wheat. ery farmer in the neighborhood may get on fence and point his finger at you, and hiss you, and say of the crop which you are to p: "It shall be thistles;" but it will not be stles—it will be wheat; and they can not p themselves. On the other hand, you may e Canada thistles, and sow them, and declare t they shall come up wheat; but they will ne up Canada thistles. And the fact that the mers believed what they said in the one case, the fact that you are sincere in the other e, will make no difference.

Shall a man see that it is true in nature that ry seed produces its own kind, and then say: will sow to the flesh, and eat and drink, and be a good and pure man?" Shall a man : "I will gormandize, I will stuff myself, I l go to excess in eating, and yet have a conution that shall stand for many years?" No, will not. Moral conduct is as true to its ure as the seed is. No man ever does a ong thing that it does not produce its legitite results, both in this life and in the life to ne.

Revelations of a Retired Physician.

VI.

BY THEODORE THORNTON, M. D.

A PEEP BEHIND THE SCENES.

It was the custom, among the students of the edical school which I attended, to take the ivate ticket of some one of the professors, in dition to the matriculation ticket and the tick- admitting to their public lectures, paying tra for it, of course.

Such as complied with this "time-honored stom," by becoming the office-students of the ofessors, had the advantage of their private raries and their private explanations of the pics introduced in their public lectures, and so of private examinations, or "quizzes," as ey were sometimes called. But, in this reect, my Alma Mater does not differ from the her colleges of the land.

There was understood to be other "advanges," as the students in their short-sightedss called them, derived from complying with this custom. One of these was the drilling of these office-students in such departments of study as they would be sure to be questioned in when they came forward for the final examination. But another was the securing of a "friend at court."

How this "friend at court" was to serve the ends of his private students—or, rather, the single end of securing his diploma—was a question explained in this way: Each professor who stood in the relation to students alluded to, was not only bound by the implied obligation of a contract to "see them through," as the slang phrase ran, but his own reputation was staked on their passing a successful examination—for this would not only stamp him a successful teacher, but a lucky one, also, and the latter consideration was far more important, in the estimation of the candidates, than the former! If, at the commencement of a session, it could only be truthfully whispered round among the tyros that Prof. So-and-so rarely or never was known to have an office-student who failed to pass his examination for graduation, of course there was a rush to take his private ticket.

Although the policy of taking the ticket of one of these lucky professors was warmly and persistently urged upon me, my individuality of character was such that my sense of independence, supported by an inborn contempt for subterfuges and shams, prevented me from complying.

For the credit of human nature I rejoice to say that there was a respectable minority that sympathized with me in this course, among whom was a fellow-student from the "Old Dominion," of whom I shall have something to say in a future chapter, in further illustration of the evil workings of the rule referred to.

It was worthy of note, that nearly all of those students who took a leading or open interest in the discussion with the followers of Thomson, described in my last sketch, were such as had, like myself, thrown themselves upon their individuality, and declined to enter either of the charmed circles. Those who had done otherwise, if they did not stay away from the meeting, attended timidly or stealthily, for the most part. They had been warned beforehand, by their private guides, that it would not only be "unbecoming because unprofessional and undignified, to encourage a discussion with such a set of quacks as the steam doctors, but that it would, furthermore, serve to encourage them in their ignorance;" that "the proper mode would be to let them severely alone," etc.

How far the instinct of self-defense, not to

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say of self-preservation, controlled the advisers in this matter, it will never be certainly determined; but it was very like the exclusive spirit of conservatism to pursue that particular course, seeing that it was calculated to shut out a risk of any new light reaching the minds of the students.

Those office-students whose curiosity had proved too strong for their fear of censure, and who had therefore run the risk of attending the lyceum, were taken severely to task when it became known that they had done so, and lectured afresh upon "the want of professional dignity and decorum"—those bugaboos, the restraining influence of which, on children of a larger growth, has been one of the worst possible drawbacks to medical progress.

I have always, when recurring to the incident, been thankful that I had kept myself free from such a restraint upon the spirit of free inquiry as the system of office tutorage under notice, so as to attend that discussion, as I did, untrammeled. I would advise all students of medicine to pursue the same course. To do otherwise will be to shut out opportunities to learn truths which, as with the doctrine of Samuel Thomson, that cold is death and heat life, in my case, may prove *pivotal* to their professional lives.

But, having given a sufficient account of the reformatory influence of the discussion referred to—into which, the consecutive reader will remember, I was pressed against my will—upon my own career as an Old School practitioner I propose to trace its effect upon the medical brother who has already been mentioned as having done so "undignified" a thing as to countenance the discussion, although he was a "regular doctor."

It will be remembered by all who keep an eye to the question of woman's right to share the honors and emoluments of the medical profession—so ably maintained in the affirmative by my friend, Dr. Holbrook, in "The Editorial Department" of the last issue of THE HERALD OF HEALTH—that a heated contest was had recently, among the members of the American Institute of Homœopathy, as to the propriety of admitting females to membership, and that it was brought to a square final issue, by a delegate from Maryland proposing to ignore all distinctions whatever of either color or sex—which the professedly liberal Homœopaths voted down by a heavy majority.

It will be interesting to reveal the fact that the mover of that just and magnanimous amendment was the personage just referred to, and the same that was mentioned by his in in my last revelation, as the chairman o meeting convened for the maintenance o discussion, after the lyceum broke up in row therein described. That gentleman long afterward, embraced Homœopathy, thus became the first practitioner of the school in the city of Baltimore, where bravely bearing every thing in the way of tumely and scorn that could be heaped on him by the Allopaths, he has won his w triumphant and honorable as well as lucr success.

How much attendance upon that contro discussion with the Thomsonians had to do releasing his mind from the trammels of A pathy, we shall, of course, be left to gues less Dr. McManus himself should conse enlighten us on the question—for that is name of the brother to whom I have bee ferring. The probability that his mind previously, more or less an open one, in ance of the tyranny of the Old School, is cated by his presence at such a meeting. that the occasion furnished fresh food for gressive thought to his mind, as well as own, there can be little room to doubt.

Free discussion, in the spirit of the rule no subject should be deemed either too s or profound for human inquiry, is wh greatly needed where it is generally the thing to be found—in our medical col For the lack of it, thousands of "graduate ancient errors are swarmed out, every yea heads crammed full of sheer dogmas—t husks without kernels—by which true of the human organism and its needs, in health or disease, are utterly, and most hopelessly, ignored.

In future numbers, I shall afford my non fessional readers further peeps behind the lege scenes, in order that they may come to derstand how doctors are made in our m schools, as those machines are too generally to the detriment of true science and the s of the age.

TEACH a child that there is harm every thing, however innocent, and as soo it discovers the cheats it won't see sin any thing. That's the reason deacons' son dom turn out well, and preachers' daughters married through a window.

JONES complained of a bad smell a the post-office, and asked Brown what it m be. Brown didn't know, but suggested tha might be caused by the "dead letters."

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Thoughts on Education.

FOR COUNTRY READERS.

A RECENT Chinese ambassador to France, who had spent a day in walking about Paris, and was asked his impression of the city, is said to have replied: "My impression is that your schools are a trifle small, and your barracks a trifle large." If he had had an American city to sum up—in the Northern States, of course—he might have found the schools too small in comparison with the size of licensed bar-rooms, or the capacity of the ballot-box, but otherwise would have had little ground for a satire on popular government. But an official tour in the country districts might have suggested forcibly to Ping the contrast between their school-houses and their barns.

It can scarcely be denied that the human animal, in the place of his training, is as a rule much less comfortably and wholesomely lodged than the brute on which depends the tillage of the fields or the wealth of the dairy. If the school-house roof leaks, or door is unhinged, or windows riddled, there is a great chance that the farmer's boy will go much longer exposed to the weather than the farmer's horse in similar circumstances. A prudent cultivator, indeed, will build his stable with some reference to natural facilities for shelter; but who ever knew a school-house pitched with any concern for the points of the compass, or that might not be fairly imagined a "temple of the winds?" Bandied, like paupers, between contending parishes, these sheds at last are raised at the barren junction of two roads, or on the bleakest eminence of which the neighborhood boasts, or on any worthless or utterly unkindly spot—sun scorched or damp in summer, wind swept and shivering in winter. You may see them even in Massachusetts, conspicuous enough in the hilly counties, where for the most part, by a special grace, they have a picturesque coating of red paint. And all through the country at large complaints are heard of the neglect into which these structures are allowed to fall. In Pennsylvania, in various localities, they are "so totally unfit that the comfort, health, or convenience of the pupils attending them is scarcely consulted in a single respect;" "unfit for use, unsupplied with means of ventilation, unprovided with out-buildings;" "small, cold, dark, damp, ill-ventilated, and dreary-looking hovels;" in New York, "superlatively bad;" "in structure, in location, in furniture, a disgrace to an intelligent community;" in Ohio, the out-houses are "a disgrace to civilization;" and everywhere the district school-houses, to use an expressive Gallicism, "*laissent a desirer.*"

If the national profession of faith in public instruction, as almost the only guaranty of the stability of republican institutions, were as intelligently made as it is sound in principle, there would be no need of arguing that, "if there is one public building more pleasantly located, more comfortably arranged, better warmed, and more attractive in its general appearance, and more elevating in its influence than any other, that building should be the district school-house." And since the contrary appears to be the fact, it is worth while to consider why it is so, and how it may be remedied. Ample allowance made for thinly settled regions, and a consequent lack of public spirit, and difficulty of acting harmoniously, as well as for the necessity of planting the school-house in the most accessible locality (which will probably ever be as much a matter of dispute as the proper site for the post-office), there remains a considerable amount of indifference to be accounted for, in explaining which we shall partly relieve and partly inculpate those by whom it is manifested.

The first thing to be recognized in this discussion is, that the civilization of the country is behind that of the city. In politics it happens that there has never been so close an alliance between the country and our chief cities as now; but it must be admitted, though in seeming contradiction of our thesis, that the country was the last to be corrupted by the infection that slavery bred in our politics, the last to surrender or scoff at the foundation principles of popular government; that it listened most receptively to the preaching of better doctrine, marched solidly up to resist further encroachment on the national liberties, defeated the cities at the polls, and then compelled them to join in that final demonstration of patriotism and national virtue by which slavery was destroyed and the Union rescued. Nevertheless, it was in the cities that the reform began, and from them that emanated the intelligence which kept the country true, and directed it first to unity and then to victory; furnished the yeomanry with reasons for arming, and gave them leaders and organization for battle. And while the power of demagogues was more formidable and more conspicuous in the cities, it was quite as real in many parts of the country. Where communication was difficult, railroads unknown, the mails irregular and infrequent, there appeals to ignorance and prejudice were as successful as in the Sixth Ward of New York. Napoleon

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III. said at Auxerre that only among the peasantry of France did he breathe freely. Franklin Pierce would probably pay the same tribute to Coos County, N. H., and Messrs. Vallandigham and Bright to their rural haunts in Ohio and Indiana. The newspaper served in such places to darken the understanding, just as the railroad, under party management, has served to deprave as well as to enrich and enlighten the population through which it passes.

That is not a universal sentiment which wishes for the children a higher education and better advantages than the parents enjoyed. The poor are apt to possess it, especially when they both feel their poverty, and that there is no escape from it for themselves, but perceive that their children may become independent and respectable through the inexpensive medium of the public school. Those whose early life has been a struggle for bread, in which there was no time for the cultivation of their nobler faculties, and which was prolonged by the want of the common information which the State gives away, may often resolve that no child of theirs shall suffer a like experience, valuable as it may have been to them in the formation of character. But others of the class called self-made—who are fond of boasting that they owe nothing to book-learning, and forget that inherited wealth is no such excuse for inherited ignorance as acquired wealth may be for native ignorance—too frequently compel their sons and daughters to grow up with scarcely the rudiments of an education. *Sicut patribus sic nobis scientia.* This motto also finds adherents in occupations which are naturally transmissible or have long been transmitted from one generation to the next. Such in an eminent degree is that of farming; and the farmer is generally as unable to discern the utility of a thorough education for the boy who is to succeed him, as the mechanic what earthly good the study of Latin and Greek can do *his* boy, heir to his workbench and his tools. They may even fear lest too much learning may beget a distaste for the cherished vocation—a result for which they would be chiefly to blame, since their example implies that education is either unessential to or incompatible with the labor of their lives. This lack of intelligence, which, in our rural districts, is happily growing less every year, has retarded improvement in agricultural methods, and kept estates and their fixtures unchanged through long lines of descent. Houses in the country are exempt from the caprices to which those in the cities are exposed; and in all the early settled States there are homes of thirty, fifty, a hundred, and more years' standing—scarcely improved, many of them, and some, it is true, better than those of later construction. So that in material things there is a traditionary satisfaction with that which our ancestors found good enough.

Men who are accustomed to blow their noses with their fingers will hardly be likely to provide their own or any body else's children at school with pocket handkerchiefs. There is a direct relation between the home circle, its comforts, and its habits, and the school. The home was grandfather's or great-grandfather's, the school-house may be the same. If the one is tolerable, the other must be, and *a fortiori*. The rustic generation before the present, the affluent not excepted, was reared in ways that seem to us incredibly crude. I know of a family which was the first in a country neighborhood, in point of blood, wealth, and probably breeding—the head a "gentleman," with whom farming was not a necessity. Nevertheless the bed-chambers which were assigned to his daughters were almost unprotected from the winter cold; and, no matter what the season, the young ladies were expected to wash themselves, if at all, out of doors at the pump, without so much as a basin, or, I think I may add, a towel, at least until they got back to the house. Any body who will to-day take a walk through any State, however long founded or thickly settled, will find these "primitive" manners to be still in vogue. The disappointed traveler, whose practice is to take a full bath on rising, may be obliged to resort to the pump, or by good luck may obtain a basin, with or without a towel, outside of the house, on a bench or on the front-door steps; or, if his room is supplied with a pitcher, will be pretty sure to find the water too stinted even for his face; and worse if he have a companion. There will then be no slop-jar: but he need not fear to give scandal by emptying his bowl out of the window.

I have slept in rooms without a particle of crockery about them. Some have had no doors, but have opened directly into the parlor or sitting-room. To reach or to leave others it has been necessary to traverse rooms occupied by sleepers of both sexes. The beds have been of every degree of quality, the worst—worse even than those with a musty smell of bay—being the high feather beds into which one sinks to rise no more. Death lurks in the "best chamber" of a country house. So rarely used, so diligently secluded from the sun, so seldom aired, and never warmed, even in honor of the guest, what wonder that in these sacred

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ers hundreds have, amid chills and damp, d them down literally to die!

These dread receptacles figure largely, some- ies humorously, in the experience of those ose business it has been to lecture, for love money, away from the cities. The time for s is in the winter, and the "lecturer's pro- ss" could best be described by the pencil of Hogarth. The first stage is the overheated iving room" of the farm house. The second apt to be a more or less tedious ride in cold inclement weather. The hall when reached ll be oftenest found a church, a Quaker meet- -house, or a school-house. If either of the t two, it will be insufficiently heated as well dimly lighted; if the last, it will be heated excess, and shockingly ventilated—the speak- s table, perhaps, crowded with steaming, aking kerosene lamps, and the flue so defect- that all the gas from the stove is poured into packed apartment. If the lecturer faints, rhaps somebody will be thoughtful enough to en a window, of course at the victim's back. he escapes a cold, then, he has one more nce in the change of temperature which he st endure in riding or sleighing back to his ting place. Resting place! Would that it re so. After being toasted at the kitchen , his brain still burning from the exertion of aking, his feet like ice, the guest is escorted th blessings (why not with prayers?) to the est chamber." Once stroking the sheets is ough to detect the moisture that has settled on them.

"*Lasciate ogni speranza voi ch' entrate.*"

[Abandon hope whoever enters here.]

The guest, if wise, does not enter. He wraps mself up like a mummy in the blankets, keep- g on his clothing as a proper safeguard. If is not forewarned, or if he insists on pre- rving the customary connection of night- wn and sheets—these lines might never have en written! G.

A YOUNG lady who had been languish- g for several years in St. Louis under a mys- ious disease which baffled the skill of the st eminent physicians, it has been ascer- ned by a dentist, was dying from a slow ison distilled through the system by the amal- m with which two of her teeth had been led.

AN old lady reading an account of a stinguished old lawyer who was said to be the ader of the New York bar, exclaimed: "Poor ul! he had a dreadful set of children."

Hints for Improving the Voice and Strengthening the Lungs.

BY PROF. C. S. ROYCE.

IN this series of articles the attention of the reader has not been called directly, though it has been indirectly, to the subject of Articulation. We may have strong voices, we may have melodious voices, at least in the enunciation of the vocals, without being able to articulate distinctly. By some, Articulation is considered so important as to be placed first in the order of instruction. We have not placed it last in this series of articles, because we consider it of less importance than the other subjects treated, but because we believe the reader can better understand and apply the instruction, after having mastered the subjects that have received attention.

If we pronounce the words "Rope" and "Robe," we shall have pronounced two words that are alike in two of the three sounds, of which each is composed, and whose final sounds are nearly alike, the chief difference being that the final sound of *rope* is whispered, while the final sound of *robe* is spoken or "voiced." Since that is all the difference between the two words, it must be evident that it is of the utmost importance that this distinction should be clearly defined by the organs of speech.

The words Pin and Bin differ only in the initial sounds. The words Right, Write, or Rite, and Ride, Tin and Din, Rich and Ridge, Chin and Jin, or Gin, Rick and Rig, Cain and Gain, are just as nearly related. In each pair of words, the difference is that a sound in one word is whispered, while in the other, a sound, similarly placed, is spoken. In order that *speech may be understood*, it is necessary that this slight distinction shall be well marked. *Elegance of speech* demands the same thing. Not only should a speaker be understood by those near him, but he should be understood by *all* within reach of his voice, be they few or many. Our best speakers are thus understood. But this elegance and accuracy of articulation come, except in rare cases, only by careful training.

To secure this training, it is essential that we practice upon all the *articulated* sounds *singly*, as well as in combination. Many find it difficult to do this. We will try to render it comparatively easy.

Pronounce the word "Rope" several times with care, bringing out each sound fully. Now pronounce it as represented to your eye, thus: "Ro—pe," with a pause after the first two

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sounds, and then a finishing of the word by enunciating the final sound; remembering that the final *e* is silent. Repeat this until it is easy to do it. Now enunciate the last sound by itself; the sound represented by *p*.

Pronounce the word "Robe" several times, giving fullness and distinctiveness to each sound. Now separate it, thus: "Ro—be." Let the final sound be full and deep. Learn to prolong it without a drawl. Now practice upon the sound represented by *b* separately. Do not give up until you can enunciate it with accuracy of articulation, and depth and purity of tone. Take other words ending in the two sounds under consideration, as, Cup, Cub, Rip, Rib, and practice upon them in the same manner.

Now take words commencing with those sounds: as, Pay, Bay, Pie, Buy, Peach, Beach, and pronounce them in pairs, with great care, a few times, after which, enunciate the initial sounds in pairs, as *p*, *b*, giving the sounds as heard in the words, and not the names of the letters.

In like manner, practice upon the words and upon the sounds represented by the italicized letters in the following list:

Writ*e*,	Rid*e*,	*F*ile,	*V*ile,
Cu*t*,	Cu*d*,	Wi*th*e,	Wi*th*,
*T*in,	*D*in,	Wrea*th*,	Wrea*th*e,
*T*ime,	*D*ime,	*Th*igh,	*Th*y,
Ri*ch*,	Ri*dg*e,	*Th*in,	*Th*en,
Ba*tch*,	Ba*dg*e,	Hi*ss*,	Hi*s*,
*Ch*in,	*G*in,	Sau*ce*,	Sa*w*s,
*Ch*oose,	*J*ews,	*S*eal,	*Z*eal,
Ri*ck*,	Ri*g*,	*S*oar,	*Z*oar,
Ba*ck*,	Ba*g*,	Ru*sh*,	Rou*ge*,
*C*ain,	*G*ain,	Vi*c*ious,	Vi*s*ion,
*C*ull,	*G*ull,	*S*ure,	*J*our,*
Du*ff*,	Do*re*,	*Wh*en,	*W*en,†
Sa*fe*,	Sa*ve*,	*Wh*ich,	*W*itch.†
*F*ine,	*V*ine,		

This completes the list of cognate sounds in our language. The following have their cognates in other languages:

Fa*ll*,	*L*ull,	Si*ng*,	Ra*ng*,*
Ca*r*,	*R*oar,	*Y*ea,	*Y*acht,†
Su*m*,	*M*aim,	*H*at,	*H*igh.†
O*ne*,	*N*un,		

The practice here recommended will not only secure correct articulation, but it will give smoothness to the voice.

The student will now need to practice upon difficult combinations of sounds, as *bd* in Rob*'d*, Rub*b'd*, *vdst* in Lov*'dst*, etc.

For lists of words containing such combinations he is referred to his own ingenuity, or to school books.

* It is not used as an initial sound in our language.
† It is used only as an initial sound in our language.

In preparing for the readers of THE HERALD OF HEALTH the articles that have now been laid before them, those topics have been chosen that were thought to be most sure to "improve the voice and strengthen the lungs." I feel sure from the nature of things that, where they have been read and the instruction has been carried out, good must have been done; but in addition to this, I have had the pleasure of receiving the assurance, by letter, that such is the case.

The broad field of Elocution still lies before us untouched by these articles and ready for exploration. The culture of the voice is the basis upon which to build that great structure. To erect that structure is worth the study of a life-time. *Cultivate the powers of expression.* From their culture we may derive pleasure during nearly every waking hour of our lives, either in our conversation or in more public modes of using the voice. Let us not think for a moment, that because we do not expect to become a Webster we do not need elocution. We might as well think that because we do not expect to become Hanlons we do not need healthy, well-toned, flexible muscles. Few, if any, of us expect to display our muscular ability before audiences; yet none of us can afford to pass our lives without that discipline of our bodies that shall make them erect, well formed, and flexible. Few of us expect to thrill assembled thousands with our eloquence; yet none of us can afford to be without that discipline of our voices that shall render them strong, pure-toned, flexible and melodious.

Earnestly desiring to aid in a work of such importance, I bid the readers of THE HERALD, for the present, a kind farewell.

THE SPIDER.—

The spider wears a plain brown dress,
And she is a steady spinner;
To see her, quiet as a mouse,
Going about her silver house,
You would never, never, never guess
The way she gets her dinner!

She looks as if no thought of ill
In all her life had stirred her,
But while she moves with careful tread,
And while she spins her silken thread,
She is planning, planning, planning still
The way to do some murder!

—*Alice Cary.*

A CAREER of crime must come to a halt or a halter.

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THE EDITORIAL DEPARTMENT.



W YORK, SEPTEMBER, 1867.

THE PUBLISHERS *do not hold themselves as indors-very article which may appear in* THE HERALD. *still allow the largest liberty of expression, believing y so doing this magazine will prove to be more useful ceptable to its patrons.*

Exchanges are at liberty to copy from this magazine ving due credit to THE HERALD OF HEALTH AND AL OF PHYSICAL CULTURE.

OPICS OF THE MONTH.

BY M. L. HOLBROOK, M. D.

ORACE GREELEY MISTAKEN.—No one ts that Horace Greeley is an able and fear- dvocate of Temperance, nor of the honesty s convictions; so, when he makes such a ment as this, we have only to say we believe greatly mistaken: "The demand that all c in alcoholic beverages, as such, be prohib- by law, rests on the assumption that alcohol sentially poisonous. However disguised, ed, or concealed, the one element in these rs which causes intoxication is inevitably a o the physical well being of man. From premise, it by no means follows that it ld never be administered in sickness, since r poisons," etc., are used in disease. This thodox Temperance doctrine no doubt, but just here that nearly all Temperance men n the quicksands of a false medical philoso- and founder, leaving open a door just wide gh to admit the use, in a certain way, of the thing they would destroy. It would take mmense amount of argument to prove the e proposition. "However disguised, diluted, ncealed," alcohol "is inevitably a foe to the ical well being of man." This is his "pre-." How is it possible to admit this, and not that alcohol is valuable as a medicine? Can the foe to the physical well being of well , who are able to defend themselves against both from without and within, but their friend when laid on their backs feeble and help-less? What wonderful genius transforms it so strangely? Indeed, does not Mr. Greeley's first premise disprove his second? It "*is inevitably a foe to the physical well-being of man!*" Certainly, one or the other is false. If the first is true, the last can not be; if the last is true, then what can we say of the first? If alcohol is good for sick folks, a moderate use of it can not harm well ones. If it is dangerous for the healthy to tamper with it ever so cautiously, it is more so for those who are not well. It is right here that the Temperance Reform will fail. If it can not get above this, it will vibrate like a pendulum, backward and forward, sometimes up and some-times down, but never above high-tide level, on safe ground.

We are wofully deceived in this matter of alcohol being a medicine, and it is time the peo-ple took the question out of the doctors' hands into their own, if their boasted science does not teach them any better. We are not alone. On both sides of the water there is a growing sen-timent which eschews alcohol as a medicine, and with most favorable results. If it were not true that where no liquor is used for the sick—other circumstances being equal—the recoveries are most frequent, then we might doubt our conclusions; but facts are on the non-stimulat-ing side. The few medical men who do not use it for the sick—and their number is increasing yearly—do not find less success than others, but greater. Look at the Annual Report of the Longford Union Hospital, in Great Britain, presided over by S. Nichols, M. D. For fifteen years it has not used for the sick a pint of whisky or a bottle of wine. For the year end-ing October 1, 1866, there had been admitted 874 cases, many of them, as is always the case in large hospitals, very bad ones, and yet the deaths were only about two-thirds as great as in other hospitals of similar extent, and this, too, in all varieties of disease, and for a series of years. Those medical men who have wisely tried the non-stimulating plan of treating the sick have had no reason to abandon it. How could it be otherwise? We are slowly but surely learning a grand lesson. We act most wisely, by surrounding invalids with favor-able circumstances, and giving them over to Nature; we may sometimes help her; but, after all, our interference is usually full of dan-

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ger. A few centuries ago it was the practice for surgeons to pour boiling oil into wounds to cure them. A young surgeon, who afterward became noted, was engaged in treating the wounded after a battle according to this practice. "Alas!" thought he, as he used up the last of his oil, "these men who have not received treatment will die, for no more oil can be obtained." What was his surprise to find, next day, that they had done better than those treated with the oil. This incident revolutionized the surgical practice of that period in this particular. But strange it is that men can not learn more than one lesson at a time. To-day we pour a worse than boiling oil down the throats of the sick, the feeble, the fevered, and insist that if we do not do it they will die. How short-sighted is human nature! We are only on the threshold of learning. Like kittens, born blind, we have not got our eyes opened to the light of day. We predict that within twenty-five years medical practice will ignore the fact that it was ever so foolish as it is now, when it poisons and fevers the body and brain with alcohol to cure the sick. A great deal might be said upon this point, but we can not longer dwell upon the theme. All can carry out the picture in its details for themselves. All can see how sure it is that if alcohol is good for the sick, in this age, it is good for every body. Or if not so—if good for the sick—it will do much to cause an appetite for it, which will grow and, in multitudes of cases, carry the victim to a drunkard's grave.

THE SWEETEST STRAWBERRIES.—The following letter, from one of the most intelligent and enthusiastic fruit growers of the country, will be found particularly interesting to our readers:

TO THE EDITOR OF THE HERALD OF HEALTH —*Dear Sir:* In the July number of your journal you comment upon an article in Harpers' Weekly in reference to the use of sugar. Your views should be more generally brought before the public.

"Mankind, as a rule, seem disposed to doctor. In the first place, our food, be it ever so pure and good in its natural state, must be doctored with all manner of salt, sugars, spices, and condiments, to make it palatable, not to an unperverted, but a perverted taste. The consequence is the body must be doctored too, and so a continuous doctoring is kept up.

"This need not and should not be. I fully concur with you, that 'if sweet fruit were as abundant as it should be, sugar, even as a luxury, would be at a discount,' provided the public taste was educated up to that point. But as long as the fruit grower can sell ten times the amount of large, showy fruit—no matter how sour—at higher figures than he can small sorts of much superior quality, he will do (the general rule) that which replenishes his pocket best.

"As the world progresses, it is to be hoped that progress will also be made in this direction, and that your valuable journal will lead off in this as well as in other reforms.

"One reason why consumers of fruit do not make better selections in their purchases is that they are not posted as to varieties; even many planters of fruits depend altogether upon nurserymen to make their selections in filling orders, whose business it is (according to rule) to sell such stock as is easiest grown.

"It is therefore important that horticultural literature should no longer be at a discount among the masses, but at par, if not at a premium; for why should they continue ignorant with regard to fruit as food, which should be upon their tables at every meal, instead of many other articles now consumed?

"I have now growing nearly all kinds of fruit that this latitude produces, but will only refer to strawberries, which every family that owns a rod of land, or can rent it for two years, should have—they being more easily grown in all soils and situations than any other fruit.

"1. The Ladies' Pine is, among strawberries, what the Seckel is among pears, or the Delaware among grapes—the 'standard of excellence;' but, unfortunately, it is small, and not sufficiently productive for general cultivation.

"Among nearly one hundred known varieties, tested by myself, it has no equal, except a few of its seedlings, not yet disseminated.

"Hericart de Thury, British Queen, and Hooker's Seedling, are large and of first quality, but neither so productive as desirable. Triomph de Gand, and Russell's Prolific, size large, quality good, and in some soils quite productive. Agriculturist and Jucunda are of large size, but scarcely of second quality. Wilson's Albany has been thus far the most productive, but it requires too much sugar.

"New varieties are, however, brought to notice every year, and with the present enthusiasm among fruit growers to excel in producing new kinds, we may confidently look for something that will excel, in combined qualities, all varieties now before the public.

"MARIETTA, Penn. H. M. ENGLE."

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WOMAN OF THE OLDEN TIME.—Some in the month of February last we saw a e in one of our exchanges (The Portage ty Democrat) of the death of Mrs. Streator, 104 years. As we always have in such , we had a desire to know something of her ry, and wrote to her son to that effect, who s us the following reply. We are sure it interest and instruct our readers, so we the letter entire:

DR. HOLBROOK—*Dear Sir:* I received your r requesting me to give a history of my ier's habits of life. Her maiden name was abeth Kibby, she was born in 1763, and was youngest of a family of ten children. Meat, toes, and vegetables, with brown bread, the principal articles of food for breakfast dinner, and bread and milk for supper. was an article she liked as long as she ; tea she used, but coffee she thought in- her. It was customary to drink spirits n she was young, but I do not think she ever k much of it.

She was twelve years old when the Revolu- ary War commenced; and she, as well as rs, had to work on the farm as well as in house. I have heard her say that she was ing a team to plow at the time of the bat- of Bunker Hill, Since I can remember, work has been carding, spinning, weaving, ting, and sewing, beside raising a family of en children. She continued to weave until was about seventy years old, and the day was seventy-five she spun two days' work woolen yarn. She was always an early r, but her retiring to rest was governed by umstances. She oftener sat up till after 9 ock than she retired by that hour.

She had six brothers and three sisters; two ier brothers died before they arrived at mid- age—one died in the Revolutionary army, the other of sickness contracted in the ny. One of her brothers lived to be about hundred, and the rest lived to be old men. o of her sisters lived to be over ninety. e had an aunt—her father's sister—who died Orwell, Vt., some twenty-five years ago, aged e hundred and three years.

'My mother was a small woman, less than dium size. She had considerable muscular ength, was very active, had a large chest in portion to the rest of her body, and I guess e never practiced tight lacing. She had some kness during her life, and was remarkable for tting well soon after she began to recover. 'She never took much medicine, except such roots and herbs as could be gathered in the woods and garden. A good constitution and an active life were the means of her living so long, and I don't think that old age was the cause of her death. Four days before her death she appeared as likely to live as she had at any time for the last four years. Her lungs and digestive organs were sound.

"My mother had ten children that lived to have families, but there is one branch from which I have had no returns yet. I will set down the numbers as far as I have received them.

Number of children living, . .	7
Number of grandchildren, . . .	44
Number of great-grandchildren, .	98
Number of great-great-grandchildren,	33
Total, ...	182

"I believe, if the whole number could have been counted, it would have amounted to not far from two hundred.

"Now please excuse the blundering way in which I have written, for I am an old man and have almost done writing; but if what is written will be of any use to you in your profession, it will advance the pleasure of

"Yours respectfully,
"JOHN STREATOR.

"WINDHAM, O., *July*, 1867."

TO ALE DRINKERS.—There are few things that frighten those who drink ale, beer, or wine. It is a wise saying that "fools rush in where angels fear to tread." It may, however, serve a wise purpose to the young to publish the fact that fifty thousand pounds of narcotic poison, Cocculus Indicus, is imported into England yearly. This is enough to poison nearly or quite one hundred and fifty thousand tons of beer. Of course, Americans do likewise, for they rarely fail to import all the bad as well as good fashions from abroad.

TROUSSEAU.—Our medical exchanges are free in their sketches of the great medical philosopher whose recent death has already been announced. There is one fact connected with his life, which the medical journals do not enlarge upon, and has more interest and value than any other to the physician, and that is that he would never permit the administration of a dose of medicine in his own family. Then why should he have made a fortune drugging other peoples' families and teaching in medical colleges the use of drugs?

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CITY SCHOOLS.—One of the reporters of The New York Tribune has been visiting the schools of New York and writing a half-page article about them. He speaks of about a dozen of them. It is a blessing to know how to read, write, and cipher, but when attained through such instrumentalities it can be only a curse. The public schools of New York do more harm than good. Education is not sufficiently valuable to make its attainment in city schools any thing but murder, "slaughter of the innocents." But here is the description of

GRAMMAR SCHOOL NO. 11.

"Located on Seventh Street, near Eighth Avenue, Grammar School No. 11, built in 1853, has also several tales to tell. There is the old story of overcrowding and the absence of ventilation. Thirteen hundred children invest the Primary Department, 169 of whom are shut up in the gallery. Several vacuum ventilators may be found in the assembly room, but the eye would be keen indeed that discovered any thing of the sort in class rooms. One room, containing a class of 90, is particularly offensive, in consequence of the neighborhood of a water closet. The Girls' Grammar Department is inadequately ventilated, beside being overcrowded. In the basement there are 2 small rooms wherein 90 and 97 children are packed. Neither is fit for a stable. The larger was used as a gymnasium until the school overflowed and required additional class rooms, when the apparatus was put away.

"'Then you have gymnastic exercises,' we said.

"'Yes.'

"'Are all the scholars drilled in them?'

"'Oh, no; the Primary Department is too large for any thing of the sort, and the oldest pupils have so much to do that they can not spare the time.'

"The front basement room was simply awful, dark, and almost windowless. The teacher occupying this dangerous post did not hesitate to express her dissatisfaction; for ourselves, we longed to exhort those ninety-seven boys to mutiny, and put the local School Board in chains, for allowing such a nuisance to exist.

"'This crowding is abominable!' we exclaimed.

"'I suppose it is,' replied a teacher; 'but salaries depend upon the size of the school. The more pupils, the better we are paid.'

"Herein lies the secret of the evil. Instead of keeping down the number of scholars to the capacity of the building, a premium is paid on the smothering system. The Board of Education is, therefore, twice culpable."

OBSERVATIONS ON RED-BLOOD CORPUSCLES.—There can be no doubt that it is a valid instinct in man, which has always assigned a commanding, if not supreme importance, in the complex processes of physiology, to the blood, especially its red corpuscles. I have myself long been persuaded that all of the variations in the complex processes, which, on the one side, constitute health, and, on the other, disease—which two are only *divided* aspects of one and the same system, series, sum of the animal functions—will eventually be found to turn upon some change in the blood, at a given time, and under peculiar conditions, in either the rate of its progress, or the character of its main elements.

Accordingly, I have, during several years, sought, on many occasions, to ascertain the true anatomical character, and then deduce the career of the red-blood corpuscle.

It is to this latter point that I propose briefly to ask attention, conscious that my observations, even with the highest known powers of the microscope, though made very many times, have not, as yet, enabled me to affirm any thing with entire certainty; yet I shall venture briefly to present, also, the result of those observations.

The red-blood corpuscles are regarded as enduring anatomical elements, but I am confident that they are the least so of any anatomical form in the body. I am confident—though, as a *demonstration*, my observations would fail to establish that conviction in the mind of others—that they are perpetually solved in the liquid sanguiries, and as constantly renewed.

This view is, of course, equally opposed to the notion, on the one hand, that they are permanent anatomical forms, and, on the other, that they are destroyed in any special organ of the body.

The first striking feature of continued observation of these bodies, with *high* powers of the microscope, and without crushing them under the pressure of a covering glass, is that the *size* of each one of any given number of them varies between wide extremes, some being from three to four times the size of others. This great disparity is, of course, sufficiently palpable to arrest the attention of the observer under high powers.

The opinion generally received is, that the human red-blood corpuscle is either a cell with red contents, the nucleus of which has disappeared, or that it is a free nucleus of a cell, and which is not settled. Neither of these theories appear to me to accord with the result of care-

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l observations. It consists of matter of different degrees of density in different parts, being uch more nearly fluid in the interior than the utside. To this fact is attributable the dessed center, which is not, however, equally sible in all red corpuscles. It has been most enerally described as having a cell wall, after he fixed stereodox form of designation of all ich minute anatomical forms; and this, long fter the old and erroneous notion of a cell, as a ody, having a distinct structure, in three disnct parts, as cell "wall," "nucleus," and "nucleolus," has been abandoned by the higher order of observers with the microscope. When laced in some liquids, many of the corpuscles well up and disappear, but, in such cases, I ave not been able to detect any remaining subtance. Dr. Beale has shown, conclusively, that he existence of this cell wall must be abandoned s rather a theoretical notion than an ascertained r observed fact, although many observers have sserted the bursting of the capsule, and the escape of its contents. Guinea pig's blood crysallizes very rapidly in tetahedral crystals, and f the process be carefully watched, in a drop of lood which has been treated with a very little ater, and sometimes without the water, certain corpuscles will be seen to become angular, and four or eight prominent angles will be apparent, while others will exhibit the well known stellate appearance. Afterward the entire blood corpuscle will be seen to crystallize, and subsequently the crystals will be seen to coalesce and form larger crystals. Certainly no membrane, nor any thing resembling it, exists here.

The red-blood corpuscle from the same animal differs in character considerably. Some are darker and harder than others, some are so transparent as to be nearly, if not totally, invisible, and some are not more than one-fourth the size of others. These facts, which appear to have escaped the attention of observers, are only explicable on the supposition that different corpuscles are in different stages of *growth* and progress. Experiments with coloring matter strongly confirm this conclusion. The white corpuscles of the blood can be very readily tinged with a solution of carmine in glycerine. The granular or nucleated corpuscle of the embryo is also easily colored; while the majority of the red corpuscles can not be colored by the same means. Nevertheless, in certain instances, some of the smaller corpuscles in the capillaries can be readily colored. These, however, are very much smaller than the white corpuscles, and do not present their granular appearance. *They are, undoubtedly, young red corpuscles.* There are, however, other observed facts, which can lead to no other conclusion.

In winter the capillaries of the common frog contain numerous oval corpuscles not more than half the dimensions of the corpuscle when the same animal is active. In this case, at least, there can be no doubt as to the fact that the former are *young* corpuscles. In the lymph canals, there may always be seen, in the intervals of digestion, small corpuscles of a similar character, and these may also readily be stained.

These observations lead me to the conclusion that the red-blood corpuscle is either the separate form of the aggregations of rounded particles, apparently granular, forming the white corpuscle, or of the corpuscles I have designated, found in the lymph canals, and that it undergoes a series of changes by which it finally becomes converted into matter soluble in the plasma, and that they are thus continually dissolved and replaced. If blood be examined at a temperature of 100° Fahrenheit, the most peculiar movements occur in these white corpuscles; they will readily take up coloring matter, and even will *absorb milk granules.* These movements may continue for forty hours; showing that they do not die so quick as asserted.

At the same temperature, rounded fragments detach themselves from the red-blood corpuscles, and in the end nothing remain but minute granules *scattered* over the field. It was formerly considered that the matter which enters into the formation of the red-blood corpuscle, consisted of two substances, hematine, and globuline; but later and more exact researches tend to the conclusion that, in the natural condition, there is only one chemical substance readily decomposed. This has been termed:

1. Globuline;
2. Hemato-Globuline;
3. Hemato-Crystalline;
4. Hemo-Globuline;

all one substance, the crystallizable material referred to. These crystallize in different forms in man, the mouse, guinea pig, cat, etc. Stokes termed this *cruorine;* it may exist in a more or less oxidized condition. In venous blood part of this exists in its purple, or less oxidized condition, and this, in passing through the lungs, is re-oxidized and converted into the scarlet condition.

The peculiar nature of the white-blood corpuscles, which some writers and observers identify with the final stage of the lymph corpuscles, remains to be seen. R. K. B.

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Hygienic Home Treatment of Diseases.

BY E. P. MILLER, M. D.

Disease of the Supra-renal Capsules, or Addison's Disease.—The supra-renal capsules are small glandular bodies, situated as their name signifies, just above the kidneys, and slightly in front of them. It was formerly supposed that the function of these glands was in some way connected with that of the kidneys, but more recent investigations go to prove that although located in close proximity to and in contact with the kidneys, they have nothing whatever to do in common with those organs.

The capsules are small, flattened, and granular, differing in size and shape; the right one being triangular in form, and the left, semilunar—this difference is owing, no doubt, to the form of the organs against which they lie—they generally vary from an inch and a half to two inches in length, and are rather less in width, while in thickness they are only two or three lines, and their weight is from one to two drachms; in some persons they are so small as to be scarcely noticeable.

They are composed of an external or cortical substance, and an internal or medullary. The cortical forms the greater portion of the organ, is of a deep yellow color, and consists of narrow columnar or fibrous masses, about one seven-hundredth of an inch in diameter, arranged perpendicular to the surface. The medullary, occupies the central part of the organ, is soft and pulpy, of a dark brown color, and consists of nuclei and granular matter scattered through a net-work of minute veins.

These organs are plenteously supplied with blood-vessels and nerves, there being about twenty arterial trunks, and more than thirty plexuses of nerves, in each organ.

Of the function of the supra-renal capsules nothing has, as yet, been positively ascertained. Brown Sequard thought them absolutely essential to life, as all attempts at removing them from animals had proved fatal; but other physiologists have subsequently removed both capsules from some animals which have lived and seemed to flourish without them.

There is, at present, but one form of disease peculiar to these glands, and this was first observed and described by [illegible] Addison of Guy's Hospital, London, in [illegible] year 1855—hence it was called Addison's [illegible] ease.

More recently, other practitioners have qu[illegible] frequently had similar cases. Dr. J. E. Ta[illegible] observed seven cases in the course of [illegible] months' service in Bellevue Hospital. [illegible] who describe this disease have observed a pe[illegible] culiar bronzed appearance of the skin, and [illegible] this account it has received the name of [illegible] bronze skin disease.

CAUSES AND SYMPTOMS.

This disease has not thus far been traced to any well-ascertained cause. The most prominent symptom is anemia, accompanied by a bronze hue of the skin. This anemia is not associated with scrofula, hemorrhage, diarrhea, chlorosis, cancer, nor with diseases of the liver, spleen, or kidneys, but most commonly occurs in persons of large frame, with a strongly-marked tendency to fat.

It comes on in a slow, insidious manner, the earliest symptom being that of languor, which soon becomes extreme. The countenance becomes pale, the white of the eyes pearly, the general frame is flabby rather than wasted, the pulse full but soft, easily compressed, and jerky under the least excitement; the indisposition to exercise constantly increases with a feeling of faintness whenever it is attempted. The heart palpitates easily, and the entire surface of the body presents a blank, smooth, and waxy appearance; the lips, tongue, and gums seem bloodless, the appetite fails, and the breathing is labored if the slightest exertion is made. There will be swelling about the ankles, and the debility becomes so great that the patient can neither stand nor sit, and finally becomes unable to rise from the bed. As the disease progresses the mind wanders, and the sufferer falls into a prostrate and half-torpid condition, and at length expires. Yet, after a sickness of perhaps several months' duration, the size of the body, and the amount of adipose matter often present a striking contrast

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the failure and exhaustion so apparent in ery other respect.

The examinations after death from this dis-se have failed, in most cases, to discover terations in the structure of any organ ex-:pt the supra-renal capsules; the changes ere observed consist in the presence of a ɔftish, gray, translucent substance which ɔmetimes becomes liquified into a cream-like natter, and sometimes solidifies into a chalky nass.

TREATMENT.

This disease is generally regarded as incur-ible. Medicines have thus far proved unavail-ng and probably the best system of hygiene, nd the strictest regimen, could only serve to palliate the symptoms, and prolong life for a time.

No especial directions are needed except such as are requisite to the improvement of the general health; a plain diet, out-door life, well-ventilated sleeping rooms, a daily towel bath to keep the circulation active and skin clean, exercise moderate and adapted to the strength, cheerful company, and freedom from anxiety, are among the best directions that can be given in this disease. If there is suffering across the back, compresses may be applied at a temperature to suit the feelings of the patient. A warm foot bath two or three times a week, with plenty of friction, will be beneficial. Care should be taken that severe colds are not contracted, as these would tend to hasten the process of disorganization.

Thoughts.

KNOWLEDGE.—A man's health and strength are not determined by the bare circumstance of his knowledge that his blood is circulating, but by the energy with which we see him use his muscles and organs generally.

GENIUS.—Genius unexerted is no more genius than a bushel of acorns is a forest of oaks. There may be epics in men's brains as there are oaks in acorns, but the tree and book must come out before we can measure them.

CHEERFULNESS.—Without cheerfulness neither the intellect nor affections can expand to their full growth. Nothing is more fatal to a happy life than moroseness and gloom, unless it be the petty envyings and jealousies and suspicions, the toad-stools of the human heart, which sprout from the foul soil of indolent inactivity.

INDOLENT INVALIDS.—The indolent rich who fancy themselves weak and sick when they are only stagnant for want of some great purpose, would often become sprightly and well directly, did they but enter into some genial generous love which would impel occupation.

RECREATION AND FATIGUE.—There are few kinds of occupation that fatigue both body and mind at once; while one toils, the other reposes; when the one ceases to work, nature rules that the other shall be fittest to begin, and that is a rare case, indeed, where either body and mind is debarred all opportunity of healthful and useful occupation when its turn to work comes on.

HOME.—It may be questioned whether the sweetness of home can ever be truly enjoyed where the leading recreation does not take the shape of some intelligent and pretty pursuit, such as the study of a science, or the use of the pencil or microscope.

MISCHIEF.—Boys would not incessantly be in mischief and trouble, were they encouraged to study natural history and engage in rural sports, and girls would be more companionable and enjoy better health, if trained to fixed and natural habits of thoughts and discipline.

A WISE MAN.—Who is the man from whose society and conversation we derive soundest pleasure and instruction? Not he who, as it is facetiously said, has completed his education, but he who like a bee is daily wandering over the fields of thought. The knowledge of living and associating with a person who knows how to think, and is not afraid to think, is inestimable, and is nowhere more profoundly felt than in wedded life.

DARLING IDEA.—To have some secret, darling idea to which we can have recourse amid the noise and nonsense of the world, and which never fails to touch us in the most exalted manner, is an act of happiness misfortune can not deprive us of.

DELIGHT.—The delight of a single hour of recreation outweighs a whole life-time of mere frivolities.

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Answers to Correspondents' Notes and Queries.

BY A. L. WOOD, M. D.

About Bathing.—"Is it better to take a cold bath when the body is warm, or when it is cool? Is it injurious to take a cold bath when the body is perspiring?"

The common notion is that it is dangerous to take a cool or cold bath when the body is unusually warm or perspiring, but the truth of the case is that then is the best time to take such a bath. The reason is this: a stronger and quicker reaction can be secured when the circulation is strong to the surface and the skin warm. Such a bath should never be continued long enough, however, to produce a chill and prevent a ready and vigorous reaction. A cold bath should never be taken when the surface of the body is cool or chilly. Always avoid cold bathing when very much fatigued whether the body is warm, cool, or perspiring. Rest first.

Hoarseness and Catarrh.—"What is the cause of hoarseness and the remedy? What is the cause of an accumulation of mucus in the nose and the remedy? (I mean when the symptoms of hoarseness and mucus exist as chronic symptoms, and are not produced by an acute cold.)"

Hoarseness is the result of congestion, inflammation or thickening of some portion or all of the mucous membrane of the throat or nose. The accumulation of mucus in the nasal cavities, or catarrh, may be caused by irritating dust or vapors, snuff, tobacco, smelling salts, hot or stimulating drinks, exposure to cold and damp, etc. The treatment is much the same for both. Careful attention to diet both as regards quality and quantity is indispensable. The cause, whatever it may be, if still in operation, must be removed. The wet-sheet pack or Turkish Bath two or three times a week, with a daily hip and foot bath, will be found useful. As much exercise in the open air and sunshine as the patient can bear is necessary to effect a cure. In catarrh, frequent sniffing of cool water should be practiced.

Chronic Sick Headache.—"Can chronic sick headache be cured? What diet should one subject to its use?"

It can. To do this the cause, whatever it may be, must be sought out and removed. It is caused by too great a quantity or the wrong kinds of food, constipation of the bowels, torpidity of the liver, obstruction of the skin, et The diet should be plain, simple, easy of digestion, abstemious. Pure air, exercise, and sunshine are equally necessary.

Life Insurance.—"I wish to make a few inquiries in regard to the American Popular Life Insurance Company which has been advertised in THE HERALD. Do you think it is as good a Company to insure in as there is? How do their terms compare with other companies? Do you consider it reliable?"

If you have a good constitution which you have never injured by dissipation; if you are at present strong and healthy, have good habits and follow a healthful occupation; if you are descended from a healthy, long-lived ancestry, then this company is by all means the best and cheapest one to insure in. If you have made an apothecary shop or a beer barrel of your stomach and a tobacco box of your mouth; if you have bad habits, an unhealthful occupation or a sickly, short-lived ancestry, then this is not the company for you, for to such persons it is the dearest one there is. My confidence in its reliability is evinced by the fact that I have insured my own life in it.

How to Keep Cool.—Be sparing in your diet, which should consist principally of fruits, berries, and vegetables. Avoid every thing of a greasy nature; also, spices, condiments, and sweets. Drink nothing but water. Chew nothing but food; chew that well, but do not chew too much of it. Excess in eating is one of the principal causes of that lazy, listless, relaxed feeling experienced by so many persons in hot weather. Dress lightly, and change often. Wear nothing at night which is worn during the day. Bathe the entire body every morning with cool or cold water. Keep a clean conscience as well as clean body and clean clothing, and don't get excited. If uncomfortably warm at any time, immerse the hands, or feet, or both, in cold water for a short time, or let a stream of cold water run upon the wrists or ankles. This will cool the whole body in a short time.

Hand Mills and Bran.—"Does your hand mill separate the coarse bran from the flour? Is the coarse bran essential?"

Our hand mill does not separate the coarse bran from the flour, nor is it desirable to do so.

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Eating when Hungry.—"The Scientific American copies an article entitled "Eating without Hunger" from the July HERALD and adds the following remarks: "Many of the 'ills that flesh is heir to' are doubtless caused by over indulgence at the flesh-pots. But it is questionable whether the rule of 'eating when you are hungry,' is the best that can be adopted. If carried into practice, would it not lead to frequency, absurdity, and irregularity of meals? Would it be wise, even if you are hungry, to dine at bed-time, or breakfast whenever you happened to wake in the night? Does not experience prove that the golden rule of diet consists in regularity of hours, moderation in quantity, careful choice of edibles, complete mastication of the food?"

The writer is certainly correct in his conclusions in regard to the rule of "eating when you are hungry," but if he will take the trouble to read that article again, and read it a little more carefully than he did at first, he will perceive that there is no such rule mentioned in the article in question. The rule therein recommended is not to eat unless the sensation of hunger indicates a demand for food. Meals should only be taken at regular times, and then the sensation of hunger will recur at regular periods, unless there is some disturbance of the system which renders it unnecessary, in which case the meal should be omitted.

Physiology and Chemistry.—A subscriber wishes to know which are the best works published on Physiology and Chemistry. There are many good works upon both subjects. Perhaps as good as any are Dalton's Physiology, price (cloth), $5 25; sheep, $6 25; and Silliman's Chemistry, price, $2 50. They may be ordered through the office of THE HERALD OF HEALTH.

The Turkish Bath and Congestion.—"Does not the Turkish Bath tend to produce congestion of the head and lungs, etc., especially where there is a predisposition to it?"

If managed rightly the tendency of the Turkish Bath is to *prevent* congestion and to *relieve* it when it exists. It does this by promoting the circulation to the surface, and thus withdrawing the blood from the congested parts.

Hygienic Pies and Puddings.—"Which is preferable for a dyspeptic, hygienic pie or pudding?"

There are many grades of hygiene. It depends upon the grade. They *can* be made equally hygienic.

Pure and Impure Air.—"Is the common notion that there can be no difference detected between pure and impure air by analyzation, or any other means, true?"

This is a vulgar notion and nothing more, and is far from the truth as possible. The condensed air of a crowded room gives a deposit which, if allowed to remain undisturbed, forms a thick glutinous mass having a strong odor of animal matter. If examined by the microscope it will be seen in a short time to be converted into a vegetable growth, and this is followed by the production of animalculæ.

Asparagus.—"I would like to know your opinion concerning asparagus. Do you consider it a wholesome article of diet, and for what reason?"

Asparagus is a very healthful article of diet, for the reason that it is nutritious, easily digested, and contains no properties which are injurious to the human organism.

Health Cook Book.—"Please give information through THE HERALD where a health cook book (a good-sized standard volume) can be obtained, stating title and price."

"The Hydropathic Cook Book" is the only large work of the kind published. Price, $1 50. For sale by Miller, Wood & Co., 15 Laight Street, New York.

Milk and Buttermilk.—"You advise persons inclined to biliousness not to eat milk or sugar. Do you consider buttermilk as equally improper in such cases? Is a small quantity of milk admissible in making oat-meal pudding?"

It may be admissible, but water is better. Buttermilk is preferable to milk or sugar.

Worms in the Nose.—"I have just heard of 'worms' in noses. What are they, and how do they get there? Are they good for any thing, or should they be squeezed out?"

An answer to this query will be found in the May number of THE HERALD, page 248.

Salt for Invalids.—"Should salt be used as seasoning in rice or any other article of food prepared for invalids?"

No. Salt *should* not be used by either sick or well people in any form. It is never useful; always injurious.

Anonymous Querists.—Persons who desire to have their questions answered in THE HERALD should sign their names to their communications. Unless they do this, they need not expect any notice taken of them. Only questions of general interest will be answered.

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Publishers' Department.

Our Health Reformers.

CONTRIBUTORS TO THE PRESENT NUMBER.

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A. L. WOOD, M. D.,
And several anonymous ones.

Gleams of Sunshine will illume the face of our tens of thousands of readers when they turn the leaves of this number of The Herald of Health, for it abounds in much variety—matter for the grave and gay, matter thoughtful and pleasing, matter illustrative and experimental, matter earnestly expressed and intensely interesting, matter, if studied and practiced, that would serve to aid in lengthening out, with heightened joy and personal and worldly benefit, the needlessly short span of days usually allotted to the miserable human distillers and disseminators of liquid and solid poisons, whether of stronger or lesser venom.

Our gracefully written and charming sketches of the Brawnville Athletes, by Mr. Tyler, are continued in this number, in which many interesting scenes are very happily described and eloquent speeches reported.

The last of the series of the highly instructive and valuable papers on the "Deaf and Dumb" appear this month. We have found them so very attractive that we regret they are finished.

The "Humorous Glance at the Temperance Question," as well as the pen "Portraits," by George W. Bungay, are highly illustrative, and very happily speak for themselves. They will be read.

"Physiology of Man," by Prof. Rufus King Browne, is continued, and has lost none of its vastly attractive features. The subject is one of great interest to the general reader, and the writer's illustrations are aptly given, with a desire of making them clear to the popular mind.

"Letters to Ladies" are continually increasing in interest. "Society" is the topic of this paper, and the entertaining writer of it shows up its idiosyncracies with an able pen.

"Natural Laws Moral, and Moral Laws Natural," by Henry Ward Beecher, is an uncommonly excellent contribution, and must of itself claim the attention and undivided interest of our readers. Every successive paper of Mr. Beecher's seems better than the last.

Prof. Royce concludes his very popular and practically instructive series of papers entitled "Hints for Improving the Voice and Strengthening the Lungs" with this number. We regret the conclusion, and hope to hear from him soon on kindred topics.

"Thoughts on Education," an excellent suggestive article; "Revelations of a Retired Physician;" "Fruit as Food," a very practical and entertaining paper; "Home Treatment of Disease," "Answers to Notes and Queries," and many other articles, all combine to make this journal a very valuable monthly.

In the Editorial Department, among the "Topics of the Month," will be found many items of no little interest to the general reader. A letter from an old man, whose mother recently died aged over 104 years, is highly instructive.

Lincoln at Home.—It will be seen by reference to our List of Premiums for 1867, that for a Club of 10 new Subscribers and $20, each of these Subscribers will be entitled to a picture of "Lincoln at Home." This picture is a large steel engraving, which sells for $1, and in many places even as high as $2. There are very many engravings of Lincoln, some of which sell as high as $20 a copy, but in our opinion none of them have the same elements of popularity and are so characteristic of the man as this one. It was engraved from a photograph, and represents Lincoln and his little son looking over the pages of the Bible together, gathering strength and wisdom from the words therein. We are sure it will please every one of our subscribers to possess one, and we are happy to be able to make so liberal an offer with this end in view. It will be sent by mail prepaid.

Sewing Machines.—We are constantly getting Clubs of 30 and 40 names, and sending to the persons who get them up a Sewing Machine. One lady got a machine worth $72 for the clergyman's wife, by sending 40 names and $80. One young girl in New York got 60 subscribers, and we gave her two machines valued at $55 each, one of which she gave to a soldier's wife in Ohio, as a free gift. One soldier, who was scarred and maimed in defending the Union, got up in a few days a large Club, thereby obtaining a sewing machine for his wife, which will lighten her labors and increase her income. We have sent machines to Maine and Oregon, and to a large number of our friends elsewhere. The offer is still open to any who choose to make the exertion sufficient to get 30 subscribers.

The Orthopathic Philosopher.—See our advertising pages for a synopsis of the contents of the new book now in press entitled "The Tree of Life," by an old physician, Dr. Isaac Jennings, who has practiced for twenty-five years what he preaches. Send in your orders. Now is the time to lay out plans for an early fall canvass. This work and The Herald of Health would do more good and save more money to the people of this country than thousands spent otherwise with the advocates of "poison, drugs, and ruin."

Special Request.—Our friends will oblige us, and benefit others, by sending us the names and post-office address of all invalids with whom they are acquainted; also, all friends of Temperance, Health Reform and Physical Culture. Any one who will send us a list of 25 *bona fide* names of such persons shall receive free by mail a copy of Prof. Wilson's work of 75 pages on the "Turkish Bath."

Agents Wanted—We want agents, local and traveling, to canvass for The Herald of Health, Sexual Physiology, and Physical Perfection. Our agents are meeting with excellent success, and doing a great deal of good. We want one thousand more. All who desire to make money and do good at the same time will please address the Publishers for special terms to Agents.

Send Stamps.—Persons sending for circulars, or wishing answers to letters sent us, must inclose postage stamp to insure a reply. Three cents is but a small amount for one to pay, but when you pay that amount on three or four thousand letters it amounts to many dollars.

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Who Preaches the True Gospel of Health?—Says The Liberal Christian of recent date:

"The Herald of Health is a great deal more than a bright, snappy, saucy monthly, impatient of old practice, and sending all prescriptions done in doctors' Latin to the dogs. It is a clear-toned preacher of the New Gospel of Health, and, without quackery or charlatanry, is doing what it can to apply common sense to the art of getting well and keeping well."

Job Printing.—We are prepared to execute in neat, substantial styles, various kinds of Job Printing: such as Pamphlets, Circulars, Envelopes, Billheads, Letter-heads, Cards, Labels, Small Handbills, etc., at the same rates as in all first-class New York printing establishments. Stereotype work done to order.

☞ Our friends in the country who wish neat and accurate printing, can rely on first-class work, by sending plainly written and well-prepared manuscripts. For terms, send sample or copy of work, state quality of printing material to be used, and the number of copies wanted, inclosing a prepaid envelope for a reply.

Fruit Farms.—See advertisement of land for sale in Bricksburg, N. J. This place promises in a few years to be settled by fruit growers, who will make it a pleasant and beautiful place to live. Several hundred farms have been settled there this season. It is well laid out, and the climate is very healthful, so far as present indications go.

Write Plainly.—All letters should be directed very plainly, and all names should be carefully spelled. Sometimes people write so *they* can read the names easily, because familiar with them, but others can not do so. Mistakes may arise in this way. The address should also be well defined and written plainly.

The Pangymnastikon.—We can not afford the space necessary to keep a long advertisement of this valuable instrument in our journal, and therefore take this means of saying that we will send them for $10 and $15. See back numbers of this magazine, or send for a circular.

Filters.—Clean water for drinking and culinary purposes is very important. This can be had by using Kedzie's Filter. See price, etc., in another column. Orders should be sent to Miller, Wood & Co., No. 15 Laight Street, New York.

The March Number.—The March number of The Herald for 1867 is out of print. Persons having them to spare will be paid 20 cents in books by returning the same to us in good order.

Our New Book.—"The Philosophy of Human Beauty; or, Hints Toward Physical Perfection." This book will be sent for $1 75. It is most beautifully bound and profusely illustrated. Agents could sell hundreds of them.

City Subscribers.—Subscribers who reside in New York city or Canada, should add 12 cents extra to prepay postage, as the law requires that it be paid in advance.

Three numbers more will close this year's volume of The Herald of Health. Our friends will, we hope, be on hand early with their Clubs for 1868.

Any Book You Wish.—We will send any book published in New York, prepaid by mail, upon receipt of Publishers' prices.

Advertisements.

☞ Advertisements of an appropriate character will be inserted at the following rates: Short advertisements, 25 cents per line; thirteen lines, for three or more insertions without change, 20 per cent. discount; one-half column, $12; one column, $22; one page, $40. All advertisements must be received at this office by the 5th of the month preceding that on which they are to appear.

Adelphi Academy,

Nos. 338 & 340 ADELPHI STREET,

BROOKLYN, L. I.

Academic Department for Boys Alone.

Preparatory Department for Boys and Girls.

Eleven Grades.

Fifteen to Twenty Instructors in Constant Attendance.

GROWTH OF THE SCHOOL:

Number of pupils at the re-opening under the new regime, September, 1863	11
Whole number of pupils for 1863–4	23
Whole number of pupils for 1864–5	61
Whole number of pupils for 1865–6	156
Whole number of pupils for 1866–7	312

Next Session begins September 16, 1867.

Candidates for admission should apply on the 12th, 13th, or 14th of the month.

This School has won its way in four years to an unexampled prosperity, which is due largely to the careful system of Physical Training it has provided in connection with thorough mental instruction. This system is the so-called "Light Gymnastics" of Dr. Dio Lewis.

A new edifice, 53x121 feet, is in course of erection at the corner of Lafayette Avenue, Hall Street, and Van Buren Street, for the Academic Department. It is expected that a portion of this building will be ready for occupancy in November.

Pupils from a distance are accommodated with board in teachers' families.

Pupils from New York crossing Fulton Ferry should take the Fulton or Greene Avenue cars; those crossing South Ferry, the Atlantic Avenue cars. For further information address "Adelphi Academy," Brooklyn, L. I.

aug-tf LOCKWOOD & ELLINWOOD.

Anti-Tobacco Prize Tract.

The former offer of Prizes for Tracts on the EVILS OF TOBACCO by the Tract Society of the M. E. Church having failed to call out a Tract which the Committee of Adjudication thought worthy of acceptance as a Premium Tract, the Board of Managers now make the liberal offer of

TWO HUNDRED AND FIFTY DOLLARS

For the best approved Tract, not to exceed thirty-two pages, on the evils—physical, mental, moral, and social—resulting from the use of tobacco.

The MSS. must be sent, addressed to the subscriber, before January 1, 1868, when they will go to a Committee of Adjudication appointed by the Executive Committee of the Board.

DANIEL WISE,
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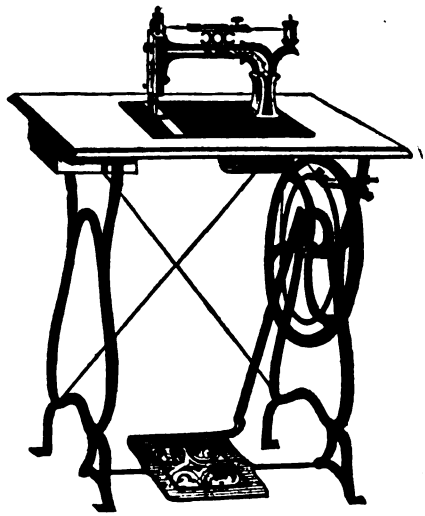
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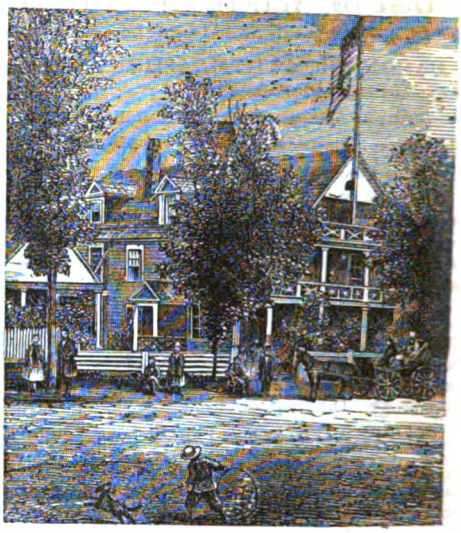
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THE HERALD OF HEALTH AND JOURNAL OF PHYSICAL CULTURE,

DEVOTED TO

HYGIENIC MEDICATION, BODILY DEVELOPMENT, AND THE LAWS OF LIFE.

OCTOBER, 1867.

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General Articles---Hygienic and Miscellaneous.

MINUTES

OF THE

Brawnville Athletic Club.

EDITED BY MOSES COIT TYLER.

VII.

JUDGE FAIRPLAY'S WAY OF PUTTING THINGS.

BRAWNVILLE, *July* 26, 1866.

"AN old man, renowned for wisdom through half a dozen villages, sat upon the porch of his humble cottage, in the early morning hour, to converse with his neighbors, should any of them that day seek his counsel. First came an athlete, low-browed, ruddy-cheeked, strong-armed, of mighty chest, and with a ponderous frame knit of muscle that moved and glistened like animated steel. 'O father, what more is left for me to do?' 'Find out that you have a mind.' And the athlete went his way. Then, from the communion of his books came a student, pale, emaciated, devoured by the voracity of his own brain and nerves, his eye luminous with poesy, his pure marble forehead towering like some noble dome of knowledge and thought. 'O father, what more is left for me to do?' 'Find out that you have a body.' And the student likewise went his way."

Such was the pretty parable which Judge Fairplay related to us the other night. He left us to draw forth its meaning for ourselves. And such is a fair specimen of his vivacious way of putting things—a way which I mean to exemplify by further specimens in the course of this paper.

But if I were called upon to state the one cause which, more than all things else, has contributed to the singular and surpassing success of our Athletic Club up to the present moment, I should fix upon this: The Club has, in a hundred ways, embodied and enforced the two verdicts of this sage of the half a dozen villages. It has taught the man of body to discover that he had a mind; it has taught the man of mind to discover that he had a body. Thus it has been a missionary of true harmony to many of our people; and it is now sustained and cherished in the grateful love of all who have experienced its silent benefactions. For indeed what benefaction can be greater than that of enabling human beings to come into full possession of themselves? Columbus made the world a whole world by giving to one half of it the knowledge of the other half. But our Club has done a still grander thing—it has revealed to many a man among us that he was but half a man, and has shown him how to become a whole one. Not more necessary is the western hemisphere to the eastern than is the body to the intellect, and the intellect to the body.

I have already noted down in these pages some of our methods of developing the body. But it was a sagacious and a fruitful thought of Judge Fairplay's to provide in the same institution a room consecrated to the development of

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the intellect. For the former purpose we have our Hall of Exercise; for the latter, we have our Library—the room in which our literary meetings are held, and the arena already of some glowing and stimulating discussions. Each department feeds and supports the other. The exercises clarify the brain, and act as a tonic to thought; the discussions create and preserve intelligent enthusiasm for the exercises. Thus we strive to deserve the title of an Athletic Club—forming athletic minds and muscles.

Our literary meetings are held regularly on Tuesday evenings. As yet, we have not had the least difficulty in securing a full attendance; and this for the simple reason that our meetings are *live* ones. This, in fact, is the secret of success in meetings of all sorts. For example: one often hears ministers scolding their people because they do not come out to those unique assemblages of the Protestant Church called prayer meetings. But why do not people come out to them? It is because in all such cases the meetings are formal, cold, and dead. But people can never be scolded into feeling an interest in dead things of any sort. Touch a real subject in a real way, and at once animation will stream in upon the meeting through the very roof; and the report thereof will go forth as an invitation more musical and enticing than the chimes of all the church bells in Christendom. If ministers and deacons would stop their whimpering, and speak no more hurdy-gurdy speeches, and pray no more hurdy-gurdy prayers, the only difficulty they would have about audiences would be where to put them. But who can be eager to hear fossils croaking unto fossils in one eternal groan about fossils? Jesus had no trouble to get audiences. Nay, his only trouble was to get away from them. He fled into deserts and mountain recesses, and into the solitudes of lake and river; and still the people pursued him, hurried after him by the everlasting hunger of the human heart for reality. So has it been always. So was it with Luther, Latimer, Knox, Whitefield, Wesley, and Theodore Parker. It was never difficult for them to get people to come to hear what they had to say, because they always had something real to say. So is it to-day with Spurgeon and Beecher. The clue to their success seems to be that they do not play upon the dried catgut of defunct topics; but even in their stupidest moments—and they have such—they invariably smite the living chords of living hearts before them.

The foregoing theory of success in public meetings is substantially what Judge Fairplay has told us a score of times. And he insists that the principle applies to meetings of all sorts. As to our weekly Club meetings, no member is exhorted—much less scolded—to come; every member is made to feel that he can not afford to stay away. It matters not what the topic for the evening may happen to be, the spirit of treating it is ever the same—naturalness, simplicity, the reduction of all theories to the test of experience, discouragement of bombast and oratorical display, perfect liberty to every variety of honest opinion.

No doubt we are very fortunate in having for our presiding officer so wise, temperate, genial, and versatile a man as Judge Fairplay; for he is to us both a stimulus and a restraint. Venerating the slightest lisping of truth, tolerant of every type of real thought and sentiment, hostile only to insincerity and impudence, he succeeds in evoking utterance from many a hesitant and blushing speaker; while he knows how, either with tingling irony or blistering sarcasm, to check any tendency to meaningless argumentation or to the vanities of pompous rhetoric.

We have two or three members who set up for metaphysicians; and nothing suits them better than to start some flock of impalpable problems, and with the whole Club for a reluctant audience, to display their ingenuity in word battles and dialectics. A few evenings since they got into one of these cloudy contests, and after filling the room with a thick shower of words for nearly half an hour, and testing severely the good nature of the company, the Judge with a sort of grave playfulness came to our rescue and ridiculed them into silence:

"Now, gentlemen, I think it is about time for some of us who are not metaphysicians to have a turn. Allow me to say that in such meetings as ours we must constantly try our discussions by a sternly practical test. It may be very amusing to you, gentlemen, to contend thus about the 'Me' and the 'Not Me,' about 'the nature of personal identity,' about 'the essence of the soul,' and so forth; but I can assure you that what is fun for you is very much like death for us. [Laughter and cheers.] For one, I have listened closely to your words for the last half hour, and at the end of that time, after you have discharged upon our suffering ears almost an infinity of abstract talk, I am strongly inclined to accept the definition of metaphysics once given by a sensible Scotch blacksmith: 'Two men are disputin' thegither. He that's listenin' dinna ken what he that's speakin' means, and he that's speakin' dinna ken what

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he sayin' himself. That's metaphysic.'" [Roars of laughter.]

This was said in so kindly a way and with so hearty a humor that even the metaphysicians joined in the shouts of mirth over their own extinguishment. They will not be likely to inflict another dose upon us without people grinning in their very faces at the recollection of the Scotchman's definition.

I think, however, that there is nothing else which proves so heavy a draft upon the forbearance of Judge Fairplay as any thing like bombast and sonorous ostentation in speech making. We have among us a few specimens of that pitiless race of mortals who set up for "orators"—a word, by the way, more maltreated than any other in the language of earth. These "orators" of ours are compounded, in about equal proportions, of impudence and wind, and upon all possible and impossible occasions they stand ready to scourge us with both qualities. Were it not for the heroic manner in which Judge Fairplay interferes for our protection, I do believe that our meetings would soon be utterly ruined—blown into a hundred atoms by these remorseless tornado gusts of eloquence.

The most incorrigible orator in our Club is an interesting young gentleman named Mr. Leonidas Climax, who holds the position of clerk in the village bank, and is fired with the noble ambition, as he once chastely expressed it, "of inscribing his name on that immortal scroll of fame on which are already written, with starry letters of imperishable sheen, by the diamond pens of recording cherubims and seraphims, the deathless names of Demosthenes and Cicero, of Chatham, Patrick Henry, D. Webster, and H. Clay!"—"and," as a sarcastic member kindly added, "George Francis Train!" It must be confessed that for this rather stupendous enterprise Mr. Leonidas Climax possesses a stock of personal qualities which will no doubt enable him to accomplish wonders: a thick head of hair and a thin crop of ideas, a small brain, a large mouth, and an enormous pair of lungs, beside a cool—nay, a sublime audacity, in bellowing forth his sonorous nonsense in any assemblage upon which it is possible for him to thrust himself. Mr. Leonidas Climax is not a sensitive person. Perhaps some would consider this a fortunate circumstance for him. Certainly, had he been any thing less than one of those Muscovites, of whom it is said that the only way to give them a sensation is to flay them alive, he would long since have wilted beneath the cannonading of hints, sneers, jests, and supplications with which a much suffering humanity has tried to temper the fatal paroxysms of his fluency. Like all great orators, Mr. Leonidas Climax has his own little peculiarities in speaking, which distinguish him from the common herd of declaimers by a fine flavor of originality. We have read of an orator who never rises to an eloquent passage without first vigorously scratching the left side of his nose; and of another who invariably signalizes his finest bursts of oratory by the bursting of his coat under both arms. Mr. Leonidas Climax, as has been already intimated, is the proprietor of a little peculiarity which is exclusively his own—namely, to "soar into the altitudes," as he would say, by dint of incessantly drinking from the water pitcher. It was in vain that, at the outset of his eloquent career among us, certain members took the liberty of pouring water into a tumbler and of placing it near him, as a gentle hint that if he must drink he should do so in a civilized manner. He is superior alike to gentle hints and to any vessel less heroic than the pitcher; so that the Club has been compelled to avenge itself upon the hydro-bibulous orator by voting an appropriation of twenty-five cents for the purchase of a pitcher for the use of Mr. Leonidas Climax alone. It was in vain that on one occasion a member anxiously inquired of him "whether he did not think his eloquence was already thin enough without mixing it with water." He benignantly answered: "Oh, I can take a joke gentlemen!" It was in vain that at another time one of our members asked him "if he considered that an orator was raised to the heights of eloquence on the principle of the hydraulic ram." With the most unruffled good humor he replied: "Go on, gentlemen; I trust I can take a joke." In the course of a tremendous speech he made at the Club but a few evenings since, and while frantically engaged as usual in spouting wind and imbibing water, a bit of paper was seen to pass up the table to the Chairman. At the end of the harangue, the Judge rose and with the utmost gravity read from the paper:

"Several members, unable their views to compare,
On a question of order appeal to the chair.
Though of words it be just to make such a slaughter,
Has a windmill the right to go thus by water?"

When the roars of laughter had ceased, the Judge roused them again by adding: "The Chair will give its reply to this appeal in the same manner as that in which it has been made

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'If a windmill can grind without ever a grist,
A windmill can surely do just what it list.'"

Mr. Leonidas Climax sat with arms complacently folded, and with the most provoking serenity of amiable feeling, merely replying: "You know, gentlemen, that I can take a joke." "Yes," said the Judge, "but I can assure the gentleman that to us all this is very far from being a joke at all."

"Well," Judge Fairplay said at the close of the meeting to a few of us who stood round him in conversation, "we must be philosophical about it. Every debating society that ever existed has had the same trial from two or three members afflicted with this sort of plethora. We must try to bear patiently what all others have to bear; and we must get as much fun out of these fellows as we can. But if our Club should ever perish, I fear its epitaph will be: 'Died, from excess of Leonidas Climax.' No, that won't do. Such an epitaph would be too gratifying to the personal vanity of the murderer. We must indicate the calamity in an impersonal way, thus: 'Died, from the effects of a gas explosion.'"

But our President is something more than a disciplinarian in our meetings; he is the awakener of much earnest thought on the entire subject of man's physical and intellectual life. In his quiet little speeches he is constantly dropping hints of wisdom wrapped up in allegory, items of statistical lore with wide-reaching moral, choice bits from his readings, reflections on books, on society, and especially on the philosophy of exercise. I rebuke myself for having been so remiss in preserving these casual utterances of our guide, philosopher, and friend; and am constantly promising myself that I will in the future do better things. Here, however, are a few of his sayings and quotations which I have embalmed in my note book:

SANITARY ATHEISM.

"Is there such a thing? Is it possible to hold too zealously the doctrine that health is a stream whose fountain is each man's own will and behavior? Human nature has the terrible kangaroo-gift of leaping—leaping, however, from one extreme to another. Has it not lately, in some instances, leaped from the one extreme of regarding health and disease as wholly God's sending, to the other extreme of regarding health and disease as wholly an affair of human control? May not the sanitary reformer, who has escaped from the hideous superstition of the old hymn

'Diseases are thy servants, Lord;
They come at thy command,'

have fallen into the equally hideous fallacy of ignoring God altogether in his computations? Perhaps each of us might say to the other in the words of King John:

'Why do you bend such solemn brows on me?
Think you I hold the shears of destiny?
Have I commandment on the pulse of life?'"

REASON.

"What was it the last speaker said about reason? That reason is a thing not to be trusted? Nay, my friends, take this advice—flee from *cant* faster than you would from a she-bear or a pack of wolves. The moment you attempt to justify that statement about reason, you begin to use the very organ which you decry—you ask reason to prove that whatever reason does prove is worthless. When a young man, I found in the Preface to Sir William Drummond's Academical Questions a paragraph which I then thought one of the noblest in the English language—and I think so still: 'Prejudice may be trusted to guard the outworks for a short space of time, while Reason slumbers in the citadel; but if the latter sinks into lethargy, the former will quickly erect a standard for herself. Philosophy, wisdom, liberty, support each other; he who will not reason is a bigot, he who can not is a fool, and he who dares not is a slave.'"

ANCIENT IDEAS OF PHYSICAL CULTURE.

"The golden age of physical culture has already shone upon this world, even as I trust that golden age is yet to dawn again. There has been a time when, according to Æschenberg, 'bodily exercises were viewed by the Romans as a more essential object in education than the study of literature and science;' there has been a time when, if we may believe all the great writers of the period, more attention was given by the Grecians to physical culture than to all other departments of education combined—thus presenting to us the historical anomaly of a race transcending all others in intellectual power and versatility, the mere fragments of whose literature are the most brilliant and precious legacy of the past to the present, likewise transcending all other races in devotion to bodily training; there has been a time when men did not call that education which crushes the body, while it crams the mind; which deposits facts in the brain, and infirmity in the whole system; which by a horrible conjunction mingles the seeds of knowledge and the seeds of disease. There has been a time when men acted on the belief that a cultivated mind is a

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priceless picture, worthy of being set in a noble frame, and that the attempt to carry over the waves of life a fine mental endowment in a diseased, fragile, nervous, debilitated, and neglected body, is as irrational as would be the attempt to float a handful of diamonds over the ocean in a sieve. There has been a time when the poets, statesmen, artists, orators, and scholars of the age were men of magnificent athletic proportions; were strong heads on strong shoulders; were royal bodies acting in honorable vassalage to still more royal minds. There has been a time when men whom we call heathens believed it to be their religious duty to reverence and to obey those laws which the Creator has written upon our bodily structures; who deemed physical illness in some degree akin to moral delinquency."

THE POET THOMPSON.

"A member has requested me to repeat once more those lines which I gave you the other evening from the author of 'The Seasons' and 'The Castle of Indolence.' I thought them familiar to every one. Certainly they ought to be known to every gymnast.

'Ah, what avail the highest gifts of Heaven,
When drooping health and spirits go amiss?
How tasteless then whatever can be given;
Health is the vital principle of bliss—
And exercise of health!'"

FUNDAMENTAL.

"In one of our discussions I used this expression: 'The fundamental truths of physical culture.' I have since been asked to state what those truths are. Let us take one at a time. Here is one for to-night: Health is so great, so incomparable a blessing that it is worth all the trouble necessary to keep it if we have it, or to get it if we have it not."

THE ANTIQUITY OF GYMNASTICS.

"What art can be so ancient as that of Gymnastics? Indeed, we begin gymnastics before we do volition or consciousness. Certainly we use our bodies long before we do our minds. The cradle is the primitive gymnasium; and the mother's arms, and the toy rattle, and the rounds of the nursery chairs are the first apparatus; and the stretching and squirming of the babe, as he lies in his little bed, or as he measures his length upon the carpet, in his first desperate efforts at locomotion, are but the expressions of a great edict of nature, proclaiming the absolute necessity of physical exercise."

SPARTAN GOOD SENSE.

"Those old iron-fisted Spartans knew a thing or two. They had a wonderful genius for hitting the nail on the head. Look at this. Every Spartan citizen must be a soldier; but no one was fit for a soldier unless he were healthy. Therefore, if a puny child came into the world, they voted him not worth raising, and just huddled the poor brat off to the mountains as food for the crows. That was a little harsh to be sure. Yet it is probable that a puny child was seldom born among them; for knowing that a race of heroes could not spring from a race of sickly mothers, they arranged that the mothers should not be sickly. Here is what their lawgivers said: 'Female slaves are good enough to stay at home and spin; but who can expect a splendid offspring, the appropriate gift of a free Spartan woman to her country, from mothers brought up in such occupations?' Well, if the ladies were not to stay at home and spin, what upon earth were they to do? Why, go to the gymnasium, of course! Yes, there's the rub. How can you get them to go? The Spartans did it easily. Did they fine them for not going? No. Did they threaten to hang them or shoot them? No. Did they offer them beautiful dresses if they would go? No. They appealed to a stronger motive than avarice, or fear, or vanity. They ordained that no Spartan girl could get married until she had demonstrated her proficiency in gymnastics! So the thing was done, and no more bother about it. Ah, if our American Congress would but take the hint, what a rush of Yankee girls there would be to the gymnasiums!"

[TO BE CONTINUED.]

TYPOGRAPHICAL ERRORS.—A New York writer thus sketches a few typographical errors:

"One day last year Mr. Greeley wrote an editorial entitled 'William H. Seward.' Imagine his rage when it came to him in proof headed 'Richard the Third!' Yet any body familiar with his chirography, if his inky jerks can be so designated, will readily see not only how such a mistake could be made, but how it probably would be. Again, he wrote about 'three men in buckram,' and the prosaic type-setter got it 'three men in a back room,' and this notwithstanding the fact that two compositors of sagacity and experience are hired at an extra salary because they can read his copy. James F. Babcock wrote: 'Is there balm in Gilead?' and read next morning, to his consternation, 'Is there no barn in Guilford?' Mr. Crawford recently sent to India the message: 'American news favors the holders;' when received it read thus: 'American news savors of soldiers.'"

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The Conditions of Parentage.

BY PROF. J. BURNS.

A TRUE parentage, a real father and mother, is the primary right of every human being. Our first consideration, therefore, in investigating the claims of the young, is to define a few of those conditions upon which true parentage depend. Any man and woman who may come together in wedlock, can not truly perform the important duties of parents or produce perfect offspring. Many requisites, individual and relative, are necessary to secure this great object. In the first place, the couple require to be healthy, harmonious, and well balanced individually. Secondly, their union should produce ameliorative and congenial influences upon each. And thirdly, their surroundings should be of such a nature as to promote the great purposes of which they are the instruments. In my professional experience I have had many painful instances of the necessity for such conditions being observed to the very letter in the propagation of the human race.

As to the influence of the father in regard to his habits—not speaking of organic harmony—I have in my mind's eye the cases of several children who are idiotic, even to the lowest plane of animalism, because of the drunkenness of their fathers at the time of parentage. I can also point out other cases, some cases of whole families, the fathers of which have gradually given way to intemperance, and the children have in a corresponding degree degenerated, both physically and mentally. As an illustrative case, I would refer to the family of a gentleman connected with the law in Yorkshire, whose eldest child is a fine young lady, intelligent, well formed, and active; but the younger branches, both male and female, are weak in body and almost idiotic in mind. The father had been gradually giving way to habits of intemperance in regard to alcoholic liquors and tobacco. Others again might be pointed out where the father has been reclaimed from intemperate and irregular habits, and the children born to him after such amendment have presented features of improvement over their brothers and sisters born previously, so that it is difficult to recognize them as belonging to the same parents. Even the state of body and mind, the flow of vital power and general harmony of consciousness at the hour when the parental function is exercised, has a direct and wonderful influence upon the offspring. This is so palpable as to make it evident beyond all dispute that strict adherence to the laws of health and temperance, in matters of eating, drinking, cleanliness, exercise, and rest, alone can save humanity from the badly organized specimens that everywhere mar the otherwise beautiful face of society.

Nor is the influence of the habits and health of the mother less apparent. On the contrary, they are even more so—small bones, weak muscles, morbid humors, diseased and contracted viscera; nervous irritability, extreme cautiousness—amounting to cowardice and timidity—excessively sharp combativeness and destructiveness, diseased approbativeness, irresolution, small hope and faith, in conjunction with large cautiousness, leading to a grumbling, impatient disposition, is evidence of abnormal states in the mother. In the manufacturing districts of England it is the custom for newly married women to work in the factories as they did before marriage. In many such cases I have noticed the first-born child to be strikingly inferior to those that followed, when the mother, having to stay at home on account of the baby, was thus relieved from the confinement and constant attention which factory life necessarily demands. Some mothers are in the habit of putting their children out to nurse, and working in the factories even till they are past child bearing with the most ruinous consequences to the offspring. Tradesmen's wives, and those in the middle classes of society, are constantly confined to the house, and absorbed in the domestic duties of continual cooking, and attending to the necessities of a prematurely numerous and irritable progeny. The upper classes dissipate their vital energies by late hours, abnormal excitements, and carriage riding, and thus the great majority of married women are utterly unfitted to be mothers of healthy or strong-minded children.

The social relations existing between father and mother have a profound influence upon the qualities of the child. I remember examining a girl about fourteen years of age, who had a most strangely unbalanced head and peculiar physiology. I was particularly struck with the want of connectedness between the cerebellum and cerebrum, and the excessive development of Ideality and Mirthfulness, with an absence of power in the perceptive and constructive regions. I suggested to a person who knew her history that her parentage must have been peculiar. I was informed that she was the eldest of six children that the mother had presented to six different fathers, to none of whom she had been married. This, and a multitude of cases even

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in wedded life, show that a lack of true love, and absence of sufficient interest existing between father and mother, and consequently the performance of the parental function without a proper motive, has the most disastrous effects upon the offspring.

PERSONAL GRATIFICATION, ETC.

People are liable to suppose that the parental function has been bestowed upon them for their own personal gratification and convenience. This is an injurious fallacy, for had such been the case it would have been as easy for the Creator to have made beings quite happy without the function at all. But the truth is this great power allying man to the Creator, in the production of the highest forms of being with which we are acquainted, belongs not to the individual but to the offspring—a trust held by all on behalf of those who follow them; hence, its dissipation or misuse is not only a crime on the individual who practices such offenses, but on his offspring, if he unfortunately have any. The parental function, therefore, should only be exercised under circumstances most favorable to the best interests of those whose existence may depend on its action.

I see before me in memory a family of ten, the eldest of whom is a young man ready to enter upon life, and the youngest a baby in arms. Such a great dissimilarity exists in the members of this family, both male and female, that one would be led to suppose them a promiscuous collection of individuals having no family relation. The eldest is an uncouth, clumsy, stupid young man; the sister next to him is intelligent, refined, industrious, versatile, loving, and ambitious. A sister follows, a regular tree-climbing "Tom-boy;" a younger brother is broad, ruddy, and blustering, with a burning desire to be a butcher or a horse dealer; the brother succeeding him is over his books all day long, with an ambition to be a scholar and a preacher; a sister follows who is quite an old woman in the family, domestic, precocious in her intuitions, exercising a regulating influence over all who come within her sphere. A younger member is gentle, spiritual, poetic, and ethereal. When we come down to the second youngest we find a bawling, squalling, fretful, irritable cry-baby, whereas the youngest is a model of plump patience and good nature. Here is a row of diverse individualities—some joyful, others miserable; some thanking God for their existence, happy, useful, and blessing each day as it appears; others neither at peace with their own organizations nor with surrounding objects. Now who is the author of this incongruous chain of harmonies and inharmonies? Why, the parents! But how are the parents to blame, seeing that one portion of the family are patterns of excellence, and others are only objects of criticism? The history of this father and mother reveals the cause; their career is written in the characters of their children. The fret and worry after prosperity; the exultation in attaining wealth; the comfort, refinement, and repose it brought; the care, anxiety, and despondency connected with losing it; the want and privation incurred by poverty; the effort and resolution to regain their lost position; the mourning over departed relatives; and every emotion and condition of the lives of these parents is thus recorded in the characters of their children.

What, then, is the duty of fathers and mothers, in view of the mighty consequences that arise out of parentage? Their duty is clear—to exercise the parental function only in accordance with the best interests of those who may hereafter exist as a consequence of their acts. Men and women, fathers and mothers, should be prepared by mental and physical training, as the husbandman prepares the soil, as nature, with genial suns and dripping showers, promotes the season for ripening and harvest. It is bequeathing a hard destiny to unborn innocents, for men and women to place themselves in the position of parents, and then surround themselves with conditions adverse to the performance of their duties.

Much has been written on the effect produced on children by the mind of the mother, and the steps necessary to secure the most favorable results in this respect. I think the relations of the father in this connection have been generally overlooked. The pursuits, emotions, motives, love, and mental *status* of the father exercise, psychologically, a direct influence upon the child, through the mother, during the whole period of gestation, and even while the child is being nursed at the breast. From the first dawn of existence till death, or so long as the father and child exist in any relation toward each other, the child of the negligent, cross, unloving father is deteriorated by his conduct. A mother requires to be surrounded by conditions congenial to the performance of the great duty which devolves upon her; and no one of these is so important as having a true mate—a loving, protecting, guardian husband, through whom and in whom all proper conditions reside.

LONDON, *September*, 1867.

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Winter Flowers.

BY PHŒBE CARY.

While Nature's lone and leafless bowers
With Winter's dreary snows are white,
The pleasant smell of leaves and flowers
Makes May-time in my room to-night.

While some in homeless poverty
Shrink moaning from the bitter blast,
What am I that my lines should be
In good and pleasant places cast?

While other souls despairing stand,
And plead with famished lips to-day,
Why is it that a loving hand
Should scatter blossoms in my way?

O flowers, with tender, dewy eyes,
To God my gratitude reveal;
Send up your incense to the skies,
And utter what I only feel!

O innocent roses, in your buds
Hiding for very modesty;
O violet, smelling of the woods,
Thank Him with all your sweets for me;

And say that I would give this hour
All that is mine of good beside,
To have the pure heart of a flower,
That has no stain of sin to hide!

Microscopic Science.—Whoever has felt the impulse to cultivate those powers which most creditably distinguish one man from another, can do it in no other way so readily as by the microscope. It leads on, if used scientifically, to the improvement of all the better powers of our manhood. Through the senses we are led to the awakening and culture of deeper powers inherent in the soul. And it is not merely an extending, but an ascending process, for in recognizing the various forms of life we are insensibly led to recognize both the individual and unitary spirit of those forms. In this kind of scientific pursuit we are not lost in the mazes of conjecture, as in other branches of science, but, from definitely formed objects of nature, we instinctively mount to creative power. Even in the unhealthy direction, in what looks, to the common eye, like repulsive fluid, in the very disorganizations which slowly ruin this goodly human frame, the microscope shows that what we call life and death are the essential poles, or antitheses, of a perpetual process.

Dentist.—One who finds work for his own teeth by taking out those of other people.

Activity Indispensable to Normal Development.

BY REV. HENRY WARD BEECHER.

The necessity of activity, the indispensable necessity of occupation, engagedness in it, continuous activity, work in all its multiplied forms—this is the law of the human condition. It has been supposed by some that when it was declared to fallen man that with the sweat of his brow should he eat of his daily bread, labor was introduced as a punishment, and that man was cursed with the necessity of working, as the ground was cursed with weeds. But it will bear no such construction. It is organic. It anteceded any change in man's moral condition. It is evidently a principle inherent in man's primal state, that he shall be a being healthy by activity. And to say that a man has had this super-imposed is substantially affirming that he was made over again. For this is a fundamental law pervading the whole economy of man—that he shall be active, that he shall work. It is the law of health; and health is the fountain of the lower forms of happiness; and it is the condition, also, to a very large extent, of the higher forms of happiness. Although it is not immediately their cause, it is their concomitant and their condition. And there can be no such thing as vigor, robustness, or buoyancy of spirits, which is the token of it, without suitable exercise.

There is no one law of labor, or work, or activity, which measures all men alike. What is active, and what is the measure of activity, is relative to each man's organization, to his nervous system, to his bone and blood and muscle. The law is general that activity is the condition of health; and nothing will more surely impair health than not to use one's self. Any part of a man's physical system—and, for that matter, any part of his moral or intellectual organization—which is long disused, becomes weakened, if it does not become diseased. We know, in point of fact, that if a man be separated from his fellows, if he be confined closely in a cell where he can not use hand or foot, the effect is in the first instance terrible pain, and consequent upon that positive enfeeblement. Then come degeneration, disease, and premature death. A man can be killed as surely by preventing activity, as by the administration of the steel or lead. Activity is as indispensable to health as motion to the purity of water, or to the cleansing of the air. Mental exercise and bodily exercise are essential conditions of uni-

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versal health among men. And as it is indispensable to health, so it is indispensable to happiness. For we are creators, within a certain range. In one sense we are gods in creation. For although we originate nothing, although that by which we work and upon which we work is prepared for us by the greater creative force, yet in our lower sphere, and in our small measure, we make new combinations, and create even as God in the greater sphere creates. And our happiness is organic, and depends upon conditions of activity—not a mere aimless moving, but cohering, organized, intelligent activity; not such activity as leads the intolerable fly in these days of summer to buzz with amazing appearance of doing, and yet doing nothing, nor that kind of incessant pottering activity which springs from no motive, and accomplishes nothing; but that activity which is an application of lawful means to proper ends. Beginning at the lower ranges of happiness, a man will be happy in the proportion in which he achieves, or hopes to achieve. The seeking to accomplish, the compassing the ends sought, and victory at every step—these furnish the whole measure of what may be called secular happiness.

The same is true of the affections. It is their activity in accomplishing results, guarding them, and guiding them, that constitutes their happiness. Their motion is their rest. And it is equally true of the intellectual faculties and the moral sentiments, that their application to the great ends or minor ends of life, and their constant activity, go to constitute human happiness.

There is no instinct more active and universal than that of seeking happiness. Philosophers have sometimes said that it was the fundamental instinct of human nature. It certainly is a universal impulse. But in regard to no other instinct have more mistakes been made. Men have sought happiness in every conceivable way. They have sought it by the exercise of single faculties, and by the exercise of a great variety of faculties. They have sought it by avoiding activity, and by being too intensely active. Moderation and excess have both been practiced for the sake of happiness.

Now, a right end of life, that develops and moderately taxes every part of the whole organization, an aim which keeps alive, and whets and renders active every part of the human economy, will reap as much of the lower measures of happiness as it is possible for a man to reap in this world. I do not believe there is any such thing as happiness for a man that is not active—and active, too, with an aim and an intent. Intelligent and worthy activity, in all parts of a man's nature, continued through life, is the secret of happiness. Mechanics know very well that a machine is injured more by lying still without using than by moderate and normal usings. An engine will wear out sooner if it be put up in the shop than if it be run upon the road. And if a man has no daily tasks that he is obliged to perform, and spends his time in idleness and inactivity, he will not live out half his days; while if he spends his time in regular industry, he will be apt to be long lived. Landlords know that the worst tenants in the world for their dwellings are nobodys. They know that houses that are given over to impure air, and mould, and dust, will fall to pieces faster than houses that are used. And so it is with the human mind. There is no way in which it can be dilapidated faster, or brought into morbid conditions sooner, than by indolence.

The only law of usefulness is continuous, organized, and well-directed activity. It is true that the same amount of activity will produce very different measures of usefulness in different persons. One soil, if it be exceedingly sandy, will produce but twenty fold. Another soil, of clay, will produce fifty fold. Another soil, of deep vegetable loam, will produce a hundred fold. And so men are rich, richer, and richest in their endowments, and the same amount of exercise will produce different degrees of product in different men. But, notwithstanding, the universal law of usefulness is that men are to be useful in proportion as they are active.

I make this remark with the more emphasis because of the impression which prevails, particularly among the young, that men are endowed with a kind of fruitfulness of nature which only requires opportunity to develop itself. It is what is usually called *genius*. There is an impression that if a man is a man of genius, he comes to knowledge without study; that if a man is smart, and is a man of taste; if he is in commerce, in politics, in scholastic pursuits; if he is a public man of any sort, he does things abundantly and easily without labor. But the reverse is true. In proportion as a man is useful, he is constantly industrious. The products of a man's mind, the products of a man's nature, are useful, and eminently so, in proportion to the ceaseless activity that is imparted to the one or to the other. There is no man born so great that he can afford to be indolent. There is no man, though his head be as massive as Webster's, but needs to study

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and to ponder. There is no man, though he be endowed like Michael Angelo, but needs to be what he was—the most laborious man of his age. Though like Titian, one has all artistic taste, and lives to the age of a hundred years, it is not simply his genius, but the power with which he applies himself, and his continuous industry, that mark and register his usefulness. A man in life with one talent will be greatly useful if he knows how to keep that talent wisely employed; but a man with ever so many talents will be of little use if he does not know how to employ them wisely. It is a mistake, therefore, to suppose that because a man is largely endowed he does not need to be industrious and active. Every one should make up his mind in the beginning that whatever faculties God has given him, the condition of his holding them is ceaseless activity therein.

In the light of these facts, let us consider the almost universal repinings of men at the condition in which they find themselves, if not in words, yet in thoughts, where taxation is perpetually laid upon them, and they are necessitated to work. I think if you were to go from man to man in all the ordinary channels of life, you would find very few men, if you took them at that hour when they made their secret complaints, who did not labor under the impression that though they should be resigned to their condition, it was a condition of misfortune that they were obliged to exert themselves. The young man, beginning in life, says to himself: "I am obliged to rise early, and sit up late, and labor incessantly; but I hope for a better time." Ah, yes, that better time is the fool's paradise of laziness! He is obliged to work now; but he looks forward to the time when he will not be under the necessity of working. He points to the *favored sons*, as he calls them, of rich men, who were not born to work, and who are useless and worse than useless in society, and laments that, instead of having what seems to him to be their good fortune, he is doomed to a life of severe toil. But I tell you, what you think to be their good fortune has been their ruin, and this necessity of laboring has been your salvation. It has been that which has made you what you have been, and what you are still. It has been a token of God's mercy to you. And instead of bemoaning your condition, thank God for it. And let every man, if he is wise, and knows what is for his benefit, when he feels the pressure of necessity goading him on, not attempt to escape from its requirements. Simplify them if you will by your imagination, clothe them as you may, make them seem agreeable if you can; but, after all, the exercise of brain and bone and sinew is your blessing. The economy in which you live that obliges you to task these to make them versatile and continuous in their action, to apply them everywhere—to hew with them, as though they were an ax; to pierce with them, as though they were a spear; to contest with them, as though they were a sword—this is God's gift to you. The man that has to work, and does work, is the blessed fellow; and he that is not obliged to work, and does not work, is the cursed fellow. And yet men accept this condition of freshness, of vigor, and health, and happiness, and self-respect, as if it were a sign and token of bondage, as if it were a disgraceful harness.

I never like to hear a man dispraise the vocation to which he is called. It is not a good and wholesome sign. Men are perpetually making mistakes in regard to their pursuits in life, and a man may perceive that if he had had an opportunity, and could have followed this or that occupation, he would, as he is organized, been more in harmony with his work; but a man might as well repine because he is not a Frenchman or an Italian, and is an Anglo-Saxon, as to mourn over his lot in life. When a man is born, it is done with, and he can not help it. You have got to be what you are. And as a man has been educated, so he must pursue life. And to murmur at his occupation, and look wistfully at something else, and spend his time thinking what he would like to do, and to cover that other pursuit with his imagination, and make fancied flowers grow upon it, and see abundant and varied fruit hanging from its boughs, while making his own business as barren and hateful as possible, by associating it with dust, and wet, and inexorable necessity, and rising in the morning to say: "Must I go to work again to-day?" and going home at night to curse the day's work—this is unmanly and mean for a man that God has clothed with the many faculties of his mind on purpose that he may clothe his tasks with fancy, and plan them with variety, and fill them with blessings. I love to see some sturdy smith, or laborious mason, or delver in the soil, who, although he perceives that there are occupations that would have given him a large sphere and more agreeable results, yet honors and dignifies his vocation, and makes every man that comes after him a better man, because he has left with his pursuit a name and credit. Since the days of Benjamin Franklin, it has been easier for a man to go into a shop and be a compositor than it was

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before. He left almost a professional element in that mechanical business; and out of type-setting have sprung more great public men than from any other manual employment. Since the days of Roger Sherman it has been easier to be a shoemaker. Shoemakers are almost always metaphysicians. It would seem as though it had come to be a prescriptive right for them to be thoughtful men. There have been sturdy men at the anvil, who have made blacksmithing an occupation that no man need be ashamed of. It is a good thing for a man to have humanity stamped on the thing which he is called to do; and the more noble he is the easier he makes it for everybody else in after life to pursue it. It is a noble thing for a man to throw the elements of his manhood into his business in such a way as to redeem it from coarseness and lowness, and exalt it with new associations.

These remarks, although I desire that they should make men content with their pursuits, do not foreclose the notion of a change of occupation, and certainly not the notion of diverse activity. On the other hand, I more and more think that men should diversify their activity and industry; that diversity should pervade all departments of human life.

We familiarly divide man into four departments—the physical, the social, the intellectual, and the moral. Although man is a unitary being, and there are no such divisions as these in nature, and they all run into each other, and cohere, yet, for the purpose of understanding, it is convenient to make this distribution. There should be in each man diversity of physical activity, of social activity, of intellectual activity, and of moral activity. Of the thousand million men on the globe, so few are able to develop any considerable activity, except in the lower part of their being, that it seems a hopeless task to elevate them. We scarcely can think of the great mass of the earth's population as pursuing any such line of duty as we prescribe for ourselves. But in this more happy land, where intelligence has developed manhood, and where opportunity is greater than in any other part of the world, there is no excuse for a man's acting from low motives. Every true citizen, every Christian man, should be industrious in the occupation to which he is called, not only because he derives his livelihood from it, but for higher reasons. Every man should develop his manhood in all its departments. It is not necessary that one should develop his intellect, as though he were a professional man. It is not necessary that a man should develop his moral nature, as though he were going to be a public moral teacher. But there is a certain degree of harmonious development that should pervade all education. And this is the birthright of every citizen in this land. There is no reason why a man that is called to manual labor should not be refined in his manners and cultivated in his social relations. It ought not to be said of a man: "He is good enough, and means well, but he is rude and impolite, for he is a common workman, and does not know any better." The common workman ought to know better. I assert of every laboring man in this nation, not only that he is to be a laborer, but that he has the means of securing, and ought to secure, such development that there should be refinement in his social affections; and I hope before I die to see it pass away that there is a presumption against a man's being refined because he is a laborer. There is nothing in labor that is inconsistent with refinement, with kindness, with affection, with whatever belongs to the domestic circle. And there is no reason why a man that lays brick should not be a perfect gentleman. There is no reason why a man that hews timber should not exercise all those sweet and gentle traits which have a dignifying and refining influence. Those trees which bear blossoms are far more beautiful than those which do not.

I have often, in going to my little place in the country, rode past great tulip trees; and I have noticed that those sturdy trees bear just such blossoms, and blossoms as full of beauty and fragrance, as the tiny tulip plant does; and I have thought: "So may it be one day with sturdy labor. May robust laborers ere long be covered over on their sides and tops, as those great stalwart trees are, with blossoms of beauty and refinement." Because men are laborers, because they are under the law of incessant activity, it does not follow that they may not be intellectually cultured men.

AN ANXIOUS PHYSICIAN.—Rev. Dr. Bellows, now traveling in Europe, writes to The Liberal Christian, that the Imperial Prince is just recovering from an abscess, and that he would have recovered much sooner had he not been treated by an anxious court physician, and treated as heir to the throne.

IF you would have an idea of the ocean in a storm, just imagine ten thousand hills and four thousand mountains, all drunk, chasing one another over newly-plowed ground, with lots of caverns in it for them to step into now and then.

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Curative Power of Mind.

BY GEORGE H. TAYLOR, M. D.

Diseases are commonly treated as though men and women were nothing more than animals. The remedies employed are almost exclusively such as are included in the category of chemistry, or at most of physiology. The world of matter around is made to exercise definite relations to the organism at various local points, provoking thereby some kind of physiological reaction; affecting man precisely as any other animal of similar material relations would be, and nothing more.

This development of medical science may be faultless so far as it goes, but does it rationally go far enough to meet the wants of the compound of matter and spirit, which common consent the world over assumes the race to be? So far from the organism being the limit of man's being, it is popularly, indeed, the world over, conceded to be the inferior portion of it. Man is capable of and constantly exercises other functions than those included in the class to which eating, breathing, digesting, and feeling belong, and is therefore susceptible to other influences than those of chemistry, temperature, electricity, etc. He is a *living soul*, associated, to be sure, with an ever-decaying and renewing body; but this body also suffers constant and profound reaction from the thinking, judging, and emotive portion of his nature. Medicine scarcely recognizes this interplay, much less does it avail itself of any benefit that may be derived from this relation.

The *fact* of this co-relation is patent everywhere outside of medical science, and the time must come when the profession can not longer neglect to avail itself of the most powerful and valuable of its resources.

We need not go far for proof that the health is certainly and deeply affected by states of the mind. It comes within the scope of our daily observation. The strong exercise of every sentiment and emotion immediately induces, as every one experiences, some modification of physiological action; whether hurtfully or helpfully depends, evidently, on its kind and extent. It only needs that mental influence be sufficiently prolonged in order to induce lasting effects, and so to verify the proposition here stated. When the effects of mental action are examined, they are found to be resolved into processes of local waste and repair; of calling nutritive material to local parts, and producing eliminative matter, more or less perfect. This process becomes hurtful, when it goes so far as to derange the harmony and unity of purpose of the organism, which seeks the equal good of all the members. It becomes helpful, curative, when it strengthens the connection between the members, and binds them more closely to its tenant of spirit; when the vegetative or organic power is reinforced, sustained, and perfected by the needed stimulus of mind.

The ways in which mental action may exercise a morbific influence upon the health are as varied as the mental powers. Prolonged melancholy, grief, despair, and somber views of life generally, from whatever source derived, are fruitful causes of physical deterioration. Such would be the invariable effect, but opposite faculties will not be long repressed; a rebound takes place, and the system re-acquires its wonted equipoise Doubtless, the exercise of these faculties of mind are to a certain extent wholesome, and are useful to round out our experience, and correct the false views that would be otherwise derived from other sources. On the other hand, that master sentiment, *love*, as well as all the higher forms and manifestations of religion, or any powerful and holy sentiment, inordinately indulged, will interfere with the exercise of the varied powers that appertain to a complete manhood, and are equally detrimental to the physical well being. All this merely proves the potentiality of mind, and its control of physical function—its disturbing influence, displayed among the constituent atoms of the body, inducing material attractions and repulsions, determining waste, and the direction and flow of currents, as assuredly as does the exercise of will affect muscular nutrition.

The special point of present inquiry is, Is this power of mind, so abundant and so ready, *medically* controllable? Can it be rendered available as a curative instrumentality? If mind be a force capable of inducing disturbance in harmony as other remedial agencies are, may it also be used to harmonize, repair, and reinforce vital power? The question is not one of adequacy, but of practicability.

Probably, the world is not yet old enough to answer this question in the various ways which it will ultimately admit of. Too much evidently depends on individual idiosyncracies to enable the physician to readily adapt the remedy to the case. Indeed, it would seem that the remedies in current use are more adapted to different classes of people than their diseases. Thus crude, chemical, earthy substances, exhibited in masses, are related to coarse, grovelling, earthy people; while refined, sensitive, and sentimental

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people find the infinitessimal preparations are sufficient; and attention to the details of hygiene subserve the instinctive interests of the commencing inquirer into nature.

The truth is, remedial power has not been systematically sought in the direction indicated. Beyond a few self-evident maxims, nothing seems practically to be known. The "doctor" is usually complacently bountiful in advising to be cheerful, to keep up the spirits, to seek employment, to make an effort, etc., but supplies no condition whereby such indefinite and meager advice may be carried into even approximate execution. Occasionally, some self-trumpted "healer," run mad with a capital of a single idea, will coax, scare, and wheedle an exceptional case, generally not renowned for mental amplitude, into health; no one seems to know *how* or *why*. Even instances of this kind afford additional evidence of the power in question, rendered available more by lucky accident than established principles of action.

We have only to look about us in any direction to find the analogies we want in this matter. Spirit rules substance everywhere. What controls the masses of matter throughout the universe? That invisible, intangible something called gravitation. What controls the condition of matter composing the mass? That impalpable something again, which, according to its presence or potency, permeates or pervades even the atom, enforcing or restraining its contact and intimate coalescence with its neighboring atoms of similar or dissimilar quality, which goes by the names of heat, electricity, etc. What introduces to us the wonders of the visible universe, whether within our grasp or in illimitable space? Certainly not matter itself, but a potential something which we call light. So it appears a rule throughout nature that what is regarded as the most superficial and shadowy of things is really the most potent and substantial.

In the same way, organized bodies are endowed with a quality elusive to our investigation, ever, during life, restoring its wasting atoms—*vitality*. This again is subjection to that potential mental condition known as the *will*. This mental product is infinitely *above* vitality in *duration*, *scope*, and *power*.

It is this which in the chronic invalid is a proper subject of medical regard and discipline. For, though locally the will power is often exhaustively active, yet it fails to diffuse itself so as to harmonize and regenerate the organism. That which in health continues to unfold the powers of the body has become impotent. It is a colt unbroken to harness. It must be trained and accustomed to its work.

THE MOVEMENT CURE.

There is one plan of medical treatment, and one only, where the power in question is rendered systematically available. This is the *Movement Cure*. The operations of this cure are of two classes. In one, the weakened system avails itself of a power from without, which practically is rendered auxiliary to that of the system, so as to perfect its processes. In its effects, the system experiences a direct, clear gain. In the other class of operations, the will itself is the virtual instrument of cure. The common method is to cause the will to travel in a specific direction toward a specific point for a specific purpose—to concentrate gradually the available resources of the body upon a designated locality. It ought to be said here, to avoid blundering experiments, that such locality is *not*, usually, the presumed seat of the disease.

If the arm, for instance, be raised, it is not only that certain muscles contract, but the mind, or a potential element or phase of mind, re-asserts and renews its connection with certain organic material; not only does the blood accelerate its course to the contracting muscle, but the part is pervaded with an indefinable power. Muscle has little tendency to act of itself—is in fact powerless—unless its connection with the central source is maintained. So far in ordinary experience, maintaining health against a multitude of absurd obstacles.

The operations of the *Movement Cure* only begin at this point. In well-conducted operations, the effect is not dependent on the slender resources of the weakened organism. The will of a trained, strong, and well person comes in as auxiliary. Various artifices are brought to bear to husband the power evoked, and at the same time to heighten the effect. The element of *time* is brought in aid. The effect of concentration is made available. The imagination is stimulated and strengthened for the occasion. Adaptation, even to the very weakest, is studied, and the will of this class is not allowed to prove inadequate, and the confidence of the patient in himself is day by day nourished.

All valuable things *cost*. This is the only thing in the way of universal, practical success of the plan of treatment here sketched. Co-operation of power is only attained through prolonged and often severe training. When this point is attained the healing effect becomes assured and palpable.

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Infanticidal Workings of Allopathy.

BY J. E. SNODGRASS, M. D.

No one who cares enough for the sanitary condition of the community in which he lives to read the reports of the industrious administrator of our Bureau of Records and Vital Statistics, could have failed to notice the great disproportion which the deaths of infants hold to those of adults.

This disproportion has been noticeable in the summer months of previous years, but it is more so than ever this summer, because of the striking decrease of the whole number of deaths, as compared with the weekly returns of the corresponding dates of last year. I do not propose to array the figures which justify this statement, because the familiarity of the intelligent reader with them renders it unnecessary.

The fact that, in a total of 677 deaths for the week ending July 30, 1867, we find 477 (!) set down as those of children under 5 years of age, ought to be sufficient to startle the community into the inquiry: "*Why* this fearful mortality among our children?"

Along with this question ought to come a reference to the fact that the season has been remarkably healthy, compared with previous ones.

Now, the general causes of mortality among the inhabitants of this city are too well known to justify the use of space in particularizing them. The classes of our population which sustain this immensely disproportioned loss of their children claim our attention, however, as justifying the inference that the difficulty is not so much one of causes as of a lack of remedies. It is well known that it is among the foreign residents of our city that death most successfully carries on its work, and that much the larger proportion of the young victims referred to are the children of Irish parents. It is also well known that a very small proportion of this class employ other than Old School physicians. It is true that a practitioner of the Homœopathic, Hydropathic, Botanic, or Hygienic School, is not seldom called into this class of foreign families. But, when this occurs, it is much more likely that he is summoned merely as a last resort, or in some emergency, than as the family physician. The less destructive modes of practice pursued by the classes of physicians enumerated—to put the case in the least pretentious form—relying, as they necessarily do, more upon the recuperative vital forces of the patient than upon any supposed power in remedies to supply a deficiency of these, as is the wont of the Allopathic, have an underlying philosophy which requires a sort of intelligence rarely to be discovered in this class of people, because their notions of the laws of health and disease are generally very superficial and erroneous. Religiously taught, indeed, as the larger part of them are, to defer to the outward and the physical, rather than the occult and spiritual forces of nature, it is exceedingly difficult to indoctrinate them in the views of the newer schools of medicine, whose more cultivated disciples find a common ground of reliance in the opposite philosophy—that which accepts nature as the safest guide, and therefore is ready to study, and defer to, and assist her laws in their professional administrations. Hence, to quote a very common remark of practitioners of these more progressive schools, it is very difficult to "hold" one of this class of families, when, as an exceptional thing, they happen to be called into it. They are very well satisfied, perhaps, if not interfered with by those whom they are taught and habituated to "look up to," until some member of the family dies under the New School treatment, and then no longer.

This last statement will seem as no exaggeration to any one of any considerable experience among the class of people under notice. They act as if they expected impossibilities of the New School physician, and discharge him under circumstances not half so discouraging as those under which they cling to the less successful Old School practitioner, absurd as the fact may appear—cling to him as if the more his name and personality are associated with the deaths of those near and dear to them, the more they put faith in his power to cure rather than to kill!

It may not have been brought to the notice of medical practitioners generally, much as the fact concerns their selfishness, that very rarely, if ever, does a New School physician of any "pathy" come from the class of foreigners to which we have reference, and yet this will be found to be the truth of the matter. But, to go somewhat further, it has been more than suspected that in several, if not all, of the parishes of this metropolis, the Catholic clergy have privately, if not openly or in public, counselled the faithful to employ, exclusively, physicians of their own religious faith. I do not say they have the purpose, in the exercise of whatever influence they do attempt to wield in this behalf, to strike at any particular medical creed, or to exclude those physicians holding it;

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but the effect is all the same, by reason of the circumstance just noted.

I am aware that there are very plausible reasons for this course, which are pleaded in justification of it—such as the embarrassment occasioned to the taking of the confessions of dying patients, in the absence of a confessor, and the inability of Protestant physicians to administer efficacious lay baptism to infants. These might be deemed sufficient to justify even the promulgation of a rule on the subject, and are so for all that concerns the point I am about to make; but they would not obviate the practical and inevitable result of throwing the medical care of the parishioners almost exclusively into the hands of the Old School doctors, where we find them.

Now, in my judgment, here is one great secret not only of the immense disproportion which the deaths of infants hold to the entire mortality of New York, but of that also which the adult Irish population, as compared with the American, holds in the returns.

In the treatment of their diseases, Old School physicians, even with their prostrating drastic purgatives and torturing blisters, do give their adult patients some little chance for recovery in spite of both the disease and the doctor; but any one who has had experience in both the Old and the New School *knows* that slight indeed are the chances of tender infants to recover under such a treatment.

I may be met here with the statement that drastic purgatives and blisters are seldom given to infants laboring under the "summer diseases" to which so large a proportion of the infantile deaths are attributed. I answer that where they are omitted, a still more fatal "remedy" is generally resorted to—opium, or one of its salts, such as sulphate of morphia. And in those cases of diarrhea accompanying dentition, as the larger number do, the Allopaths do not seem to have yet learned the danger of its administration. The difficulty lies here: The diarrhea nature kindly sets up to relieve the tendency to congestion of the brain, which the increased action in the gums begets, under the usual unfavorable conditions of infantile life in cities. Mistaking this for an enemy rather than a friend, they make haste to check it with opiates. They most likely succeed. What then? Why, congestion of the brain follows, and the infant dies as the inevitable consequence, in spite of all the cruel blisters they may resort to, in their absolute ignorance, "to draw the heat from the head." If, when its spirit flies from a body in which it has not been permitted to control the vital forces in a process which was intended to put it in fuller communication with the outer world, the mother, in half consciousness that some great wrong has been done to her heart's treasure, deems herself lucky if she is spared the agonizing light of its death amid the distortions of a convulsion—for the work of the opiate may have been so complete as to not even allow of such an effort at reaction as that!

I write this under the inspiration of a case in point, which has just occurred in this city. A child about six months old, well formed and promising, was the subject of a diarrhea which accompanied dentition. The family doctor—an Old School practitioner—was called in. Having resorted to some less powerful agents, without succeeding in effecting his purpose of arresting it, he resorted to opiates. He then succeeded. Determination of blood to the head followed—as it always does follow any form of opium administered under like circumstances—and symptoms of congestion of the brain.

But the doctor's time for that sleep which even practicing physicians are sometimes expected to enjoy having arrived, he retired for the night, unconscious of having done any wrong. He is soon aroused by a messenger, announcing that his little patient needs his services immediately. Having full faith in their efficacy, while never dreaming of any danger from his opiates, he grumbles at being deprived of his much-needed slumber so unnecessarily. But he responds to the summons, albeit ungraciously. On arriving at the bedside of his little patient, he is astounded to discover that there was indeed cause for parental solicitude. The child is threatened with convulsions, as the result of the action of his own medicine, though he does not admit this, for the best of reasons—he does not perceive it in the darkness of that ignorance which his medical education has caused to gather around him. But a new remedy is called for. He is not slow to hit upon one. It is a fly blister, to be spread at the nape of the neck and between the shoulders. It is prescribed, and an apothecary is aroused from his slumber, after more or less delay, and prepares it. A little further delay, and it is on its allotted place, and the family doctor again seeks his couch. With him faith in his skill—or at least in his system—departs, and a Homœopathic physician is sent for, and responds that he will go and do whatever he can, cheerfully. He does so, but that "can" is nothing. It is too late. The blister has done the work which its name indicates, producing a wide-spread and angry

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ulcer, which, if otherwise caused, would probably have been pronounced dangerous in so young an infant, perhaps irremediable, by even the Allopathic doctor himself. But congestion of the brain has been exchanged for the friendly intestinal symptom, and as the malign work of the opium.

The Homœopathic physician frankly says: "It is too late, I fear, to save your babe. But the first thing to be done is to remove this cruelly and worse than uselessly torturing blister!"

"Why, doctor," says the agonized mother—the last to lose faith in the doctor who was her *accoucheur* when the little sufferer was born, and therefore seems more than any other physician to her and it—"*my* doctor said that blister must remain on two or three hours longer!"

"Madam," replies the Homœopath, "I frankly tell you that the chances are nearly all against your babe surviving so long as that!"

The blister is removed, and Homœopathic remedies are prescribed. But it is soon discovered that they have come too late. The drug has done its fatal work, and the screams of an inconsolable mother and the groans of a voiceless father tell the sequel. Their babe is now beyond the reach of its professional enemy, in the flower-strewn burial casket, and that casket rests in a new-made grave!

Who is responsible for that child's early death? Do you answer me: "Perhaps it would have died under any other treatment?"

That may be, and nobody can positively deny your position. But that consideration does not justify the blunder of the opium, given to suddenly check an action on the bowels, which nature intended for the best, and which was indispensable until the undue excitement, caused by the teething process under unfavorable conditions of some kind, was subdued in the head.

"Do you condemn the Old School doctor?" am I asked?

I frankly answer "No!" He may never have been permitted by his surroundings to see the first ray of the true light. And if so, he is as guiltless as hundreds of New School physicians were while they groped in the darkness of the Old School. But the system under which he has done that cruel wrong is to be condemned. It is the parent of wholesale homicide, and it made the nameless doctor referred to a professional infanticide, however unconsciously. It has given the cue to the manufacturers of the vile soothing syrups, with which thousands of children are sent to untimely graves year after year. The writer of this protest followed its teachings faithfully for nearly twenty years, before he caught the first ray of the light which has now spread itself over a wide and still widening horizon of professional thought and experience, enabling those who would be true and safe practitioners of the healing art to take their lessons from Nature, and be content to aid rather than to thwart the benignant processes of cure which she sees fit to adopt. Those who pursue this course may make mistakes as well as failures. But to their practice will never be brought home the accusation of being little less than a system of professional infanticide, as may be all too truthfully affirmed of Allopathy.

Life.

Life is good—
Of endless good,
Of cheery joys
In multitude.

Life is sweet—
Sweet honied bliss,
The oil and wine,
And more, I wis.

Life is fair—
In beauty's guise,
In subtlety
And glowing eyes.

Life is strange—
Mysterious,
A labyrinth
O'erflooding us.

Life is dark—
Fell shadows lie,
And blighting rays
Of treachery.

Life is sad—
In pain and grief,
A shadowed bier,
The falling leaf.

Life is—no!
The spring returns,
The meadows bloom,
And Life—it burns!

TILDEN.

A True Wife.—"My dear," said a fond husband to his wife one day, "where would you go should I fail in business?" "Where I always go when I can, love," was the answer, "into the *arms house*," and so saying the lovely wife hid her blushes in the circling embrace of her husband.

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The Physiological Anatomy, Physiology, and Pathology of Man.

VII.

BY RUFUS KING BROWNE, M. D.,

PROFESSOR OF EXPERIMENTAL PHYSIOLOGY AND MICROSCOPIC ANATOMY IN THE NEW YORK COLLEGE OF DENTISTRY; FORMERLY PROFESSOR OF EXPERIMENTAL PHYSIOLOGY AND MICROSCOPY IN THE NEW YORK MEDICAL COLLEGE; PROFESSOR OF PHYSIOLOGY, NORMAL SCHOOL OF PHYSICAL CULTURE, BOSTON.

It is apparent to whoever has perused the preceding numbers of this series, that fluids of different degrees of density, as well as soft solids of different degrees of consistency, are both components of the organism; but, in the strictest sense, both alike take part in the constitution, form, and shape of the varying organs. Thus the units of the organism grow and increase in number, augmenting the size of an organism, in virtue of the fluid portion of the mass of tissue everywhere diffused among them we have named pabulum. This portion of fluid, we must understand, is a physiological bond of communion between the different minute elements, they themselves being replete with its more watery constituents.

Beside this, we have stated that the organs, as a complete building of these elements and associated fluid, consists in great part of tubes of tissue, filled to the point of turgescence with a tide or current of moving or flowing substance. These are the lymph and the blood. These latter are also, in the strictest sense, no less components of the organism than the soft solids and hard matters themselves. They are this no less in their anatomical than their physiological or progressive character, and though they can be extruded, discharged, or expelled from the system, leaving the static parts entire, yet neither the form nor internal character of the texture can be sustained without their intimate and integral association with the formed or solid elements.

Both blood and lymph enter largely into that combination of the textures which is their build, notwithstanding it is bounded in and confined in its course by the proper walls of the blood-vessels. Our imperfect and often erroneous notions of physiology are greatly promoted by a contrary supposition. The blood and lymph of an organ, no less than the walls of their vessels, although it is mostly amorphous, is yet, in the most exact sense, a constituent of its textural character, and fitted though it is to pursue its endless round in narrow tubes, it yet constantly replenishes the tissues and external textures, supplying the exact equivalent of their wear and destructive metamorphosis in substances of precisely similar character to them. Thus the round of the flowing substances of the body is an essential constituent of both the anatomy and the physiology of the tissues, both in sustaining them in repair, or maintaining them in their anatomical integrity, and to furnish them the substance for their processes. Thus, through these alternate layers of cell and capillary wall, between the blood itself and the intestinal canal, transudes the liquefied food from the intestinal cavity into the blood, to increase its volume and augment its substance; but this is only the *finale* of a process the means of which had been previously furnished by the blood.

Of the seven watery and viscid fluids which issue into the alimentary or digestive canal, the substance of each is furnished from the blood, and without their active and, in part, energetic decomposing influence on the food, it would pass through the intestinal canal unchanged, as a mass of solid animal or vegetable substance. The process of giving these secreted fluids their character is wholly dependent on the material which flows into the secreting texture from the bloodvessels. The texture involves these bloodvessels and their contents. Intimately associated with and in the closest possible cohesion to the cellular elements of glands, are the capillaries and their contents. From their contents regularly transude, through the capillary wall and the cellular elements, fluid substance from the blood, to collect in the conduits or ducts of the glands, to issue in the canal where the transformation of the food is to take place. But this is not merely a *passage*, but a process, during which the fluid from the blood is made to undergo a change in character by the action of the cellular elements and substance of the gland tissue. In this latter inheres the character of the movement as a process. Thus the secretions—called collectively the saliva—collect in the mouth, to be swallowed into the stomach, or, in the act of eating, to take part—the beginning stage—in the destined transformation of what we eat. The same is the process of the gastric secretion. Curling around and between the gastric glandular texture run the capillaries turgid with their contents. The presence of the swallowed food induces a transudation of their fluid contents through the capillary and gastric tubular wall into the general gastric cavity or stomach. Collected on its inner surface in drops, it becomes intimately mixed with the food in its to and fro motion in the stomach.

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The contractile motion of the stomach displaces the food toward its lower end, and backward to its larger end, a process repeated until the food has taken up a due supply of gastric fluid and been disintegrated, and its fluid constituents brought into a common state of flow.

The same process is true of the pancreatic juice, the biliary juice or bile, and the intestinal juice—a viscid, mucous-like substance. Now none of these fluids could arise and effect the digestion of food without the occurrence of the process commenced by the blood and its vessels, the capillaries, exhibiting both their anatomical and physiological character. The whole is a continuous compound or composite process, commencing with the blood and its vessels, and coming to a temporary close in the act of absorption. Now this latter or concluding step of the process is again done by the same agents, for it is immediately into the bloodvessels, to mingle with its current, that the dissolved food must pass.

So, too, the problem of nourishment is solved by these agents, for the liquefied portion of the food in the blood must pass through the capillary walls elsewhere, and come into close contact with the textures, by which it is appropriated as an exact substitute for their particles worn away. This latter is the same as the process of growth we first described. All the various fluids have performed the *round* of passing out of and returning to the blood, having combined with the food they digested and been with it re-absorbed into the blood. The gastric, biliary, pancreatic, and intestinal juices are returned to the blood. Previous substances pass from the blood into the digestive hollow, combine with the food in the act of operating upon it, their course of combination being the last stage of the transformation, which *fits* it to be absorbed, as it would not be without both their action *upon* and addition *to* it. The regular recurrence, at intervals of hours, of this process would only be possible with these same substances restored directly to the blood. The round consists in the blood yielding these substances, to be soon restored to it, with a certain amount of new material—the digested food. They are now again in the hermetically closed circuit of the bloodvessels. From this circuit now drains away the nutritive material into the surrounding tissues. So much of this as the tissues will appropriate to supply their previous wear enters into structural cohesion with them as in growth, while the unused portion and the released or "wear" portion drains and drifts away through the lymph spaces, lacunæ, and canals, to be also restored to the blood. Both digestion and nourishment are each a round neither of which is possible without both the anatomical and physiological characters of the blood in full play.

Hitherto we have only spoken of the liquid portion of the blood, for we have nowhere seen that any of its soft-solid, cell-like elements leave it. These elements could take no part in these processes. Of these two sets of elements —the white and red corpuscles—the latter performs the office of hastening the circulation. They move forward in and through the liquid portion or stream at a much more rapid rate than that volume itself. Their genesis is from the transformation of the white corpuscles, which are the last stage of the lymph corpuscles, the product of the lymph glands. The lymph corpuscles originate in the lymph glands, and are borne by the drift of the lymph through the lymph vessels of the blood.

The entire mass of blood consists of these two sets of bodies, and a viscid, amber-tinted fluid, the *plasma*, a part of which latter, occasionally in the body and always outside of the body, will harden or solidify into fine shreds or filaments—called fibrillization, leaving a watery fluid—the serum. It is universally taught that, while there may be considerable variation in the rate of flow of the whole column of blood, all its constituents move at the same rate, and that the red-blood corpuscle is borne along by the fluid volume. But in reality these bodies move forward through the blood channels at a much faster rate than the current of the blood—which is that of the fluid column. No portion of the fluid can advance more rapidly than that already forward of it in the channels, but only advances by pushing forward the equivalent of the fluid in advance; but the red corpuscles regularly, in the arterial part of the system, advance more rapidly than the fluid. Hence, in those portions of the blood channels, as in the veins, not formed to act locally to forward the column of blood, as in the arteries, by their contractions, a far larger proportion of red globules to plasma will be found there. And this is the anatomical reason why the sum in a given space of the red globules may be in different parts of bloodvessels so unequal. In many local morbid states it is well known that these bodies are very unequally distributed—a phenomena which can never be explained on the assumption that all parts, soft-solid bodies and liquid of the blood, are borne along at an identical rate for all, whether slower or faster. As there is a far less proportion of plasma than red

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corpuscles in the veins, they crowd the vessel, and a retardation, as compared with the arterial flow exists, since they can not advance through the fluid with freedom and facility. But as they reach the venous side, or cavities of the heart, and are impelled into the artery, they again hasten forward at a rapid rate. The charges in advance, being the first to pass from the retarded rate of flow, hurry onward; while others coming to the heart are yet retarded, these follow in hastening their rate. Under this movement the pulmonary circuits are found crowded with red globules, a fact the explanation of which has never before been hinted. Returned to the arterial side of the heart, and there subjected to transient delay during each diastole, the whole column of blood is again impelled forward, and the red corpuscles hurry onward at their most rapid rate to again reach the capillaries, and through them the veins. These facts supply a long-needed explanation of the unequal proportion of globules to liquid in different parts of the blood channels, which can not be explained by reference to any other facts or supposition.

Difficult as it may be to understand that this fact should have remained so long unobserved, yet it is undoubtedly true. There are three distinct stages in the circulation, the steps of which are dependent on this rapid advance of the blood corpuscles. One in the arterial system, in which the blood corpuscles have the freest possible motion, or freest in proportion to the column of the plasma. This is in the large arteries, where the volume of plasma moves forward at the highest rate possible for it under the immediate impulse of the heart. Throughout this part of the bloodvessels there is no accumulation of blood globules in advance, and no retarding influence for the globules consequent upon it. In this part of the circuit the difference between the rate of the plasma and the globules is at first least, but increases from the heart to the capillaries, the movement of the plasma being at its highest. The second stage is in the capillaries, where the rate of passage of the plasma is still further lowered, and the *rate of globules the same*. Third, in the veins, where the continuous rapid flow of the globules has carried them forward in numbers which constitute an accumulation. Here they occupy far the larger portion of the caliber of the vessels, and actually *take precedence* of the flow of plasma. At the same time, at the other end of the venous tubes, the accumulation is being relieved by the constant falling of the venous contents here into the venous cavities of the heart. Up to this point the red globules are greatly in excess, but by the contraction of the venous ventricle a new impulse is given to the whole blood, starting the plasma forward again at its highest rate. Here the globules again increase their rate over that in the veins into the pulmonary channels, and crowd the capillaries of the air vesicles, being far more numerous in proportion to the plasma than in the arterial system or the capillaries, though the rate is no greater, and the difference of rate between the two portions of the blood is less until it reaches the capillaries turning round into the arterial cavities of the heart, when the whole column receives a new impulse, and the rate of difference of speed is maintained until the capillaries are reached. But even when the difference of rate is slowest the globules move much faster, and hence, when they reach the veins where the accumulation of them *always* exists, and the force of the cardiac impulse has declined to its minimum, the rate of progress at the capillary end of the veins is comparatively slow, but much more slow for the globules, as compared with their highest rate, than for the plasma. In brief, while the rate of the plasma is greatest nearest the heart, and progressively lowers as it goes away from it, the rate of the globules is always faster, except when retarded by the accumulation in the veins, the necessary consequence of their more rapid movement. The comparative difference of rate of passage of the two differs in different parts of the circuit. The difference is least in those parts of the system where the immediate impulse or accelerating influence of the heart is exerted, while also the rate of the globules varies in different parts of the system, being slowest in the veins. But this decrease in rate is due to their previous rapidity, causing them to accumulate in excess here. The excess of globules to plasma in the capillaries of the lungs is the consequence of their accumulation and greater excess in the venous system.

In no other way than by this fleeting of the blood-globules *through* the plasma can the process of transit and delivery of oxygen be carried on, unless we suppose the fluid portion of the blood to imbibe the oxygen from the air cells in the lungs, as a stream may imbibe something from its banks. If this were the case, no mixture of oxygen could take place through the different parts of the stream. But it is acknowledged that the red-blood corpuscles are the agents for receiving, carrying, and delivering it to the various parts where it is used, and to account for this it is requisite not that they should

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passively float in the stream, propelled, as the fluid parts of the column are, by the propulsive contraction of the heart, but that they should course rapidly through the stream to become partially deoxidized, or to deliver their oxygen throughout the lines of their advance, thus securing its perfect distribution, which is not conceivable on the old supposition of their passivity. In fact, it is *this* partial oxidation which they undergo in the lungs to which is attributable their active movements. This oxidation and partial deoxidation, or parting with their oxygen, they regularly undergo, alternately and consecutively, throughout their round, in different parts of the circuit, oxidation in the lungs and deoxidation in the tide of blood. In this latter they impart their surplus oxygen equally throughout to the volume of the plasma or the fluid portion of the blood, becoming thereby partially deoxidized. From this portion they again pass to the lungs to absorb their fullest amount of oxygen. Careful spectral analysis of the substance of the blood, the cruorine, shows that in one state, *i. e.*, in the arterial system, the substance of the red globules is in a high state of oxidation, and in the venous system in a low state of oxidation. The red globules, therefore, in virtue of their free and rapid motion everywhere through the plasma, keep it highly oxidized. This motion is, in fact, a necessary condition of the free imparting of their oxygen. It is this plasma which regularly yields oxygen to the tissues, and this in virtue not of the transudation or diffusion through the capillary of the oxygen directly from the globules, but of the oxygen contained in the plasma, which regularly transudes through those walls into the tissue. No part of the globules ever comes nearly in contact with the tissues, even of the vessels themselves, much less of the tissues surrounding them, and if they did so they could not impart their oxygen to the tissues, except at the particular points where the contact was established, while the plasma does regularly transude to bathe the elements of the tissue at all points uniformly, and to supply their nutriment. In the continual process of doing this, it supplies the pabulum for the tissues. Both oxygen and plasma are needed simultaneously for a double purpose—viz., first, the oxygen reducing the worn particles for removal; and second, the pabulum to supply their place. These very processes must take place in precisely this order at one and the same period. There are several processes of the economy in a very unsatisfactory state of explanation, which can be accounted for by no other event than that of this difference in rate of progress of red globules and fluid portion of the blood. It is generally known that the *character* of the flow of the whole blood differs in different parts of the vascular system—that it is quick in the arteries. Here the whole column is pushed forward at each charge thrown forward by the heart. It is much slower in the capillaries, and very much slower in the veins; and this is true of the plasma—for always, without exception, the rate is thought to be identical for both the red corpuscles and fluid portion. But in reality the plasma does not flow at the rate of the red globules. The rate of the former is marked by the white globules, which are seen to glide slowly as compared with the red, along in the circumferential part of the stream, and to occasionally move *upon* some point of the inner surface of the capillary wall.

Really, then, when a red globule is retarded in a capillary stream by others preceding it entering from another capillary stream, the observation needs but be truly understood, as a fact, to make it apparent that the globules in advance of a certain line or point may cause delay in those just behind it, and thus an accumulation arises. The units of the accumulated mass move slowly forward, from one end of the column to the other, until they reach a point where the most forward elements of the column are either impelled forward, or their rate, from some other incident, *increased*, and the globules are separated from each other free to resume their usual flow. This regularly takes place at the end of the venous column, and the impulsion which clears them is given by the venous cavities of the heart. It is well known that the character of the blood is not the same in the arterial and venous system, and also that its constitution changes from time to time. During every term of digestive absorption large additions are made to it, through the lacteals, of the fluidified food. The blood is supposed to take up directly through the walls of the vessels the carbonic acid of the tissues, which is carried to the lungs and lost there by passing into the air cells, from which it passes outward with the air; but certain as we are in representing this to be the case, there are many reasons for believing that we do not yet understand this process aright. We *know* that from the tissues the dark blood reaching the venous cavities of the heart is impelled by them into the lungs, where it undergoes a change from dark to bright or scarlet red; and we know that the oxygen of the air is somehow brought into combination with the blood, and does effect this change of color. It

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is almost equally certain that the change consists in the red globules absorbing the oxygen, which they transport to every part of the system they go to. It is generally supposed that they impart it to the tissues as directly as they received it, but we have already intimated that this is very doubtful. Our knowledge of these transactions, and particularly of the latter, is defective, the difficulties of demonstration being almost insuperable.

The red-blood globules are perpetually renewed, and as constantly disappear by a process not of disintegration, but of destructive decomposition or dissolution, a *finale* which is due to its recurrent oxidation and partial deoxidation. The difference in sizes we have named marks the difference in its stages of growth. The general opinion is that the human red-blood corpuscle is a cell with red contents, the nucleus of which has disappeared, or that it is a free nucleus of a cell. But I have frequently shown that it has no cell wall, and only resembles a cell in its shape. The entire red corpuscle of the guinea pig will rapidly crystallize in tetrahedral crystals, and subsequently the crystals will entirely coalesce, showing the entire absence of any of the structure or distinctive material of a cell. The majority of the red-blood corpuscles can not be tinged with carmine, while the nucleus of a cell always becomes so when treated with carmine. But the *smallest* of the red corpuscles can be colored by this means, and these are undoubtedly *young* red corpuscles.

In the lymph canals, and passages in the intervals of digestion, there may always be seen small corpuscles of the same character, which may always be readily colored, and these undoubtedly grow to be full, complete corpuscles. And there is no doubt that they are constantly renewed in this way. The facility with which they will break up and disappear under the action of fluid and heat has been shown by Max Schultze, and if they be pressed by a grinding motion between two glasses, they will be converted into a viscous amorphous mass, showing that they possess none of the structure of a cell, and showing their fitness to pass on to a state of dissolution.

The red color of blood is entirely due to the red corpuscles, and these contribute to the blood its most important characteristics, and the difference in color between arterial and venous blood is caused by alternations in the material of which the red corpuscle is composed. It was formerly considered that this matter consisted, chemically speaking, of two substances —hematine and globuline, but later researches tend to the conclusion that there is but one readily decomposed. A solution of this substance produces peculiar absorption bands in the solar spectrum. The same bands are produced by this substance from different animals. This colored matter is known to be capable of existing in two degrees of oxidation, and a different spectrum is induced according as the substance is in a more or less oxidized condition. In venous blood there is every reason to believe that part of this substance exists in its purple or less oxidized condition, and that this, in the form of the globules, in passing through the capillaries of the lungs, is re-oxidized and converted into the scarlet-colored corpuscle. The red-blood corpuscles possess in a remarkable degree the property of absorbing and parting with carbonic acid gases. It has been shown that red-blood corpuscles will absorb twenty-five times as much oxygen as water, and that the oxygen can be again expelled in vacuo.

But beside the property of acting as carriers of ordinary oxygen, it is possible that the red-blood corpuscles may be very efficient carriers of *ozone*. His has ascertained that they very readily take up and give off this peculiar form of oxygen.

Approximative measurements of the space gone over by the red corpuscle satisfies me that it moves four hundred times its own length in a second, a rate of progress which is not possible for any column of fluid. As the rate of movement of the plasma can not, in the nature of the case, be measured by the eye, all estimates of the movement of the blood have been upon the movement of the globule; but in presence of the foregoing facts it is evident that such measures are utterly erroneous. The blood column is an *endless* circuit; but though there is no point of beginning and ending for either the column of blood, nor time or moment of beginning or ending of the variations in its rate, yet there is a point and moment when the blood is stayed on the venous side of the heart —namely, when the contraction of the venous auricle last preceding the systole of the ventricle occurs; and there is also a moment midway of the column, when it receives a new impulse, following this staying, in the form of a push.

So, too, last preceding this, there is likewise a moment when the column is divided at the auricular ventricular orifice, the heart being collapsed, and no interfering force is exerted. The latter is longer than the first, for the division or separation continues until the venous cavity of the heart has time to fill and contract.

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The regular recurrence of this moment of separation and lapse of cardiac pressure has effects we can not yet estimate from want of sufficient observation. We can only say that there is a part of the venous hollows which collapses and contains no blood, thus making a hiatus or hyphen in the column. This collapse must change to open state and fill the space. But up to this time the column is divided, until the pulmonary valves open and a charge passes through them, while simultaneously with this reunition of the column at that point, it is divided behind at the auriculo-ventricular valve, which now separates between the emptying venous cavity of the heart and the back column.

It is phenomena of this character which shows what combined childish folly and child's play it is for the chemist or physicist to pretend to offer even the faintest hint of explanation, on any laws of which he has any knowledge, of these events.

They plainly proclaim, in the very nature of physiology, an unseen force which is behind and within the form, as the soul is within the body. They are not examples of substances with properties, but of power, which make all these substances subservient, and turns them to use at its royal pleasure.

Notwithstanding this, many facts would seem to justify the inference that the red-blood corpuscles are as intimately concerned in the carrying away and distribution of heat, and in equalizing the temperature of the body.

The fluid portion of the blood alone yields the variety of substances required for the reformation of tissues, and for maintaining them in a state of completeness to a certain age. It is a highly composite liquor made up of water, holding in solution a choice variety of animal, crystalline, and earthy substances, and products resulting from physiological decomposition and dissolution. It is therefore the medium to carry in the same stream nutrient matters to every tissue, and to bring the substances resulting from the wear and disintegration of textures to the different parts of the body where their removal can be effected. This fluid contains two forms of animal substance—the one, fibrine, which undergoes a natural coagulation into fibers; the other, albumen, an artificial coagulation when heated. Pure fibrine is white, tasteless, and inodorous. Under the microscope it is seen to consist of fibers crossing each other at every possible angle. In the clot of blood it entangles the white and red corpuscles. The fluid portion of the blood, before the fibrine has turned into fibers, is the plasma or "liquor sanguinous." The fluid portion, after the fibrine has solidified into fibers, is the serum. Albumen forms more than thirty per cent. of the blood, and is one of the chief components of the tissues of the body. It is in a state of fluidity in the blood, but in the tissues is solid—as, for instance, it forms seven-twelfths of the dried brain, spinal cord, and nerves. It is found in many of the fluids of the body, as in the aqueous and vitreous humors of the eye. Beside, the mineral acids will coagulate albumen. Albumen is one of the substances which form the pabulum of growing tissues.

The existence of sulphur as a constituent of albumen is shown by the blackening of silver that has remained long in contact with it. Beside this there are other earthy substances which enter into the composition of the blood.

Of the substances which leave the body, all, with the exception of those which desquamate from the expanded surface—as, for example, the skin and mucous membrane, or inner surface of air passages, alimentary canal, ureters, bladder, etc.—all are secerned from the fluid portion of the blood. Those from the skin and mucous membrane consist of elements of tissue, cells, etc., which are constantly pressed upon from beneath by the constantly multiplying and growing broods of others, and are scaled off by friction, wearing, washing, etc. Of the other soft-solid matters, the special channels of exit are the lower part of the alimentary canal, the kidneys, and the air passages. Through the former pass the undigested portions of the food, covered with a slimy substance, highly viscous, secreted by the little glandular elements set everywhere in the lining of the intestine. Through the second pass into the bladder, and exit through the urethra, substances of animal and earthy character, in a state of dissolution, in the water of the blood, altogether constituting the urine. Some of these, particularly urea, are supposed to represent the substance of the waste of the soft-solid textures, reduced by various supposed chemico-physiological processes to their most degenerate form, and having performed their work are discharged from the body by the urine. Urea is an example of these—a white crystalline, which yields on analysis a large proportion of nitrogen, and from this fact is supposed to be the waste substance of the soft-solid tissues, which also consist of substance containing about the same proportion of nitrogen.

By the air passages the carbonic acid of the blood, a certain proportion of it, gathered into the very bottom of the bronchial tubes, passes

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out, mingled with each outgoing breath. Beside this there also pass out animal and watery vapor both from the blood and the lung tissue. This carbonic acid is the exact counterpart of the oxygen, a percentage of which from each in-breath is taken through the bottom of the air tubes into the bloodvessels of the lungs, to enter the body for service there. Beside this source of oxygen, however, Liebig has shown that some of the water or combined oxygen and hydrogen undergoes decomposition, and oxygen is inwardly released for the purposes of the system, to which a full supply is very necessary.

We have now dealt with the substances of the body, both those which are embodied in the soft-solid tissues, and those which are in a more or less flowing condition, either in a constant or frequent state of flux: 1. Passing into the system, 2. To and fro *in* the system, and 3. Away *out* of the system. These three divisions of substances are far more accordant with physiological truth than any division according to their presumed chemistry.

[TO BE CONTINUED.]

A Letter to Young Girls.

BY MRS. E. P. MILLER, M. D.

I DO not mean *little girls* nor *young ladies*, but girls from ten to fifteen years of age; those who stand upon the bridge between childhood and womanhood—I want to have an earnest talk with you.

And just let me tell you something about myself, when I was a little girl. I had a most excellent mother—I have her now, and I hope each of you have one just as excellent, just as earnest, just as good and true.

When I was a very little girl, as long ago as I can remember, my mother taught me that "IT IS A DANGEROUS SECRET THAT A GIRL CAN NOT TELL HER MOTHER." Did your mother ever teach you this? I know she thinks so, even though she may not have said it in these same words.

Well, this made a very strong impression upon my mind, and I never for one moment forgot it. So when I was at school, or with my playmates anywhere, and they would say, "Oh! I'll tell you something, but you musn't tell" (as girls often do, you know); I would always ask, "Mayn't I tell my mother?" and if they said "No," then I used to tell them they need not tell me, for *I would never promise not to tell my mother!*

I used often to make them angry with me, but I had the approval of the still small voice which we call Conscience, and I was satisfied.

Now, girls, I do believe I was saved from a great deal of sin, by always refusing to listen to any thing that I must not tell my mother; for, of course, if my mates had any thing impure or sinful to tell, they would keep it to themselves, because they would not have had my mother know it for any thing.

You know by this time, Mary, and Stella, and Hattie, and all the rest of you, that there are bad girls in the world, but I *do hope that you have never learned any thing that you would be afraid or ashamed to tell your mothers.* You are just at an age now when your whole future lives depend upon your present habits and conditions.

If *by any means* you have learned *any bad habits, break them off at once*, if you want to grow up and be healthy and happy women.

I do not feel anxious about you in consequence of what I learned when I was at your age, for I have told you how I escaped the knowledge of much evil; but since I have grown up, and become a physician, I have so many young ladies come to me, *weak and feeble*, with lame backs, aching heads, weak eyes, and faces any thing but pretty, and all because they *learned* and *practiced evil habits* in their childhood, and when they were at your age, just budding into womanhood. And they tell me they would give all the world if some one had only told them they were sinning. They did not realize it then, but they feel now as if their bodies, and almost their souls, were ruined. The regrets and the remorse of some of these poor sufferers, almost breaks my heart; and this is what made me think I would write a letter to you; for I can not bear that any girl belonging to our HERALD OF HEALTH family should do what is evil, and bring upon herself such misery for all her future life.

I want you all to be as pure as the angels, just as pure as God designed you to be, and never do any thing you would not like him to know; never do any thing you would not like your mother to know.

I warn you that if you do any thing you would be afraid or ashamed to have your mother know, the day will surely come when, with tears and anguish, you will wish you had not done it. Make up your minds from this very hour that you will not do any thing you would be unwilling to tell your mother. If you see or hear any thing that you think wrong, or that you do not think quite right, go at once and tell your mother all about it, and it may

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save you from great grief and suffering in the future.

Now do not think that I am over-anxious, and "fussy," for it is only your welfare I have at heart in writing as I do. You must remember that I have seen much more of the world than you have, and know better how much evil there is in it, and that it is my love and sympathy for you who are to grow up and become women, wives, and mothers, that prompt me to give you this warning, and throw around you all the protection in my power.

Perhaps your mother never talks with you about the special sins which girls are liable to commit; or about the special pitfalls into which they are liable to stumble; well, my mother never talked with me about these things, either —I think it would be far better if mothers would do it—but I was saved simply because I would "*never promise not to tell my mother.*"

Again I say, if you have any habits which you would not like your mother to know, *break them off at once*, or they will bring upon you derangements, diseases, suffering, ruin, and death. Do not think you will break off to-morrow, but do it now, for every day you put it off makes the habit the more difficult to overcome.

Shall I tell you something that will help you to break off evil habits, if you have formed them? Well, another thing my mother used to tell me was to "KEEP THE MIND CONSTANTLY FILLED WITH PURE THOUGHTS, AND THERE WOULD BE NO ROOM FOR THE IMPURE TO COME IN; for so long as a measure is *full* of something *good*, it will not hold any thing that is *bad*."

Now if you will never allow yourself to *think of any thing bad*, if you will be always thinking about what is good, and beautiful, and pure, and lovely, you will be pretty sure not to *do* any thing that is bad. But perhaps I will tell you more about this another time.

I want to tell you now, however, that you have something else to do besides just breaking off your own bad habits. Many of you have, probably, some younger sisters, and it is your duty to watch over them, win their confidence, and see that they do not learn or practice the evil habits that you have, perhaps, been taught.

Teach them the great truth my mother taught me, that "It is a dangerous secret that a girl can not tell her mother." If you learn this truth yourself, and teach it to your sisters and try to influence your playmates to do the same, you will be doing a great deal toward helping on God's glorious work of reform, and making "his kingdom come, and his will to be done on earth as it is done in heaven."

I have a great deal more to say to you, but this is enough for once. I wish every young girl who reads this would write and tell me that she means to follow the rule that I have followed, and profit by my advice.

If I could get in correspondence with every young girl in the United States, I have faith that I could thereby do much to make them healthier and happier women, and thus improve the physical and moral strength of the next generation.

SIZE OF RED-BLOOD CORPUSCLES.—These blood globules of all the warm-blooded quadrupeds, with the exception of the family of Camelidæ, resemble those of the human species in shape and structure. They differ, however, in size, being usually rather smaller than in man. There are but two species that are known to be larger than in man, namely, the Indian elephant, in which they are 0.2700, and the two-toed sloth (*Bradypus didactylus*), in which they are 0.2800. In the musk deer of Java they are smaller than in any known species, measuring rather less than the 0.1200 of an inch.

DIAMETER OF RED GLOBULES.

Ape,	0.3400
Horse,	0.4600
Ox,	0.4200
Sheep	0.5300
Goat,	0.6300
Dog,	0.3500
Cat,	0.4400
Fox,	0.4100
Wolf,	0.3600
Elephant,	0.2700
Red Deer,	0.5000
Musk deer,	0.12000

In all these instances the form and general appearance of the globules are the same. The only exception to this rule is in the family of Camelidæ (llama) in which they present an oval outline.

In the three remaining classes of vertebrate animals—birds, reptiles, and fish—they are oval in form, and contain a colorless granular nucleus. The frog measures 0.1200 of an inch; Menobranchus, the great water lizard of American lakes, 0.400 of an inch; and in Proteus anguinus, 0.357 of an inch. R.

MR. JONES, you said you were connected with the fine arts; do you mean that you are a sculptor?" "No, sir, I don't sculp myself but I furnish the stone to the man what does it."

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The Inebriate's Lament.

BY GEORGE W. BUNGAY.

In Binghamton among the hills,
Near where the Susquehanna spills
Her tranquil tide of clearest waters,
A hospital, to cure the ills
That flesh is heir to, curbs the wills
Of tippling sons and drinking daughters.

Your cheeks may turn as red as wine;
But woman, more than half divine,
Sometimes forgets that she is woman,
And drowns the angel in the cup
Which her white hand holds often up
To lips whose appetites are human.

Here walls and towers have grandly "risen"
Of this half-hospital, half-prison;
And I came here, an interloper,
To spend an hour, and caught the strain
Of one whose dismal notes complain:
"Life has no pleasures for the toper

"Shut up within these walls. I try
To put the throat-fire out when dry;
In vain I scold the patient waiter.
I wish these hills Vesuvius,
And the eruptions found on us
Would light us to the burning *crater*.

"Boast, if you please, that rooms are neat,
That markets yield their best to eat;
Who cares a fig for costly dinners,
When water is our daily drink?
It is not fit for use, I think—
For since the flood it tastes of sinners.

"Let poets sing of rain and dew—
This mountain moisture's good for you,
But not for me in any weather;
And I shall stand from pumps aloof,
Although my mouth is water proof
As rubber lined with patent leather.

"All argument is lost on me,
For in the Book of books I see
The records of the greatest slaughter;
When Noah built his mighty ship,
'Twas not the wine that touched his lip
Which drowned the world—no, it was water.

"Don't prate to me that birds and flowers
Drink the soft rain that falls in showers;
This begging questions and this shirking
Won't answer. 'Twas not meant that man
Should be a mere cold-water can,
Or Nature would have shaped him like a firkin.

"How came I here? alas! and whence?
There is a strange coincidence—
Ill wager all my ample bounty
That all the inmates of this place
Can geographically trace
Their footsteps here through Bourbon County.

"Look up, and see! the hills are *high*—
Even the streams are running *dry*!
The graceful Susquehanna wends her
Way, as though she too would like to take
A drop or two her soul to wake—
The wind, likewise, is on a bender!"

In sober speech I now will say,
The golden hours speed fast away—
For pleasant scenes and deeds beguile 'em;
So, in a glass of *aqua* pure,
I drink a toast: "The drunkard's cure
Is the Inebriate Asylum!"

The Body as a Servant, and not as a Lord.

BY REV. J. C. HOLBROOK, D. D.

It has been sarcastically said of some ministers of the Gospel, that they are like guide-boards in the highways—pointing out the true path to others, but not going in it themselves! And so the Apostle Paul suggests that one may proclaim the way to heaven, and yet never himself reach that goal. "I keep under my body," he says, "and bring it into subjection, lest when I have preached to others I myself should be a castaway." I do not suppose that he meant us to understand from this that he had any serious doubts as to his good prospects for eternity, for elsewhere he manifests abundantly the full assurance of hope which he exhorted others to attain; but he knew that his salvation was to be consummated, under God, by watchfulness on his own part against temptation, and by a persistent warfare with "the lust of the flesh, the lust of the eye, and the pride of life."

He speaks in one place of the "flesh lusting against the spirit, and the spirit against the flesh," and these, he says, "are contrary." He was fully aware of the danger to which he was exposed of falling into sin through undue yielding to the physical appetites and passions, or of coming short of God's requirements by allowing the soul to come into bondage to the body through disease and debility and indolence superinduced by over indulgence.

But in all this we find no trace of that false philosophical theory taught by the ancient classic moralists, and which was incorporated

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into the Manichean heresy of the third century, and which now forms a part of the creed of the Roman Catholic Church, and lays at the foundation of their absurd system of multiplied fasts, flagellations, and other austerities and self-tortures, and celibacy, which the Apostle classes among "doctrines of devils"—the theory that the body is the natural enemy of the soul, and the chief seat and source of moral evil.

No, the great Apostle had no such idea of the body, the handiwork of God, so "curiously wrought," and so "fearfully and wonderfully made." The body is not the enemy, but the useful, the indispensable servant and instrument of the soul, at least in this world, and a body possibly in any world. See Isaac Taylor's "Physical Theory of Another Life." We know that the future perfect and complete exaltation of the soul is to be in connection with the glorified body.

In the words of another: "Both the Old and New Testaments speak of our corporeal system with honor.* They never represent the body as the work of some inferior and perhaps malignant deity, who so contrived it that we should through it be constantly tempted to sin. It is not only the work of God, but the temple of the Holy Ghost—the only visible temple in which God has dwelt since the glory passed away from the inner sanctuary at Jerusalem. Death is not to destroy it. 'Sown in corruption, it is to be raised in incorruption; sown in weakness, it is to be raised in power.' The Incarnation and the Resurrection have redeemed it from contempt. When we listen to the desolate words beside the open grave: 'Dust to dust, ashes to ashes,' we must remember that 'all that are in their graves shall come forth'—the gracious form, the kindly face have not vanished for ever. The *body* is to re-appear among the shining splendors of heaven. The body, therefore, with all its instincts and wants, is not to be treated as the enemy of the soul, but as its friend—a friend of inferior rank, but still a friend. It asks for warmth, and clothing, and food, and shelter, and for rest after labor, and it should have them all."

The appetites and passions are not in themselves sinful, nor necessarily the sources or inlets of sin to the soul. Like the world, as the Apostle says, we must "use" them as not "abusing" them. It is possible, and every man ought to "present his body a *living*"—not a dead—"sacrifice, *holy and acceptable to God*, which is our reasonable service." Like many other things, the body may be transformed from a blessing into a curse to the soul. It may be its useful *servant*, or become its despotic *lord*. As a servant, it is invaluable; as a master, it is an insufferable tyrant. It is therefore every man's duty to imitate the Apostle and "keep it under," and "bring it into subjection" to the higher and nobler nature—to the reason and conscience.

There are two states or conditions of the body when it gains the mastery and lords it over the soul: first, when it is weakened and debilitated, or when its functions are disordered by disease; and secondly, when its appetites are unduly developed and inflamed from over-indulgence and want of restraint. And it is difficult to decide which is the more pitiable case, that of a soul in bondage to an infirm and enfeebled body, or a soul enslaved by a body in which "the course of nature is set on fire of hell," the appetites and passions burning and raging and demanding new fuel continually for the flame.

It may seem paradoxical to speak of the body as lording it over the soul through its own weakness and disordered functions. But it is a fact of daily observation, to use the equally paradoxical language of Paul, with a little different application, that "when it is weak, then it is strong." I have never seen or read of a more pitiable slave than the individual who is for ever pining and languishing under real or imaginary physical disorders, while yet not entirely prostrated by disease. He is not only shut out from all enjoyment of the world, but from the employment of his nobler powers. He grinds in the prison-house of the Philistines who have him in captivity. Shut up in his gloomy inclosure, he can not go forth on errands of usefulness, nor to survey the beauties of the external world, or to mingle with and enjoy the society of friends.

I know that disease is sometimes unavoidable, from hereditary and other causes, but in a majority of cases it can be traced to indiscretion or overt sin—the violation of God's laws. But whatever the cause, the result is the same—the soul becometh the slave of the body. It is fettered and hampered as to the exercise of its fac-

*One night during the last sickness of the late Archbishop Whately, and near its close, one of his chaplains, who was watching beside him, in making some remark expressive of sympathy with his distressing sufferings, quoted the words from Philippians iii. 21: "Who shall change this *vile body*;" the Archbishop interrupted him with the request: "Read *his own* words." The chaplain, not being able to find the Greek Testament at the moment, repeated from memory the literal translation: "This body of our humiliation." "That's right," interrupted the Archbishop, "not *vile*—nothing that God made is vile."—*British Quarterly Review, January*, 1867; *reprint in Theological Eclectic for May and June*, 1867.

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ulties for the great ends for which they were given. Pre-occupied with the pains and demands of its master the body, it has no time and no heart for devotion or for the claims of duty. Confined in its bodily prison, it can not, I repeat, roam abroad in pursuit of either employment or pleasure. The slave on the Southern plantation, in the palmiest days of "the peculiar institution," was not more absolutely denied the exercise of the "inalienable rights of life, liberty, and the pursuit of happiness," than is such a soul in such a body.

How manifestly, then, is it the duty of every individual to use every possible means to avoid coming into such bondage to the body, or to escape from it if he has already become thus enslaved. No man has a right voluntarily to sell himself into slavery, or, if in that condition, to remain in it longer than is absolutely necessary. "*If thou mayest be free, use it rather,*" is the Apostle's direction to the bondman. It is every man's privilege—nay, duty, to maintain his freedom for the employment of his powers to promote his own highest temporal and eternal well being and that of others. The slave can not fulfill the great duties of life in the family, in the community, in the state. He is degraded from humanity to chattelism and the condition of the brute.

Every man, then, is under the most solemn obligation to guard against the enslavement of his soul, by keeping his body under and bringing it into subjection, studying for that end, the laws of his physical nature, and maintaining his corporeal part in a healthy state. He must not allow it to over-master and bring into bondage his nobler nature. By cleanliness, by exercise, by diet, he is to keep or restore, if possible, its normal working, so as to make it in the highest possible degree an efficient servant or instrument of usefulness.

It is as much a duty to regard one's health as one's morals; to care for the body as the soul. "A sound mind in a sound body" is the indispensable condition of the highest usefulness and happiness—of the accomplishment of man's mission on earth. It is a sin to be sick when by any possibility it can be avoided, and in not a few cases there is as real occasion for humiliation and repentance under the attacks of physical disease as when one falls into open sin.

Nor should we overlook here one mode in which, in this country and in this period of our national history, multitudes of souls are brought into bondage—viz., by the overtasking of the powers of the body. Regardless of the limits which Nature has set to the uninterrupted employment of the physical energies, they plunge into business, and, allowing themselves no time for necessary relaxation and amusement, they at last "break down" and become confirmed invalids, or hypochondriacs, or monomaniacs, or in some form the slaves of a disordered physical and nervous system. The body ceases to be a fit instrument for fulfilling the high designs of the soul, and from a servant is transformed into a master, demanding thought, and care, and labor to be bestowed on itself, which, in a healthful state, might be given to worthier objects. Many a man has thus, in his haste to be rich, or his eager grasping after political power and position, or literary or scientific fame, been reduced to slavery to his body for a large portion of his days.

But secondly, the soul is brought into bondage to the body when, by undue indulgence of its passions, it comes under the control of its "imperious lusts." Hence an inspired Apostle warns us to "abstain from fleshly lusts that war against the soul." By this, of course, he does not mean that our natural and instinctive physical appetites are never, or in any degree, to be gratified. "Abstinence" here is to be understood in the sense of regulation and restraint within due and healthful limits. To *abstain* literally from all "fleshly lusts," *i. e., desires,* would be suicide.

The body, for instance, demands rest and relaxation after labor, and it can not long continue to fulfill its functions if these are denied it. But there is such a thing as falling into habits of *indolence* under pretense of rest, and of *dissipation* under the name of relaxation, and when these habits become fixed, the body ceases to be the minister of the soul and becomes its lord. And there is great danger in both these directions.

Man has sometimes been defined as "a lazy animal," and he is averse to toil, except under the stimulus of a solemn sense of duty, or a controlling desire to achieve some end deemed of great importance. Happily, God has graciously placed most of us in circumstances where we are compelled to toil and exercise our physical and mental powers.

But there are those who allow their native indolence to overpower their ambition and to resist all motives to effort. Their love of ease and their indisposition to labor quench all high and holy and worthy aspirations. "They never," in the language of another, "can be induced to put out their strength, and never do any thing with their might. We all know persons who continue to the end of their days 'un-

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filled prophecies;' who possessed genius, and perhaps in youth showed promise of high achievement, but who leave the world with their fortunes unmade, or their poems unwritten, or their schemes unorganized, or their social and political reforms unattempted. They think they are very harmless and even praiseworthy people because they avoid outbreaking vice, but they accomplish nothing great or good, and their indolence grows upon them until it spurns the control of the soul, refuses to execute its commands, and chains and hampers all its powers. Their habit destroys all intensity and depth and vehemence of religious feeling, spiritual impulses are enfeebled, every act of worship or service is a weariness, and 'of the earth earthy,' they are incapable of the diviner movements and joys of spiritual life." This "fleshly lust wars against the soul," and if not itself subdued, will subdue its legitimate master.

And then as to the danger in the other direction, to which allusion was made—viz., that of *dissipation*, how often do we see the soul brought "under" by the body and kept in "subjection" to vicious propensities. There must be relaxation, but it may be carried, and often is, to the extreme of dissipation, whereby habits are formed that rise superior to the control of the higher nature.

Among the habits that enslave the soul may be named *gluttony*, or the undue indulgence of the appetite for food. There are those who find their chief and most congenial occupation in studying what they shall eat, and in gratifying the palate with the luxuries of the table. This is one of the lowest and most disgusting of vices. It may not be so widely injurious to society as some others, but it is not less debasing to him who practices it, and no less ruinous to the health and morals, unfitting the body for the high purposes of the soul. The soul of the glutton does not and can not keep the body "under," but is itself its slave.

And the same thing is true of the *licentious* man. Habits of lewdness eat out all the finer sensibilities, and disqualify for pure and holy emotions and attachments, and grow stronger and stronger by indulgence, until lust reigns over the man and leads him captive at its will. Reason and conscience remonstrate in vain. All barriers are overleaped, and there is a wreck of the moral nature, and the victim "utterly perishes in his own corruption." Alas, how pitiable the condition of one, of either sex, who, instead of "keeping under the body and bringing it into subjection," has allowed it to run riot in this direction until it has broken away from all control of the moral powers!

And finally may be named in this category the slavery of the soul to the bodily appetites in the case of the lovers of *strong drinks* and other stimulants. Alas! how many thousands of illustrations can be found in all classes and conditions in life—men of brilliant mental endowments, and capable of almost any achievement of genius—poets, historians, artists, inventors, philosophers, and even divines; men of the highest capacity for statesmanship, for business, for usefulness in any department, who, coming under the habit of stimulating the system with alcoholic drinks, or in some cases with narcotics, have brought themselves into bondage to their bodily appetites and lost all self-control. Had they followed the Apostle's example and "kept under their body and brought it into subjection," how different had been their record and their influence on the world. The saddest sight the world looks upon is that of the multitudes of such slaves of bodily habits as abound to day in this land. Could their emancipation be accomplished, and the slavery of strong drink be abolished totally, it would be an event infinitely surpassing in magnitude and importance the overthrow of the system of negro bondage over which heaven and earth have so rejoiced.

But, alas, how discouraging the prospect of such a glorious achievement. As sixty thousand victims sink annually into the grave, other sixty thousand or more come forward to fill up the ranks of these slaves and victims, and put themselves under the yoke. The young are being continually enticed to taste the intoxicating beverage, and to form the habit of indulgence which soon becomes fixed. The temperate drinkers are nourishing and feeding an appetite which will soon pass the bounds of all control, and even females are said to resort to drug stores and other places where they are secretly furnished the beverages that lead to drunkenness and ruin.

And the habit of using stimulants—alcoholic or narcotic—once formed, there is no longer liberty. The soul can not shake off the yoke or burst the fetters. No motive, no consideration that can be set before the mind, in a vast majority of cases, is sufficient to rouse the soul or enable it to break away and go free. And this is what renders such slavery so appalling—so hopeless. Any thing, every thing in time or eternity, will be sacrificed for the sake of indulgence, until at last God says of such an individual: "He is joined to his idol—let him alone," and he is lost.

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nd all these consequences that have been rayed are the result of failing to "keep un- the body." And here we have the secret he failure in life and of the eternal ruin of usands upon thousands. It was not want of tal and physical endowments, often of a high er; it was not for lack of opportunity of em- ring their powers; it was not from any ar- ary appointment of God; it was their own ure to bring and keep the body in "subjec- ," and to maintain the sovereignty of the her nature over the corporeal.

n this subject, too, we have the clue to the ure of many professed Christians to make h attainments in piety, and to accomplish thing noteworthy for Christ and the world. iat miserable, ignoble lives are often led by mbers of the Church of Christ! How slug- n, how spiritless, how morally weak, how less are many so-called followers of Christ! d how uncertain are the spiritual prospects, l how variable the religious experiences of ne who ought to be strong and joyous and sistent, living examples of the power of the spel to inspire with zeal to do good with ope, which is an anchor of the soul!" And y is this? Is it not because the body has rmastered the higher nature, by which it ght to be kept "under?" Fleshly lusts, in war against the soul, have gained the vic- y, and the moral man has become a slave, tead of "the freeman of the Lord."

There is no true freedom but that which rist imparts, and which flows from hearty ceptance of the Gospel, and conformity to its rit and principles.

He is the freeman whom the truth makes free;
And all are slaves beside."

It is the high and noble motto of the real ristian, as an apostle says, "whether he eats drinks, or whatever he does, to do all to the ory of God," and he who acts on this princi- will thereby keep all his lower propensities subjection, and be useful and happy here, and ultimately prepared for "glory and honor d immortality" hereafter.

HOMER, N. Y., *September*, 1867.

A COUNTRYMAN going to market with a ad of pork was met by a young girl who ry genteelly made him a low courtesy, when exclaimed:

"What! do you make a courtesy to dead gs?"

"No, sir," answered the girl, "to a live one."

Letters to Ladies.

BY MRS. E. B. GLEASON, M. D.

SLEEP.

"TIRED nature's sweet restorer, balmy sleep!
Who, like the world, his ready visit pays
Where fortune smiles; the wretched he for-
sakes;
Swift on his downy pinion flies from woe,
And lights on lids unsullied by a tear."

—YOUNG.

LADIES—As we have had in this series much of Work, a little of Rest, and somewhat of Society, it seems time for some Sleep. Women are supposed to be most largely endowed with the soothing elements. Hence, among the household divinities, the wife should be as the goddess of sleep, giving every one their portion in due season, or, at least, so ordering the ways of her household as will best conduce to this happy result. The peace and prosperity of every family depends largely upon each member having the requisite amount of sleep. Hence the lady of the house should look after all—from master to servant, from mistress to maid, from the youngest child to the grown-up lads and misses—with reference to this all-important point: that is, do they sleep long and well. The mother often says, by way of excuse: "The baby is cross for want of a nap." The same apology might often well be made for children of larger growth; they, too, are often so tired they can't be good, and still do not know that it is sleep they need. During the early years of our work in the invalid world, I was impressed that much irritability and multiplied infirmities were induced by lack of sufficient sleep, and so gave to "The Water Cure Journal" my thoughts on this subject. Subsequent observation has confirmed those early opinions, and so what I have to say now will be in substance what I then said. First, let us take a physiological view of our sleepy subject. Our bodies have two classes of functions, called the animal and the nutritive. The former—sometimes called those of relation—connect us with the world about us, and tire by use, by activity, and hence the need of that temporary suspension of action which we call sleep. Thus the mind, muscles, eye, ear, and indeed every sense, every voluntary power, must have its period of rest, that the system may repair its waste of nervous force induced by their action. The nutritive functions continue their work from beginning to end of life with little variation. Or, in other words, the involuntary forces of our

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bodies go on, with but slight modification, both when we wake and when we sleep, year in and year out. To illustrate: The heart keeps up its steady tick-tack by night and day, like a true time-keeper, to the end of our pilgrimage, even if it is fourscore years and more, while our voluntary powers weary with use. Thus the feet tire with walking, the hands with working, the eyes with seeing, the ear with hearing, and even the tongue with talking. Then the only perfect rest which can come must be by sleep, which is a torpitude of the voluntary organs, while the involuntary continue their accustomed action. It is by this means that the great nervous center of animal life is renovated. Hence sleep is as needful as food to sustain life, and it is supposed persons can live longer without eating than without sleeping. Among the inventions of the ancients for human torture, that of keeping the victim awake till death ensued is said to have been the most terrible. This we may well believe, for some of the most distressing nervous diseases arise from want of sufficient sleep, and those, too, which it is quite impossible to relieve by any remedial means.

Noise and mental excitement tend to keep the brain aroused to activity; but at length, if we are well, sleep draws on, even when the internal effort and external surroundings conspire to ward it off. So the fatigued soldier has often fallen asleep amid the discharge of artillery. An engineer slept within a boiler while heavy hammers were beating on the outside. In sleep, as in every thing else, we are influenced by habit. If accustomed to sleep where it is still, we are greatly disturbed by noise. If accustomed to noise, we wake when it ceases. A proprietor of extensive iron works sleeps sweetly within the sound of sledge hammers, forges, and blast furnaces, but awakes immediately if any interruption occurs during the night. The motion of the cradle and the singing of the nurse, which are soothing to an infant accustomed to that sort of quietus, would wake a child unused to them. We also have a story of the snoring husband, whose wife tried in vain to sleep when her "gude man" was away, until "Betty the cook" bethought that the sound of the coffee mill was similar to that made by her snoring master, "and so kept that agoing" until it soothed her mistress to sleep. But it is a bad habit to become dependent on books, coffee mills, cradles, or any external aid to invite sleep. Children who must be rocked, read to, laid with, or have a light in the room till they are asleep, are almost invariably nervous, excitable, over-sensitive—a heavy tax on mother, aunty, nurse, and all hands. We remember one such who was always walked to sleep in the arms of a nurse; but the child grew heavy, and the nurse grew tired, and so one day she gave out, and the baby could not go to sleep. The mother tried the work, but found it too heavy; next the fond father undertook the task, but grew weary of the steady to and fro in his own private room, and for a change went to the wood house and mounted the wood machine. And so papa walked, the machine rolled, baby laughed, and all went well for a time. But by and by the father grew tired of playing horse, but, not being way-wise in wood machines, he did not know how to stop it, or to get off when it was going. Our Pat being just then out of hearing, he called a long time in vain for help, and so got a good sweat on a warm summer's day, and was never known to say again that it was easy work to keep baby quiet.

Now-a-days most little ones get more tending than when we were of that class, if we remember rightly. The result of all this attention is too much excitement, too little rest. But even in these "degenerate days" we know a beautiful blue-eyed baby in the Chemung Valley, who of her own free will sleeps sixteen or eighteen hours out of the twenty-four, and when awake is bright, lively, and happy as possible. From 8 in the evening till 9 or 10 in the morning she sleeps sweetly. She then breakfasts, and lies on the floor amusing herself with her own private gymnastics, for her limbs are not fettered by long, heavy skirts. At about 12 o'clock she dines, and then sleeps until 2 or 3 o'clock. Thus the long summer days go by, the happy mother finding time to not only tend baby, but to attend to her household cares—a mother whose early medical training has not blighted any domestic grace, but rather brightened and ripened them all, so that she not only makes the best butter in the valley, but takes the most intelligent, loving care of her children. If they are sick or irritable, she knows whether it is food, sleep, or a bath that they need. Here, often, a boy is sent to his room for a nap for some perversity of spirit, which would have cost him quite another kind of discipline with a mother less judicious.

We trust our readers will not deem that ours is an iron rule—that children should never be soothed to sleep by any other. Of course, there are emergencies of sickness, over-weariness, peculiarities of temperament to be met. But, as a general rule, children will take to sleep, as to eating, without much petting, if they are well managed. We remember a little fellow who

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n his earliest infancy onward was seldom
it to sleep," but was simply picked up and
in his crib, and so took his nap without
ing or crying. One sultry summer's day
ried in vain to take his P. M. nap. He cooled
self by turning first on one side and then on
other; next holding up one leg and then
other. Now he soothed himself by count-
his fingers and toes, and next by putting
thumb in his mouth. But all to no pur-
; he was too restless to sleep. At last he
d out: "Mamma, please give me a love
and that will help me to go to sleep, I guess."
love pats, a series of them were given, and
ss, too. Soon after, the fringed lids lay
tly over those twinkling eyes, and the rest-
limbs were resting in sleep. Many a child
arger growth has felt just this want of be-
soothed when wearied and "worried."
y few of us are strong enough to always
d alone, or even rest alone. Sometimes we
not willing to ask this aid; perchance we
not know we need it, or who can give it.
we have all at times felt an infusion of
ngth, of resignation, of returning self-pos-
on, coming from the heart, the eye, the
l of another. Sometimes we fall beneath a
which the finger of a friend would have
tened, or, better still, have steadied us in
ing, by soothing us to sleep, and so with
would come the strength to do the work
ndure the sorrow. When we sleep too lit-
ur sensibilities often grow abnormally acute,
at sleep is well nigh impossible. But if
nabits are healthful, the need of sleep makes
ur senses more and more obtuse until they
o act. The power of the will over the mus-
is lessened or lost—so eyelids fall, and, if
g up, arms drop, nodding ensues, as seen
urch when the brain has been soothed by
od sermon. Of the senses, sight fails first
n we go to sleep, then taste, next smell, and
y tact or touch. The awakening is just the
se of this order—that is, the last is first.
, or the sense of feeling, is the first aroused,
e change our position if we do not lie com-
bly, and draw up the bed clothes if we are
even when we are in every other respect
p. This sense seems to be a sort of senti-
which sleeps so lightly that it can look af-
ur physical wants and personal safety while
nore delicate powers rest soundly. Of this
ad a most amusing illustration a few nights
in our large family. A little boy went to
oom at an early hour, locked the door, and
sleep. When his mother came she tried in
to arouse him, and was soon joined by her
friends along the hall, and such a concert of calls, raps, kicks, and rattling of the door was never heard before in our quiet household. The pass key could not be used, for the key was left in the inside of the lock. By means of a ladder the window was reached, but the blinds were fastened on the inside. Next, heads were thrust in at the ventilator above the door, and calls by voices sharp and soft, familiar and unfamiliar, were tried in vain, making not the least impression on the sleeper. At last it was suggested that, though his ears were locked, the sense of touch never slept as soundly. So a tall man, with long arms and a longer fishing rod, mounted a chair and thrust head and shoulders through the only orifice, the open ventilators, giving the sleeper sundry taps, or "pokes," as he said, with the fishing pole, which operation soon proved efficient, without harm to the patient.

During sleep respiration and circulation are retarded, hence heat is generated more slowly, and so, if insufficiently covered, we take cold more readily than when awake and active. Digestion, too, is more tardy, so we eat three meals in the twelve working hours, and none for the next twelve. Good sleep is so refreshing that we have the old French proverb: "Who sleeps dines." But a watcher wants a second supper or an early breakfast.

When sleep is complete the brain seems to be in a state of perfect rest; but when only partial, as in slumber, ideas flit in a disorderly manner, constituting a sort of delirium. During this kind of incomplete sleep the external sensations are not wholly at rest, hence impressions made on them may excite the most exaggerated impressions on the brain in the shape of dreams. So Des Cartes thought the bite of a flea to be the point of a sword. An uneasy position of the neck may give the idea of strangulation. An undigested supper may cause the sleeper to feel as if a heavy weight were resting on his stomach instead of *in* it. A person having a blister applied to his head dreamed that he was scalped by the Indians—a slight mistake! Many times our mental work marks our dreams. The minister writes sermons, the student solves problems, and the doctor decides what to do with his patient. These things dreamed out are often better done than when we are awake even. But this sort of night work wears rapidly, because it keeps the mind at work when it is already overweary; and, however correct those solutions are which we seem to sleep out, they show that the tired head needs rest or a change of occupation.

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Persons of much mental activity are more likely to be wakeful than those given to manual labor, while the former need more sleep, for the head work expends nervous force more rapidly than that of the hands. Solomon says: "Much study is weariness to the flesh," and the kind of weariness which comes from an overworked brain with too little sleep is the worst kind to bear, and the various nervous affections which arise thereby often make the sufferer very inconsistent and unreasonable. The "blue Monday" of the minister comes largely because the intense intellectual and emotional life of the previous day have prevented his sleeping well the succeeding night. To be sure, we often get so weary in body and spirit that it takes more than one night to rest us up "all right." But if we get a good rest the first night, we are not blue and tired the next day, but sensible and full of courage that we shall soon be rested up. Ministerial labors would be less wearing if the last Sabbath service were held at an earlier hour, so that the head could "cool off" and get quiet, and thus be ready for sleep at bedtime. But now that evening worship must be at 8 o'clock (the genteel time for fashionable amusements), instead of "early candle-light," or, better still, 5 o'clock, as of old, it must be near "the small hours" before a minister who has thrown his whole mental and spiritual force into his subject can get ready to sleep. So, too, his hearers, if they are held in head and heart to the point of devotional interest till 9 o'clock, certainly are not ready to go to sleep at that good old-fashioned hour for retiring to our beds.

Age, temperament, and constitutional tendencies make a difference with the amount of sleep required, and with the facility with which we can turn to it. Some kinds of mental labor expend nervous force more rapidly than others. The *purely* intellectual is less exhaustive than when combined with the emotional. Scientific persons live longer, sleep better, and are much more healthy and happy than those who belong to what is called "the literary world." The former seem to be cooled, steadied, and strengthened by the study of Nature as she is. The latter live more in the ideal, the imaginative, and so write "out of their own heads."

The finest descriptions of scenery, of love, of domestic peace, are not usually written by those who enjoy it, but by those who long for it. Hence their pictures are not of what is about them, but of their own intense inner life, which burns too brilliantly to burn long or steadily. So, if we had more good sleepers, the world would lack many a thrilling romance, and many a reader would miss a sleepless night.

There have been varied opinions as to whether men or women need more sleep; but it does not seem that sex can decide the question, but rather temperament, age, occupation, state of health, etc. It is said that women bear watching better than men, and it is no doubt true, often, that their more intense affectional nature, their more sensitive organization, will enable them to keep awake more easily; but these very conditions make them really need more sleep, in that they expend life force more rapidly. The cares of maternity wear more from the loss of sleep which often comes with them than from any other cause. So if I were writing to husbands I should say: If you want to keep your wives fresh and cheery, try to lighten their night care, or plan for them a morning nap by being mother *pro tem.* when the little ones have kept them awake. Women, while nursing, need much sleep if they are of delicate organization, otherwise they grow morbid, sensitive, and depressed, have a pain between the shoulders, in the back of the head and neck. For these pains they try all manner of plasters, braces, washes, etc., when more sleep would best mend the weak place. Mothers often tell me that, since the birth of such a child, or such a siege of family sickness years ago, they have been poor sleepers. The facts are these: they have been kept awake when they were over-sensitive from sickness, sorrow, or solicitude, till their nervous system became so irritable that, when there was no longer need to keep awake, they could not sleep.

Mothers often fail to realize how much sleep their growing children need, and so when they are sick or out of sorts give them all kinds of remedies but the right one.

There is a pretty theory that the bones grow only when we are asleep. If this be true, those boys who wish to "increase in wisdom and stature" had better go to bed in season. Every mother has noticed that her children have their times of growing tall and then of growing stout, and that they are much more sensitive and likely to be sickly when growing lengthwise than when growing breadthwise. While the former changes are being perfected, a larger amount of both bony and nerve matter must be furnished than for the latter. Hence, when your children are "running up tall," as you say, keep them from heavy work and late hours. If they complain of being tired, seem lazy or irritable, encourage them to sleep much.

Jesus has promised to give "his beloved

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p"—sleep so sweet that at the awakening re shall be no aching of the head or heart ause of the labors, the sorrows, or the sins ur earthly days. Until then, let us each, in small way, try to give to our beloved sleep he best solace for the past, the best source of ngth for the future.

MIRA WATER CURE, *September*. 1867.

A Harvest Home Gathering.

T is customary in the Keystone State to l "Harvest Home Festivals." Formerly, were in the hands of those who cared more the gratification of their appetites, than for nonstrations of gratitude for good crops. w, they are managed principally by men and nen who are truly thankful for abundant vests. The friends of Temperance are the lers in these delightful entertainments, and y usually select for their orators and singers sons who have distinguished themselves by ir advocacy of Temperance and kindred re- ms.

Here, on the banks of the Susquehanna, where den harvests have rewarded the farmer for toil, Nature has scattered her bounties with wish hand. The broad river rolls like a belt silver between the emerald hills, and neat ages embosomed in orchards, groves, and gar- s present a picture of rural life which rms all who look at it with appreciative eyes. Trade and Commerce join with Agriculture in ing life and soul to the scene. The slow ping conservative canal, and the puffing, ting, radical locomotive sweeping over the on epic" of the age—a "pair of rails" re- ding one of the earnest every-day realities of times. While I write the sun of August nking in the west behind a gorgeous cur- of clouds, and the hills seem like huge its asleep in their green mantles, while the iquil river, peopled with their shadows, rolls quietly "like the river of a dream." The is filled with the odor of new hay and mer flowers; the green and closely shaven dows are alive with cattle, "forty feeding as ." There is here "a myriad twining life, interlacing vines." Peace and Plenty im- ddised in each other's arms, light the fair lscape with unutterable happiness. Well the harvester be grateful for fields that ned with produce, for barns filled with bread man and beast, for the labor-saving ma- ery that gives them time for mental culture, the rains and sunshine and wind all bur- ed with blessings, for the droves of oxen and flocks of sheep, for the brave hearts and honest hands returned from the red harvest of war, for the white lily of peace in place of the flower of battle, with its petals stained with blood and its heart of flame. Oh, ye stalwart, sun-tanned, reading, thinking men, who stood behind our army with a large loaf in the hour of peril, meet in God's woods and rejoice; sing and speak and play on instruments of music, and the sky, like a cerulean ear, shall bow to the hill tops to catch your faintest syllable o thanksgiving!

The Spanglers and Engles, and others here- about show their thanks by their works. They would allow their grain to rot upon the ground, before they would give potations of alcohol in any form to their harvest hands, and they never would sell any part of their crops to be con- verted into whisky. A majority of the farmers in this neighborhood make principle their "interest, not interest their principle." You know, my good friend Holbrook, having been a frequent visitor here, and having a large parish of readers in this vicinity, that the bone and muscle, sinew and soul of society here goes for the right. The best people, the most intelli- gent and trustworthy, are friendly to freedom, to education, to temperance, to sanitary, and to dietetic reform. There are no signs of absolute poverty here, indeed there is work for all who are willing to put their hands to the task, and the reward of labor is sufficient to meet expenses and to keep the wolf of want from the door on a rainy day. You are the editor of a widely cir- culated journal—can not you persuade some of those persons who are crowded out of employ- ment in the city to seek work in the country? New York overflows with men, women, and children who live from hand to mouth, and suffer the inconveniences which are an interdict to human happiness. Call upon them through your columns to leave the garrets, cellars, lairs and burrows which Poverty provides for her un- fortunate children, and find shelter in the coun- try. Ask them to turn their backs upon the lanes, and streets, and avenues that reek with rum, and filth, and profanity, and turn their faces toward the green meadows and yellow harvest fields of the country. Appeal to them to re- move their children from the vast wilderness of marble and mortar, where miasma hangs over them like the breath of a foul monster, and hasten to the sweet fields where the atmosphere is impregnated with pleasant odors. Every fourth child in New York becomes the prey of disease and death before it attains the age of five years. The air they breathe is poisonous, the

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water they drink is impure, the food they eat is unsuited to their age and appetite. The enemies of health and life float to them on the wings of the air through broken windows, they swim to them through channels of lead pipe, they crouch by their side in unventilated and filthy rookeries, they lurk in the unripe and decayed fruits and vegetables in markets and on street stalls, they hide away in painted confectionery, and they flame forth in the twenty thousand liquor shops which turn their mother's milk into liquid fire. Add to all these foes of life and happiness the poverty and suffering and sickness and vice and crime, and the epidemics and dangers of city life, and you will see sufficient to lift up your voice like a trumpet and warn the poor to flee from the wrath to come. Every hour of the day the hearse is a black shuttle, weaving the warp of city life with the woof of the city graveyard.

I have been lead to these remarks by the signs of abundant and overflowing plenty of this Harvest Home Gathering. Here, red health mantles the cheek of child and maiden, and matron; the bronzed farmer, erect in his manhood, finds positive pleasure at his task, and his children inherit his vigor and independence.

At this gathering there were clergymen and soldiers of distinction, and the subjects of reform, education, temperance, and national affairs were discussed with freedom. A miniature Central Park was provided for the accommodation of the "harvesters" and their friends, and the day was filled "from rosy dawn to dewy eve" with true happiness, without alloy of accident or of bad behavior. This "mass meeting" of the grateful farmers and their friends was held in the county of Lancaster, within half an hour by rail of the residence of the great Commoner. G. W. B.

Farmers' Wives.

Tom Hood immortalized the toils of England's sewing women, who sat all day and deep into the nights in stifling London garrets, plying their needles to the sad refrain of "stitch! stitch! stitch!" the while their hungry eyes were ever getting hollower, and their pinched faces were "weary, wan, and worn. Countless mournful monodies, more touching than "the African Slave's Lament," have been written upon that dusky nation; but what poet's pen has ever chronicled the trials of the many overworked, broken-down American farmers' wives who have dragged, and still drag on, their appointed rounds of toil, and never think of lifting off the harness until it crumbles away from their poor weary frames at the welcome call of the Master who bringeth not only sleep but rest to those he summons—even death!

Cruelties are thoughtlessly sometimes, and sometimes recklessly, perpetrated by farmers on their wives thus: A child, or other member of a family, is taken sick in the night; the necessary attention almost invariably falls on the wife, to be extended through a greater part if not the whole night. Wearied with the previous day's duties, with those solicitudes which always attend sickness, with the responsibilities of the occasion, and a loss of requisite rest, the wife is many times expected to "see to breakfast" in the morning as if nothing had happened. The husband goes to his work, soon becomes absorbed in it, and forgets all about the previous night's disturbance. Meeting his wife at the dinner table he notices not the worn-out expression on her face; makes no inquiry as to her feelings; and if any thing on or about the table is not just exactly as it ought to be, it is noticed with a harshness which would be scarcely excusable if it had been brought about with a deliberate calculation. The same thing occurs multitudes of times during the nursing periods of mothers—how many nights a mother's rest is broken half a dozen times by a restless, crying, or ailing infant every mother and observant man knows. No wonder, then, that in many of our lunatic asylums there are more farmers' wives than any other class; for there is no fact in medical science more positively ascertained than that insufficient sleep is the most speedy and certain road to the mad-house.

Many a farmer's wife is literally worked to death, in an inadvertent manner, from want of reflection or consideration on the part of her husband. None can understand better than he, in plowing, or sowing, or harvest-time, that if a horse gets sick, or runs away, another must be procured that very day or the work will go behindhand. He does not carry the same practical sense into the kitchen, where the "hired help" leaves "without warning," or becomes disabled, although he knows "the hands" will expect their meals with the same regularity, with the same promptness, and with the same proper mode of preparation; but, instead of procuring other "help" on the instant, he allows himself to be persuaded, if the "help" is sick, that she will get well in a day or two, or in a week at the farthest, and it is hardly worth while to get another for so short a time. If the servant has taken "French leave," his mind fixes on the fact that it is a very busy time, and neither he nor a single hand can be spared; or

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that in the course of a week some one will have to go to town for some other purpose, and both these matters can be attended to at the same time. Meanwhile, the wife is expected not only to attend to her ordinary duties as usual, but somehow or other to spare the time to do all that the cook and washerwoman was accustomed to do, that is, to do the full work of two persons, each one of whom had already quite as much labor to perform as she could possibly attend to. The wife attempts it. By herculean efforts all goes on well. The head of the house perceives no jog, no hitch in the working of the machinery, and because no complaint is uttered thinks that every thing is going on without effort. Meanwhile, time passes, and (infinite shame on some of them) they begin to calculate how much has been saved from servants' wages, and how much less food has been eaten, and because still no complaint is made, the resolution quickly forms in the mind to do nothing until she does complain; but before that takes place she falls a victim to her over-exertions, in having laid the foundation for weeks and months of illness, if not of a premature decline and death. Let every husband who has a human heart consider this subject well.

"Sincerely it is believed that these statements ought to be written in large letters above the mantels of half the farmers of this country, and if over the other half also, it would not be labor lost, in favor of many a heroic and uncomplaining but outraged farmer's wife and daughter." True, happily true, it is, that a farmer's wife is not made to combine in herself the offices of wife, mother, housekeeper, and servant, all in the person of one slender, delicate woman, who never can find time to open a book for the cultivation of her mind, or to visit a friend for the interchange of social, kindly feelings and sentiments. The hardship of farmers' wives is not an inherent calamity, it is an accidental or thoughtless circumstance, which can be remedied promptly and for ever. It is because of this delightful truth that these lines are written.

HELEN MAR.

In a school recently a teacher took occasion to relate an anecdote of a little girl who tried to "overcome evil with good," by giving a New Testament to a boy who had ill-treated her. The story was appreciated, for a few minutes afterward one boy struck another, and being asked the reason, said he was "trying to get a Testament." This was a practical bearing altogether unexpected.

Home Treatment of Diseases.

BY E. P. MILLER, M. D.

Cholera Infantum.—This disease was formerly supposed to be peculiar to the Western Continent; but, although it is more prevalent here, it exists in other countries, being described under different names. The time of its appearance is confined to the summer and early fall, and for this reason it is often called summer complaint.

Children are liable to this disease from early infancy to three or four years of age, but it most often troubles those under two years of age, who are teething, especially if they have just been weaned.

Causes.—Some have supposed that heat was the exciting cause of cholera infantum, but it is less frequently troublesome in the Southern than in the Northern or Western States—less prevalent in the country than in cities, and prevails mostly in close, unventilated quarters, indicating that heat, combined with impure air, is essential to its development. Yet the children of those who are favorably situated do not always escape; but it is generally the puny, delicate children of scrofulous parents—those who are susceptible to even the slightest malarial influences, that become victims of this disease.

Whenever cholera infantum prevails in the country, it is almost invariably the case that there is some cesspool or pig-sty in the vicinity, sending forth vapors quite as poisonous as any generated in the cities, and that the victims have by some means eaten very improperly; it is often the case that the fault lies in constant stuffing and the quantity, as much as in the quality of the food. The digestive organs, being kept constantly at work, become wearied and irritated, and the extra amount of blood which is sent there to aid in getting rid of the extra food, induces congestion, inflammation, etc., and the result is cholera infantum.

Weak lungs, that can not take in good air sufficient to keep the blood pure; delicate digestive organs, that manufacture blood with difficulty at even the most favorable seasons; in teething, too, the system undergoes a change which disables it for resisting outward influences, and these are also causes of the dis-

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ease. But the chief difficulty lies in the diet. If the disease is contracted before the child is weaned, the prospect of its recovery is good, providing the mother is healthy; but if the little one is being "brought up by hand," its chances are slender. It is bad, too, if the child has just been weaned, and is not yet accustomed to get its nourishment other than from its mother's milk.

Crude articles of food, unripe or decaying fruits, new, unripe potatoes, cucumbers, green corn, melons, etc.—all of which little children swallow without chewing, for they have not yet the means of masticating—are almost sure to induce summer complaint in those who are at all inclined to be delicate. Swill-made milk, or, in fact, milk made by any except natural means, is a prolific source of this complaint.

Children are fed with all sorts of improper food, and at all hours of the day, because they cry for it, and by this means they are kept quiet for a time, mothers and nurses never thinking that by so doing they are endangering the little life, and making for themselves far more care and trouble in the future.

Symptoms.—Two phases of cholera infantum seem to present themselves—the acute and chronic; the acute resembling cholera in adults; violent vomiting and purging, intense thirst, discharges resembling whey, cold surface, convulsions, coma, collapse, death; this latter takes place usually in one, two, or three days. In some cases the violent symptoms cease and the affection becomes chronic.

In many cases the violent symptoms are never present; in such the diarrhea is the chief characteristic; vomiting may occur occasionally, or not at all; discharges watery, with mucous flakes streaked or spotted with green, or the green may prevail; they may be streaked with blood; appetite variable—sometimes voracious, at others entirely lost; abdomen seldom tender, but almost always distended and tense. The body emaciates rapidly; the skin hangs loose; nose and chin are pointed, and it would seem that some aged person had suddenly been reduced in size and assumed the stature of a child.

The little sufferer is peevish and fretful; abdomen and head may be hot, while the limbs are cold, and may be either dry or clammy. Sleep is uneasy, eyes remaining partly open; pulse rapid at times, at others slow and often irregular; tongue coated in center, with red edges; brain symptoms sometimes present, and the child lies half senseless, the head rolling from side to side. There is always hope in these cases if the system can be properly nourished till it shall have time to rally; the danger is that the child will die from lack of nutrition. With the use of drugs this disease is almost universally fatal.

A case we have just treated is in point: Charles Morton, twenty months old, city born and bred, had measles in the spring; has been accustomed to have whatever he cried for, and by this means has had diarrhea, intermitting, ever since. When summer came he was taken to the country; but similar causes produce similar effects, wherever the child may be, and at length, on the evening of August 20, the child was brought to us for advice. Cholera infantum was evidently present in the chronic form, the child having been sick three weeks; was taken with nausea and vomiting, quickly followed by bad-looking, greenish stools; appetite voracious, and as he would eat nothing but meat, candy, and sweet cake, he had been fed on these; the emaciation was great; so weak he could not stand; bowels swollen, tense, and tympanitic; eyes dull and heavy; constant picking at the nose and lips; fretful and worrisome; had been constantly in company, with not a moment's rest, except at night, when he was too weary to get much sleep.

The parents not believing in drugs, he had been packed, and sponged, and compressed, and thus, probably, his life had been preserved; but the improper diet and want of rest had prevented restoration to health. We considered the case very critical, and advised his remaining where we could watch him constantly. A quiet, airy room was assigned, and, as he was crying for food, a little boiled milk slightly thickened with fine flour was offered, but as he could not have what he wanted he would take nothing; perfect quiet was enjoined—not a word to be spoken in the room.

The child had four discharges during the three hours previous to our seeing him; one free discharge occurred afterward, after which a slight cool injection was given, and a small bit of linen wet in ice water applied to the anus. He soon fell asleep; pulse 104; breathing steady; eyes nearly closed; this sleep was

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interrupted till 2 o'clock in the morning, ien another discharge took place; the cloth t in ice water was renewed; slept well from s time till 7 o'clock, A. M.

Aug. 21.—About two tablespoonfuls of sh blackberry juice, slightly sweetened, was en, and after a time a little gruel—about ee spoonfuls—made of one part cream with o parts water, and a very little rice flour; lse 108; the quiet was continued, for the le one needed rest and proper nourishment, ough the indications were that it was too e for even these to restore him; he lay doz- ; and listless all day; was much worried at eiving necessary attentions; was rubbed two three times during the day with a soft vel wrung dry out of hot water, followed by ich friction with the hand; a warm com- ess at the bowels about two hours; a dis- arge from the bowels at 3 P. M., very fluid, th creamy mucus and substance resembling opped greens; pulse 116; blackberry juice d rice-flour gruel, not more than half a cup each, was all that was given during the y.

Between 7 and 8 o'clock, P. M., a change ok place—the parents thought the child dy- g; it was impossible to arouse him; the es were rolled up and fixed, and when we t to him the father had closed the eyes for e last time, as he thought, and the child oked like one dead. We found the pulse ll beating, but slow and irregular; an injec- n of warm water was given to secure a pas- ge from the bowels, and in a few minutes e child aroused, being very uneasy until the scharge occurred; this was very copious, een, and fetid. The ice cloth was still con- nued at the anus; a little beef tea was given, d the child soon fell asleep and slept all ght.

Aug. 22.—A little beef tea in the morning; passage from the bowels, still very bad, at A. M.; slight injection of cool water after ; nothing but blackberry juice and beef tea moderate quantities given to-day; sponging ice, same as yesterday; pulse 96. Another ssage at 4 P. M., and the child was so cross, ying for food all the evening, that you could arcely believe it was the same child that was parently dead the evening before.

Aug. 23.—Thorough sponging in tepid wa- r; no discharge from 4 P. M. yesterday till 10 A. M. to-day; brownish and watery, but not green; pulse 104; blackberry juice and beef tea given alternately; child cross as need be; was carried out of doors two hours to-day—would have been out before but for the rain.

Up to this writing (Aug. 31) improvement has been steady; beef tea, blackberry juice, and dry toast is all he has eaten; this is given in small quantities five times a day; discharges healthy and natural, but the least step astray as regards food would upset all we have gained. The little fellow is very cross because he can not have all the food he wants, but he asks for no other kind of food than that given him. He loathes milk; but to a child who would take it, we should give diluted cream slightly thickened with rice flour, instead of beef tea. No perspiration had been induced previous to this child's coming under our care, and the skin seemed shrivelled and lifeless; the hot rubbing, always done under the blankets, with the hand friction, and keeping him well wrapped in shawls, brought a perspiration very soon.

TREATMENT.—It may be inferred what treatment we would recommend from the above case. The skin must be made active! If the surface is hot, use cool or cold water instead of hot; a hot foot bath may be necessary, and is always good; head kept cool; tepid compresses on the bowels; pure air is indispensable; the child kept as quiet as possible; no noise or talking in the room, for this grates upon a baby's sensitive nerves even more harshly than upon those of an adult; the preparation of food should be intrusted to no one who has not the child's life at heart. The food should be fluid that it may be readily absorbed, and the quantity small, as the digestive organs are in no condition to work.

SCIENCE.—A French scientific gentleman illustrates the nervous telegraph system of the body as follows: "When a whale is harpooned, the nerve affected instantly telegraphs to the creature's brain 'Harpoon in tail,' upon which the brain telegraphs back 'Jerk tail and upset boat.'"

"WE shall know what are necessaries of life," said a country storekeeper during a severe storm, "as no one will venture forth to-day except to procure them." In the evening he found that most of his sales were yellow snuff and New-England rum.

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Answers to Correspondents' Notes and Queries.

BY A. L. WOOD, M. D.

Visitors and How to Feed Them.—"What course should a family, who live as nearly as possible according to the laws of health, pursue when visitors are present who have always been accustomed to living in the ordinary way? Should they prepare their food in their usual simple and healthful way, or should they do as the world generally does and get up a great variety of tempting dishes after the usual fashionable style? Please give us your opinion and the reasons therefor."

People who, as a habit, live in a proper and healthful manner should make no change for the worse when they have company. They should live well always, and live so as to keep well, and in such a manner as not to be ashamed to have people know how they live. What I mean by living well is not to see how many kinds of food one can have on the table at once, nor how rich and complicated it can be made, but to have a few kinds of the best, healthiest and most palatable food prepared in the simplest and nicest manner. Simplicity in cookery, as in nearly every thing else, is the true secret of success. If people will live in this way, as they should do for their own and their families' welfare, what necessity will there be for making any change when they have company? None at all. They give their visitors the best they have, what more can they do? What is good enough for one's self and those nearest and dearest is certainly good enough for mere friends and acquaintances. If they, your visitors, do not think so and care more for what they call a nice dinner than they do for your society, then let them go where they will be better suited—you will be the gainer thereby. Persons who go visiting just for the purpose of getting something better to eat than they get at home, and they are by no means few, are not very desirable visitors. The fewer of such friends the better.

Concerning the Voice.—"Please tell me what is good to strengthen the voice—something I have been trying to find out ever since I have been singing. By so doing you will oblige me and all the members of our society, for we can not get any books. We have tried everywhere, searched all musical journals and medical papers, yet we can not get what we want. I think a good article on this subject would do much good, for there are a great many like myself who would like to improve their singing but don't know how. As for me, I have been singing three years and my voice is not as strong as when I commenced. I do not know whether it arises from my straining myself by singing too loud, or from singing too soon after eating. I can not sing a song without having a long rest before I commence another. Please tell us whether smoking injures the voice or not, and if taking a bath every morning will improve it?"

The strength and character of the voice depend upon the condition of the vocal organs and the condition of the vocal organs depends, not alone upon their individual strength and culture, but upon the health and strength of the entire system. Whatever improves the general health improves the health of the vocal organs and consequently strengthens the voice. Whatever injures the health injures the vocal organs and weakens the voice. Smoking, chewing, drinking alcoholic liquors and hot drinks of any kind, over eating, and eating between meals, eating highly seasoned and stimulating food, singing in badly ventilated rooms, and singing soon after eating, are particularly injurious to the voice; while proper daily bathing and exercise, and regular and temperate habits, together with special vocal training, are indispensable to the greatest strength and endurance of the vocal organs and the highest culture of the voice.

During the past ten months Prof. Royce has been contributing a series of excellent articles to THE HERALD OF HEALTH, entitled "Hints for Improving the Voice and Strengthening the Lungs," which all persons who desire to cultivate and strengthen their lungs and voices should carefully study, and profit by the hints therein freely given forth.

Cold Water in Fevers.—"Would you allow a patient who has a violent fever, with intense burning thirst, to drink water? If so, what temperature would be best?"

I would have him drink just as much ice-water as he wished, and whenever he wished, as long as his thirst continued. It should be swallowed slowly, a few sips at a time. Bits of pounded ice are equally as good, and sometimes better. There is nothing which will allay the burning thirst and reduce fever as quickly as this.

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Causes and Treatment of Scarlet Fever and Measles.—"What are the causes of scarlet fever and measles, and what is the Hygienic treatment thereof, especially for children under five years of age?"

The predisposing causes of these diseases are the same as of most other diseases, viz.: unhealthful food, impure air and water, uncleanliness, intemperance in eating and drinking, overexertion, long continued exposure to cold and wet, drugs and other poisons, and, in fact, any thing which tends to exhaust vitality, vitiate the blood, and weaken the system. The exciting cause is a specific virus which works through the blood like a ferment, and which is communicated from one person to another through the air. The treatment should be much the same in both cases. The general indication to be fulfilled is to keep the entire surface of the body at the natural temperature. If the extremities are cold, warm them; if the head is hot, cool it; if the skin is below the natural temperature, give the warm bath; if the pulse is full and strong and the general temperature of the surface high, give the wet-sheet pack; if the eruption does not come out well give the warm bath or wet-sheet pack as the general temperature is low or high. Water should be drank to the extent of allaying the thirst. No food should be taken until the violence of the fever has abated, and then only small quantities of the plainest and simplest kinds. The bowels should be kept open, if necessary, by injections. The most perfect ventilation and cleanliness possible should be observed. The bed clothes should be frequently changed. The patient should by all means occupy a room wherein the sun can shine unobstructed by blinds or curtains. In scarlet fever where the throat is affected, cold wet cloths, or, in bad cases, pounded ice should be applied to the throat.

Coffee.—"Is there any nutrition in coffee? Please give the chemical properties."

Londe, a celebrated French writer on health, classes coffee among the "drinks which *stimulate*, but do not *nourish*." He says: "It accelerates the functions only by shortening their duration. It doubles the energy of the organs only by doubling the debility which follows." "*Coffee*," he adds, "*should be used only in those circumstances in which it is proper to use fermented liquors.* It is not on account of its liquid condition, or its high temperature, but on account of its *stimulating without nourishing*, that coffee, like tea, produces nervous affections." Drs. Graham, Alcott and other distinguished writers express the same opinion. Pereira, in his "Food and Diet" says: "Coffee has been the subject of repeated chemical investigation, but a good analysis of it is still a *desideratum*. The following, probably, are the constituents of raw coffee: Caffeic acid, tanno-caffeic acid, caffeine, wax, fixed oil, resin, gum, extractive albumen, lignine, sulphur, lime, magnesia, iron."

Gymnastics.—"I wish to fit up some gymnastic apparatus for myself and children. As I am a Methodist preacher and must move next spring, I do not care to expend for any thing permanent. What book will give me the best instruction without too much cost?"

"Bacon's Home Gymnasium" is the best and cheapest piece of gymnastic apparatus for home use. It can be taken down in a few minutes and moved from place to place, and with proper use will last a life time. Dr. Dio Lewis's "New Gymnastics" is the best instruction book for family use published.

Butter and Eggs.—"What is your opinion of good fresh butter and fresh eggs as articles of food? Do you consider them to be wholesome and nutritious food?"

Comparatively good and comparatively bad. Far better than fried ham, roast pork, sausages, mince pies, rich puddings and pastries, etc. Much inferior to good ripe fruit, vegetables, bread, etc.

Increasing Muscle.—"Is there a probability of enlarging the muscles by exercise after 40 years of age?"

Yes, to some extent, unless they have received thorough culture before; but they will not increase so much in size as they will in texture and firmness.

Best Drink at Meals.—"Please tell me what is best to drink at meals—water, milk, tea, or coffee."

Water is the best drink, milk the next, and coffee the worst. It is better not to drink any thing at meals.

Two Meals.—"Would it be better for a dyspeptic who is compelled to eat breakfast at 6 and dinner at 12 o'clock to eat no supper? I am at present doing so."

As a general rule, yes. There may be some exceptions however.

Repeated Queries.—I frequently receive questions which have been answered in some recent numbers of THE HERALD. Correspondents should look over their back numbers before writing, to see if their queries have not already been answered.

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THE EDITORIAL DEPARTMENT.



NEW YORK, OCTOBER, 1867.

WATER.

"To the days of the aged it addeth length;
To the might of the strong it addeth strength;
It freshens the heart, it brightens the sight;
'Tis like quaffing a goblet of morning light."

☞ THE PUBLISHERS *do not hold themselves as indorsing every article which may appear in* THE HERALD. *They will allow the largest liberty of expression, believing hat by so doing this magazine will prove to be more useful and acceptable to its patrons.*

☞ *Exchanges are at liberty to copy from this magazine by giving due credit to* THE HERALD OF HEALTH AND JOURNAL OF PHYSICAL CULTURE.

TOPICS OF THE MONTH.

BY M. L. HOLBROOK, M. D.

WHERE LIES THE ERROR?—Twelve Presidents of twelve prominent Colleges in the United States have each written an article for one of the most widely circulated literary papers in the country, and probably in the world, headed "Advice to Young Men." The object in view in securing these papers was a wise one, and undoubtedly they have already proved useful, from the hints they gave upon the pursuit of the various branches of learning. President Hill of Harvard leads off with a paper upon the study of mathematics. President Woolsey of Yale wisely endeavors to harmonize the opposite state of feeling between those who would make the classics most prominent in the educational course, and those who would hardly have them taught at all. The President of the College of New Jersey gives some hints to those entering College, mainly in reference to preparation, respect for rules, ambition to excel, etc. Dr. Goodwin of the University of Pennsylvania treats of "Historical Reading," another of "Rhetorical Culture;" others of "Self-mastery," "Rules and Principles," "Study of Mind," "Shall I go to College?" "Success," etc. There is one significant fact relating to these papers to which we wish to call attention. Not one of these twelve leading educators touched upon the subject of Health, Physical Culture, or the Study of Physiology. There is no hint in all their "advice to students" that the human body has need of training and discipline to keep it in high health and perfect running order. The views expressed were well enough, but they only reflected what was already known to all intelligent people. It seems to us as if the opportunity was a golden one for some one of these Presidents to express some new thoughts on education, with special reference to making it more equal in its effects on body and mind, so as to prevent that unbalance too likely to result from the college course; but we look in vain for even a vague hint in this direction. Why this ignoring of the body should continue longer it is impossible to understand. Such a course was perhaps all that could be expected in those ages now past when the body was only regarded as a clog and its claims were ignored, but now that it is known to be the home of the immortal spirit, it is time that education should give it a fair chance in the course of study; and if the Presidents of twelve of the most prominent institutions of learning in the country do not understand the situation, it is time they should exchange places with those who do.

While on this subject there is another point we wish to discuss briefly, and that is that education should consist much more than it does in learning TO DO, TO ACT, TO PERFORM. The successful men of the world are those who can accomplish the ends of life, who can by their own energy and skill bring about grand and useful results. Our educational institutions make us learned, cultured, but not sufficiently ACTORS. One reason why very often the young men who have but little education from the schools surpass those who have lived for years in college walls is because they have been trained to action. Action gives health and strength. Culture gives ease, grace, and finish. They belong together, but have been separated. Let them be brought once more into some grand scheme of education, and we shall have men and women as the result who can not only accomplish noble work, but have at the same time fine scholars, with cultivated manners, with grace and dignity of demeanor.

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BE THOU CLEAN.—The original application of this phrase was to an individual afflicted with a disease of the skin. The idea of *cleanliness*, and of its opposite, *uncleanliness*, in the minds of many readers of this passage in the Bible, is attached to the external and visible state of the individual addressed, to the condition of his cutaneous surface, in like manner as it is to the clothing. A person is said to be clean, physically, whose external surface is clean, and he is impure and dirty whose skin or clothing is in that condition. Great importance is very properly attached to the condition of the surface of the body, as visible to the eye, and a pure, fresh, healthy skin is regarded as an index of a corresponding healthfulness of the whole system, internal as well as external. To be clean in the skin, and to the eye, is in the popular view, to be healthy; while to be unwashed, with matted hair, and the integument soiled with dirt and perspiration, in a word to be unclean externally, is synonymous not only with impurity, but also with *disease* of the skin.

Correct as this view may be, if we restrict the idea of personal cleanliness to the condition of the external surface, as visible, the force of the admonition of our text is shorn of more than half its value. In the view of the physiologist and physician, the idea of cleanliness is much more than skin deep. "Filthiness of the Flesh" is not, in a physiological sense, limited to that condition which can be "washed away," but has a deeper, more pervading and penetrating meaning. In truth, the leprosy which the Saviour healed, on the occasion alluded to (Luke v. 13), was not merely an external disease, and the miraculous power consisted not alone in restoring the skin to a healthy and sound condition, else must it have returned in course of time, and the miracle have been a failure. But the divine medication and purification went deeper into the tissues and functions of the body; they penetrated to the very springs and sources of its vitality. The living current of the blood itself must have felt the alterative power, and thus the whole system of the man have undergone a physiological cleansing. Thus purified he was "clean every whit," and there was no apprehension of a return of the skin disease, which, loathsome as it was, was but an external manifestation of a profound depravity of the whole constitution.

Cleanliness is therefore, in its physiological and true sense, an idea applicable to the whole inner as well as outer man. Included in the inner surface of the body are the organs of digestion, of circulation, of respiration, of assimilation, of secretion, of excretion—the stomach, the heart, the lungs, the bones, the muscles, the brain, the nerves, and that mysterious fluid upon which these all depend for their nutrition and their life, viz., *the blood*. Influential as the outer skin is in promoting the health and comfort of the body, and therefore necessary, to be kept always in a state of cleanliness and activity of function, this is a trifle compared with the necessity of *internal* cleanliness and purity, for the maintenance of health, and to avoid the thousand ills to which we are prone by reason of the opposite condition of impurity—a condition quite as easily obtained, but far more difficult to be got rid of when once produced, than mere cutaneous filth.

This last proposition may at first appear startling, and excite incredulity, but a few words may suffice to convince the reader of its correctness. We have but to remember whence the blood—upon which all the tissues of the body, including the skin itself, depend for their existence—derives it own wonderful strength and usefulness, and how much greater in proportion is the necessity for its chemico-vital purity. The skin is but little more than an organ of excretion (we speak not of it now as an organ of sense), and designed chiefly to throw out impurities, and not to take in new material. We have but to understand these two points to see that the above proposition has been stated none too strongly. For upon what does the blood depend, every moment, for its supply to compensate for its continual and rapid diminution, as it runs its incessant round, carrying substance and strength to every one of the innumerable millions of atoms of the body? The great sources of its complex substance are: *the food we eat, and the air we breathe*, and to be convinced of the truthfulness of this statement, we have but to remember that each man, woman, and child inhales every twenty-four hours an average of nearly *sixty hogsheads of air*.

How far is this enormous amount of air which we daily appropriate to satisfy the demands of our bodies, from being always clean and pure! To say nothing of the poisonous emanations from our own personal and domestic surroundings, the products of combustion of coal, oil, and gas, the dust and vapors of our streets, and the malaria of vegetable and animal decomposition—setting these all aside, the healthy operations of our own bodily functions are continually giving off filthy poisons of most deadly character, which infest the atmosphere immediately around us, and unless carried out of reach of the lungs as fast as formed, must necessarily be inhaled at

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every breath. The carbonic acid gas exhaled from our own lungs is alone sufficient to produce the most serious results if taken in again, while the emanations from the skin and other excretory organs, though less abundant, are yet equally productive of uncleanliness and impurity of the blood.

It is an interesting fact, that the more healthy and vigorous the bodily functions, the more abundant is the elimination of these poisons, and hence the greater the danger, unless they are dispersed beyond reach as rapidly as they are generated—(inhaled).

For every breath of air inhaled by the lungs, there is returned another, not only deprived of a great portion of the vital principle, oxygen, but in addition thereto it is heavily laden with carbon in the form of carbonic acid gas, and a large amount of moisture, either of which alone would render it unwholesome, but, together, render the exhaled air a certain provocative of disease, or a rapid and fatal poison, according to the amount re-inhaled.

Under ordinary circumstances, these two products of respiration are invisible, but their existence can be proved at any time by the following simple experiments. To show the moisture in the inhaled air, we have but to breathe gently on a cold glass or iron and instantly it is condensed in the form of dew, which in a short time will collect in large drops and run down in little streams. Every breathing animal shows it in dry frosty weather by the colored vapor which issues from the mouth or nostrils at every breath. In cold weather the windows of every crowded church or school room give ample token of its existence within by its condensation upon them, giving them the appearance of ground glass, and let it not be forgotten that it is not only the layer of atmosphere next the window which is thus imbued with the moisture, but, that it is equally prevalent throughout the whole apartment, that every head within is immersed in it, and every pair of lungs is re-inhaling it. The quantity of *water* thus inhaled with the breath amounts to an average of a pint and a quarter every twenty-hours for each person. Every man's body is a distillery, and every pair of lungs an alembic from which the surplus of water of the blood is distilled into the atmosphere, and when concentrated, as in crowded and unventilated rooms, is scarcely less baneful than the products of certain artificial stills which men "put into their mouths to steal away their brains."

The formation of carbonic acid gas is also easy of demonstration. Take a white glass vial, about three-quarters full of common lime water, perfectly clear, and with a small tube (a pipe stem or a straw) pass the breath slowly through the lime water for a few minutes. The fluid will gradually become opaque and of a milky whiteness. If the vial is then set at rest, the liquid will soon become perfectly clear again by the subsidence of a white powder to the bottom, showing it was the powder which gave the milky hue to the liquid. This powder, by chemical examination may be proved to be carbonate of lime, which was formed by the union of the pure lime of the water with the carbonic acid of the breath.

Besides these two inhalations from the lungs, the latter being especially poisonous, a considerable amount of both is also thrown off from the skin, adding to the deleteriousness of the surrounding atmosphere, and this result is also aggravated by the exudation of a portion of *animal* matter which is found floating in the air, the decomposition of which is the principal cause of the peculiarly offensive odor given by a confined and oft breathed air, and lends additional strength to its poisonous character. This peculiar sickening odor is perceptible to any one entering from the open air into a crowded room, or a close chamber which has been occupied a few hours by one or more persons. And it is especially remarkable that the occupants of such a room or chamber, whose inhalations are the cause of this unpleasant odor, are themselves, unconscious of its offensiveness and impurity. This is due to the fact that it has *gradually* invaded their olfactories, stealing imperceptibly over their sense of smell, and its acuteness. Let any one, after a night's occupation of a chamber with the windows and doors closed, leave it and breathe the external air for a few minutes, and then return to the chamber before it has been ventilated; he will at once perceive what is here alluded to, and may feel astonished at his having escaped suffocation from his own and his companion's foul gases. No one, however, can remain immersed in such an atmosphere, even of his own creating, without more or less injury to his bodily functions, especially a feeling of depression of his nervous and muscular powers. He wakes unrefreshed, and unfitted for the enjoyments and occupations of the day. Those who never sleep in well ventilated dormitories can not appreciate the great advantage which ventilated chambers afford to both the sleeping and waking hours.

Many a hearer is put to sleep by the foul atmosphere of an unventilated church; many a one has swooned from the same cause; and

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many a sleeper in a close unventilated bed, room has gone into "the sleep that knows no waking," from sudden congestion of the brain produced by the foul air of the room.

There is, therefore, a more than superficial interpretation to be given to the sacred injunction, "*Be thou clean.*"

WINE-BIBBING AS A CHARITY. — On a recent occasion the Governor of the State, accompanied by a select party of invited guests, paid a visit to the Emigrant Hospital Asylum on Ward's Island. The tour of inspection, made at the invitation of the Commissioners of Emigration, was a series of surprises and fresh delights. The newly-completed edifice is said to be the best designed and constructed hospital in the world. Certainly, if pure air—secured by the most perfect ventilation — wholesome food, and cleanly surroundings, can woo the faint and suffering immigrant back to health, they will attain it at the New Hospital on Ward's Island.

But we took up the pen, not so much to speak of the excellence of the institution, or of the beneficence of the charity itself, but to offer a word of friendly criticism upon the method of entertaining guests of public institutions.

On the occasion of such a visit it would be inhospitable to send guests away faint and hungry. It might not be decorous to serve up the exact food given to the inmates—though, for several reasons, this would seem to be appropriate. It certainly is proper and suitable to offer a frugal repast, prepared in good taste and at small cost—any thing beyond this is superfluous and reprehensible. What shall we say, then, of a costly dinner prepared by popular caterers? And especially to the bountiful provision of wines and liquors?

On the occasion of which we write, as the guests entered the Hospital they were offered some kind of intoxicating drink. Before dinner they were invited to a sideboard filled with decanters of liquor, and the dining-table was flecked with bottles of champagne, not less than one hundred of which were emptied by the seventy-five guests.

Now, whose money purchased this wine? Was it State funds, or a portion of the emigrant money, paid by immigrants and belong to them? In either case, it was an unwise and inexcusable misappropriation of a sacred trust fund. The lesson of economy, of honesty, and especially of strict temperance, is one of the first importance to be taught the newly-arrived immigrant. The force of example is most impressive. What opinion must these people form of governors, ex-senators, leading physicians, and ministers of the Gospel, when they see them participating in such a scene of conviviality, without one word of protest against the bad use of the emigrant's money!

We pray the Commissioners of Emigration, at their next gathering, to set an example of sound sense and common honor by banishing the wine-bottle from the table they spread for their guests. If the after-dinner speeches are less fluent, the moral influence of the example will be more healthful, and the conduct of these trustees of a noble fund less open to censure.

WHY TEETH ROT.—At a meeting of the Western Medical and Surgical Society of London, Dr. Martyn stated "that teeth perish prematurely because they are faulty in structure, faulty in a too porous and fragile enamel (often marked by a chalky appearance) and dentine, and, their other structures being of no better quality, they yield more or less early to the wear and exposure to which they are subject. The defects of structure, he believes, are not due to delicacy of health—want of vital force, so to speak—but really to insufficient use during the formative process or development of the teeth. Human teeth are intended to grind grain, but in civilized life, from the cradle upward, they have really little of their natural work to do, but cookery does it for them. A crust of bread is nearly the chief *pièce de resistance* put to table. There is enough, doubtless, of tough meat, but this does not give grinding work. The supporting structures of the teeth, viz., the alveolar processes, suffer in a like degree from insufficient use. This is shown in any mouth from which a grinder has been removed. The opposing tooth soon projects from its bed into the space of the lost tooth; next its fangs become exposed, the tooth loosens, and ultimately drops out, or it may be that caries attack the parts unsheltered by enamel, and the tooth is lost. What happens is, that the alveolar process connected with the unopposed tooth, losing its natural stimulus—grinding pressure—becomes absorbed, its lining periosteal membrane degenerates, probably becomes spongy, and so forces the tooth from its bed. The author has endeavored for some time to carry his views into practice, and has selected the Navy biscuit as a suitable article of diet in the place of bread."

This and many other causes produce decay in teeth, very prominent among which is the use of drug medicines. Very few persons have teeth

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strong enough to withstand the enormous use of poisons taken into the system under the mistaken notion that they have some mysterious charm in curing disease.

THE following letter from F. R. Elliot, one of the leading horticulturists of the country, will, we think, be found well worth perusing. Mr. Elliot speaks of the Kittatinny blackberry, and we may remark that our friend, Mr. E. Williams of Montclair, sent to our office a box of this fruit, which for productiveness seemed a marvel. As to their flavor, we did not regard them so fine, but they were much sweeter than the Lawton.

"THE SWEETEST STRAWBERRIES.—Under this head I find a short article in the September number of THE HERALD, and, without dissenting from the writer's opinion, I desire only to add a word about varieties desirable for the autumn as well as for market. The writer names Ladies' Pine as a sweet, high-flavored sort, and correctly; but its unproductiveness will keep it out of ninety-nine collections to the hundred. The Lady Finger is almost equal to it in quality, has the flavor and character of our native wild berry in a great measure, and is a good producer—not an enormous one like Nicanor and Wilson, but yet a good bearer, and with fruit of fine appearance and quality that requires no sugar to be palatable. Lening, or Lening's White as it is commonly known, is a most delicious berry for the amateur. Sweet, with a musky pine-apple flavor that I find every body likes. The berry is full medium size, sometimes large, nearly white or greenish white at apex, but colored with a bright crimson red toward the stem.

"For market purposes, combining good quality, handsome fruit, and great productiveness, surpassing, as I saw it this season, the Wilson, the new seedling just sent out under the name of *Nicanor*, or the Conqueror, should be in the hands of every one. It is not as acid as Wilson, and while perhaps not as sweet as Lening, yet I found them delicious to eat from the vine. As a producer, I saw the plants standing side by side with Wilson, Triomph de Gand, Early Scarlet, etc., and the number of berries exceeded that of any of the old varieties. It matures early, ripens its crop gradually, and holds on until the very last.

RASPBERRIES.

"When you are telling your readers to grow strawberries, you should go on and include raspberries, blackberries, etc., for I know you, with me, believe good ripe fruit better for the human system than drugs. Every garden should have its small plot of raspberries, and in filling it, permit me to say, that for family use there are no varieties equal to Brinckle's Orange and Naomi. The first is a bright orange colored berry, rich and sweet, and the best of all the yellows, but its canes are not hardy, and must be laid down and covered each winter. Naomi is a new sort of the Antwerp class of fruit, but its canes are perfectly hardy wherever the Isabella and Catawba grape vines are. The fruit is of the largest size, rich, red, firm, high flavored, and sweet.

BLACKBERRIES.

"While the Lawton or New Rochelle has long had ascendancy, no man could ever eat a pint of its fruit without using freely of sugar to destroy the acid, which it has in its unripe state, and as it turns black long before it is ripe, the most skilled can not gather a dozen of the berries and feel that each is ripe. It is a market sort to take the eye and bring money, but the Kittatinny has now come before the public, and as it produces nearly or quite as much as New Rochelle, as its canes are more hardy, and its fruit sweeter, it should become the market berry. The Dorchester, however, is the berry for the amateur because of its fruit all being, as soon as well colored, sweet and eatable without any sugar. It is in fact the only berry that one can eat from the stems with impunity. It does not produce quite as liberally as Kittatinny, and for market will not produce money returns like New Rochelle, but for the family table, or for children to go and eat from the canes, it is the one of all.

"F. R. ELLIOT."

ALCOHOLIC MEDICATION. — Dr. Collenette, of Germany, says: "For 21 years I have banished all intoxicants from my practice, and during that period I have not made fewer than 150,000 medical visits. And I hesitate not to say that the recoveries have been more numerous and more rapid than they were during the five years I followed the usual practice and administered brandy, wine, and beer." This evidence from Dr. Collenette agrees perfectly with that of Dr. Nicholls and Dr. Higginbottom, who pursue the same course and have for many years. Accounts of their practice have already appeared in THE HERALD OF HEALTH. And this is but the testimony of all who have fully tested this non-stimulating plan of treatment. Compared with this, the method of treating the sick in the hospitals of New York is strangely un-

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philosophical. Most of the patients get there as the result of the use of liquors. The very thing they need while under treatment is abstinence and hygienic or surgical care; but the amount of stimulants used is enormous. In one institution alone the cost of the liquors prescribed foot up to very many thousand dollars. This not only reduces the number of recoveries, but also makes it much more certain that the patient will not be reformed when sent away, but will have his appetite for liquor continued. This subject of temperance in our hospitals is one which has always been in the hands of the doctors, and the result is, it has received no healthy growth.

THE MODERN AND REAL ELYSIUM.—On the sea coast of Peru, as on that of the Gulf of Mexico, incipient tubercula phthisis is one of the commonest of pulmonary affections. For a long, time however, it has been known to the natives, that a removal of phthisical patients, even in the stage of more marked ulceration and cavities in the lungs, to the inland valley of Jauga at a height of ten thousand feet above the sea, was followed by an invariable suspension of the disease, a fact which is quite corroborated by the practice of physicians at the present. How much of this curative power may be due to the moral influence exacted by its scenery and associations it would be difficult to say, but a nearer approach to Elysium felicity than the lives which its population are described as leading, it would be impossible to find in any less favored land. The harvest being home, we are told the whole rural population rest from their agricultural labors for eight months in the year, which they give up entirely to amusement and festivity, trusting to the rain of heaven during the other four months of the year to fertilize their land, and give them more food than they require. Surely, Dr. Johnson must have had their mountain valley in his eye when he wrote his "Rasselas," for no other place which we have heard so nearly realizes the physical conditions under which Johnson's Prince of Abysinia sought the protection of human happiness, and we may mention for the benefit of such of our readers, who, as valetudinarians or philosophers, may feel an interest in knowing more about the charming region than we are able to tell them, that if the project of running regular steamers up the Amazon from Para for 2500 miles from its mouth, which has just been started by an American company, becomes an established fact, they will be able to transport themselves directly to it almost without changing vessels after a voyage, which though long, is neither tedious nor debilitating, and which will carry them through some of the most magnificent scenery in the world.

A NEW BOOK.—The world is full of books, but they are not all new ones, for very many of those which lay claim to being new are often but a rehash of old ideas in new dress, so that they really add nothing to the stock of human knowledge. Not so, however, with regard to a book written by Dr. Isaac Jennings of Oberlin, Ohio, entitled "The Tree of Life; or, Spiritual and Physical Degeneracy—their Cause and Remedy. Dr. Jennings is now about eighty years of age, and one of the world's medical philosophers. He has already been before the public in two works, entitled respectively "Medical Reform" and "The Philosophy of Human Life." He is also the founder of that school of medicine known as "Orthopathy." This system was founded upon a new theory of disease, and also upon the experience of many years' practice of medicine in Derby, Conn., without using any drugs, but simply by use of bread pills and colored water. The work referred to is the great work of his life, giving the results of his experience and observation for many years, and is really one of those works which contain something new. It is written in the interest of humanity, and is destined to produce a profound sensation in the medical and non-medical world. The Publishers of THE HERALD OF HEALTH have brought it out in beautiful style and at a low price.

A LAUDABLE AMBITION. — Dr. Underwood, of Croton Point, New-York, has perhaps the largest amount of land devoted to grape culture of any person in this country. His vines are thoroughly cultivated, and his crops of grapes are abundant and fine. It is, however, an unpleasing reflection that while he might sell every pound of grapes he produces to be eaten as food at large, at almost fabulous prices (so great is the demand), yet he sets apart a considerable portion of his grapes for wine. We hope some man of enterprise and love for the cultivation of fruit will, somewhere near New York, start a vineyard of not less than 100 acres, where the fruit shall be grown in the greatest perfection, and where all of it shall be used for food. Grapes—ripe, sweet, and fresh from the vines—are infinitely better for the sick than wine, and it shows an immense amount of medical stupidity that doctors do not discover it.

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PROGRESSIVE AGRICULTURE.—The natural laws of farming, when applied to the soil, produce very wonderful results, but natural farming is something rare to find. There is, however, a man in Massachusetts who, in 1825, bought twenty-five acres of land and applied all the knowledge he could get to its thorough cultivation. Now there is no month in the year that something is not in bloom or ready for market. You walk through his grounds and find every thing going on just as regularly, accurately, and carefully as the cotton goes through the loom. He has managed his affairs with prudence, accuracy and care, and has made from his farm of twenty acres two hundred and fifty thousand dollars in forty years. This is a large sum to make from twenty acres, and all could not do it, but a majority of men would be content with less. We sometimes fear, when we see the rush of young men to the city, that agriculture is not as popular a pursuit as it ought to be; but when intellect is brought to bear in the culture of the soil as it should be, nothing is more healthful or charming. There are few men of business in any large city that do not at times sigh for a life of simple honest industry on a farm, where they may be free from the dissipations of trade, and sit under their own vine and fig tree in peace and comfort.

DR. DIO LEWIS'S LOSS.—The building at Lexington, Mass., owned and occupied by Dr. Dio Lewis as a ladies' school, was destroyed by fire September 9. We make mention of this loss because this building was used for the purpose of educating the body as well as the brain and heart, and physical culture was put upon the same basis as moral and intellectual training. It had been put in complete order, was well furnished, and every arrangement that health, comfort, and convenience could suggest had been adopted. The injury sustained, however, will be only temporary, for we are glad to learn that Dr. Lewis has determined to erect a new building, better, if possible, than the one destroyed, where his great enterprise can go forward. Meantime, arrangements have been made by which the school, during the following year, will go on as heretofore at the Spy Pond House, near Cambridge, Mass. This location is a delightful one, and every thing concerning the school will be as perfect as if the fire had not occurred.

DOMESTIC WINES.—Do people know how much harm they do by the manufacture of the various domestic wines, so-called, from currants, grapes, tomatoes, rhubarb, etc.? It is getting to be a very common thing for those who, a few years ago, were active workers in the Temperance cause to lay by a few gallons of home-made wines for extra occasions. If they will for a moment analyze their own feelings, they can but see that they are now doing nothing to prevent the spread of intemperance. The very indifference they manifest on the subject becomes in their children, perhaps, an argument in favor of the use of wine, and beer, and ale, which can not but prove a great curse to some of them.

MORE SCHOOLS OF GYMNASTICS.—Prof. Welch, who has had charge of the department of Physical Culture in Yale and Dartmouth Colleges during the past year, has held a Normal Institute of Physical Culture at the Glenwood Ladies' Seminary, Brattleboro', Vt., which closed about the 1st of September. It was our pleasure to attend the exhibition given, and we are glad to say it was very successful. These schools of physical culture are needed everywhere. Many invalids by joining such classes could be educated into good health, who can hardly be doctored into soundness. The Normal Institute at Brattleboro' will probably be continued, so that one session of 10 weeks will be held annually. The location for such an enterprise is delightful, and if hundreds of people who go to the sea-shore, travel, and woo health in various doubtful ways, would join such a school as this, they would get more recreation and pleasure than is found in months of hunting and fishing, and with the best results to their bodies.

JAMES PARTON ON MEDICINES.—There are hundreds and thousands of people everywhere who ignore the use of medicine. The following sentence from an article on Homœopathy expresses the opinion of James Parton on drugs. He says:

"For my part, I never take any medicine and should be perfectly willing to be treated for any disease by a competent nurse."

This is brief and explicit. Good nurses are the best of doctors, but they are not as plenty as they ought to be. To be a good nurse requires a quiet, genial, happy nature, and a thorough knowledge of physiology and hygiene. Indeed, one with such knowledge is, beside being a good nurse, a good doctor.

WATER.—A clear fluid, once used as a drink.

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Healthy Spices and Condiments.

LOGICAL EXERCISE FOR LADIES.—Jumping to conclusions.

A PHYSICIAN'S MOTTO.—Foote being asked by a lady to translate a physician's motto, which was "*a numine salus*," he quickly replied, "God help the patient."

MUST BE HEALTHY.—In reply to the question whether the Nicholson pavement is healthy, a Western paper says that all the contractors have got fat on it.

A QUAKER lady explained to her new domestic that washing day came every Second Day. The girl left in high dudgeon. She didn't go to washing every other day, not she.

"DOCTOR, what shall I take for the cholera?" "The cholera! Have you got the cholera?" "No." "Well, take the cholera first."

"YOUR master at home?" "No, sir; he's out." "Mistress at home?" "No, sir; she's out." "Then I'll step in and sit by the fire." "That's out, too."

WE were amused with the remark of an old lady who was lately admiring the beautiful picture called "Saved." "It's no wonder," she said, "that the poor child fainted, after pulling that great dog out of the water."

A GENTLEMAN who was relating an accident he had met in Cambridge from a fall, was asked by a surgeon if it was near the vertebræ that he had been hurt. "No, sir," was the reply, "it was near the Observatory."

WHEN Chang and Eng were first exhibited in New York, a curious inquirer went up to the exhibitor and asked, "These the Siamese?" "Yes, sir." Brothers, I presume?" On the whole, he thought they were.

THE other day a town crier took in charge a lost child, and proceeded to hunt up his parents. On being asked by a lady what the matter was, he replied: "Here's an orphan child, madam, and I'm trying to find his parents."

A NEW patent marble cutter has excited considerable feeling among the laborers in Vermont quarries. An Irishman, recently, after watching its workings intently, exclaimed, "Be jabbers, ye can cheat six or eight honest Irishmen out of their wages, but ye can't vote."

Literary Notices.

AMERICAN POMOLOGY—APPLES. By Dr. John A. Warder; 290 illustrations. New York: Orange Judd & Co. 1867.

This work of 750 pages, well printed on fine paper, and profusely illustrated, is the latest standard work which has appeared upon the cultivation of the apple. We can conscientiously say that we regard it as a valuable addition to the literature of horticulture. Fruit growing is becoming a most important branch of agriculture. The demand for it is yet beyond the supply in all our large cities, and everywhere people are beginning to use more fruit than formerly as a part of their food. Whoever, therefore, writes a valuable work on the growing of fruit is a public benefactor. Dr. Warder we have long known as one of the leading pomologists of the country, and he is well qualified for the work. Price, by mail, $3.50.

CORNER-STONE ADDRESS. By Rev. Henry Ward Beecher; July 23, 1867.—The Adelphi Adademy of Brooklyn are to have a new building for their large and popular school. The corner-stone was laid by Henry Ward Beecher, July 23, 1867. Mr. Beecher also made an address on the occasion, which has been printed. We should be glad if this address could be read by every educator in the country. It is full of valuable thoughts upon education, culture, health, physical training, etc., etc. Those who wish it can inclose a dime to Lockwood & Ellinwood, Brooklyn, N. Y., for the same.

MELIORA: A Quarterly Journal of Social Science in its Economical, Ethical, Political, and Ameliorative Aspects. London: S. W. Partridge.—This quarterly contains many valuable papers. The April number has one on a model manufacturing town in Ireland, where education, health, temperance, and pleasant homes are made a special object of consideration. Very many of the articles have a high value; still, it is not so well adapted to the people as we should be glad to find it.

LOWE'S FARM AND FIRESIDE JOURNAL, devoted to the culture of the soil and the culture of the mind.—This is a new agricultural paper; its editor, J. P. Lowe, was for a long time a student of Prof. Mapes, one of the most scientific farmers this country has yet produced. We hope to see it fill a field of usefulness not yet occupied by any paper devoted to farming.

THE AMERICAN NATURALIST.—This periodical, published in Salem, Mass., is one of the best printed monthlies that comes to our table. The September number contains an interesting paper on "The Home of the Bees," and many other papers of value to the naturalist.

THE AMERICAN JOURNAL OF DENTAL SCIENCE. Baltimore: Snowden & Cowmen.

THE DENTAL COSMOS. Philadelphia: W. W. White.—We think both these journals of dental science creditable to the profession. They contain much more valuable matter than is to be found in the medical journals of this country.

THE LIBERAL CHRISTIAN.—This is one of the most able of our religious papers. Rev. Dr. Bellows is writing valuable letters to it from England, where he is now traveling; $3 a year.

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FROM Ticknor & Fields we have "Good Stories," "Old Curiosity Shop," and "Little Dorrit." The first is a series of pleasant stories designed, in part, for railroad reading. The selections are good. We would suggest that books designed to be read while traveling should be printed with large, bold type, in order to prevent injuring the eyes. The other two books are a continuation of the "Diamond" edition of Dickens's works, and for those who wish a cheap but neat set of his works they are not to be surpassed.

AMERICAN JOURNAL OF HOMŒOPATHIC MATERIA MEDICA. Vol. 1, No. 1. Philadelphia.—It is difficult to know of what value such a journal can be, but perhaps it may in some way have a negative one. How much there is published, both in science and in art, in literature and biography, in medicine and medical systems, that is of no earthly use! The Homœopathic literature of this country is meager, and, as a general rule, worthless; but this monthly caps the climax.

WHITTIER'S POEMS. Complete Edition. Boston: Ticknor & Fields.—The beautiful poems of this favorite American author are most beautifully executed in a high state of the art of typography, forming one of the famed "Diamond" Edition, of which too many can not be issued. The author says, in this his first complete edition of his poems: "It is satisfactory to know these scattered children of my brain have at last found a home."

THE ATLANTIC MONTHLY AND OUR YOUNG FOLKS. Boston: Ticknor & Fields.—These useful monthlies still continue to be the best of their kind published.

Publishers' Department.

This Number.—This number contains eight additional pages, in order to make room for our usual variety. Our subscribers will notice that it is printed on beautiful white paper, and looks clean and healthful.

The "Minutes of the Brawnville Athletic Club," by Moses Coit Tyler, will be found full of good things, and will repay a careful reading. These papers will continue till twelve of them are published.

Prof. Rufus King Browne's paper in this number, while it occupies nearly six pages, we regard as one of the most interesting we have had from his pen. It talks of things not much known to any but the well-versed physiologist. We often find it easier to read of things perfectly familiar to us, but it is certainly more profitable to study those things which (being useful) we do not understand. It is only by delving into the hidden things of Nature that we learn any thing new.

Mr. Beecher's articles are always good.

Phœbe Cary has been engaged to furnish us new poems as frequently as her engagements will permit. We would remind our exchanges who copy her poems without credit, that they are written for our pages and have not been published before.

George W. Bungay's "Inebriate's Lament" and "Harvest Home Gathering" are written in his usual happy vein, and can not fail to be read with unusual interest. Mr. Bungay's friends in the West will be pleased to know that he is to spend several months of the fall and winter among them as a lecturer. Long may he live to enjoy the fruits of his well-earned reputation as a writer and speaker. THE HERALD OF HEALTH has been under many obligations to him for valuable assistance, editorial and otherwise, which will not be forgotten.

We introduce to our readers a new contributor—Rev. J. C. Holbrook of Homer, N. Y.—whose essay will be read with profit. We expect frequently to have articles from his pen during the coming year.

Mrs. Gleason's article on "Sleep," written to the ladies, can as profitably be read by a good many persons who belong to the other sex. It is a pleasure to know that these articles are doing good. Very many of our exchanges copy them, some of them giving our magazine due credit, while some others neglect to do so.

"A Letter to Young Girls," by Mrs. Dr. Miller, is written in a kind and loving spirit, and in a field hitherto so much neglected that we feel sure its author's desire that it may do good will be fully realized. Who can fully estimate the value of such wise counsel to the young?

Dr. Snodgrass's communication on "The Infanticidal Workings of Allopathy," gives us some facts well worthy of reflection. If this paper does not induce inquiry where before there has been apathy and thoughtlessness, we shall be mistaken.

Dr. George H. Taylor furnishes us with a valuable paper upon "The Curative Influence of Mind." This is a subject of very great interest, and has not received the attention it should. Doctors study long to find out supposed healing virtues in deadly plants and minerals, and ransack creation for new remedies, when if they came nearer home they would find a field of remedies little known or acknowledged.

Prof. J. Burns of London sends us an article on "The Conditions of Parentage." Mr. Burns has had in his profession ample opportunity to make extensive observations in this field of inquiry, and what he says will do good.

We believe that the present number will be found of as much interest as any that has preceded it.

Another Year.—With two more numbers will close the present volume of THE HERALD OF HEALTH, when most of our subscribers' subscriptions will expire. We desire to make our arrangements such that our list—already large—shall be much increased for 1868. We have a large list of subscribers who are warm friends, and who will gladly do all they can for us—not because of ourselves, but to aid in extending ideas so pregnant with value to the world. It is the idea of doing good that inspires them in the work; and to help them to form large Clubs early, we have concluded to furnish the October, November, and December numbers free to all new subscribers sent in before December 15 of this year. This will be an inducement which our friends can offer to new subscribers, and it will also be an inducement for those who are laboring for Clubs with which to obtain premiums to begin early. Those who are in the field in the autumn months will have many advantages over those who wait till winter, and many can by the 1st of December get a list large enough to claim a Sewing Machine or Dictionary, who otherwise could not get one at all. For subscribing early, the new subscriber gets three numbers of this year free, and those who are at the trouble to get up the Club get their premium for their labor. To those who work for the good of their fellow men, and particularly of the rising generation, and form Clubs without hope of pay, the consciousness of well doing will be a reward worth more than any thing we could pay them. As we have in the past, so we shall in the future, expend all we receive in making THE HERALD a useful magazine, looking for our remuneration in other directions. We think we may without selfishness ask our friends to put their shoulders with ours to the work, and push along a great and glorious cause.]

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Persons of Influence.—We are constantly receiving letters from men and women in high position in society thanking us for publishing so valuable a magazine, and intimating that they intend to use their influence to extend our circulation. We are very thankful for these kind letters. Such persons are often unaware of the amount of good they may do. Their example and influence in a town or community is very great, and goes far in building up that which may need their labor. We hope that those who think an increase of our circulation among their friends would do good, will find time to assist in increasing our list.

Money Orders.—Persons who send money orders should state to whom they are payable and by whom given. We prefer that all persons sending money should do so by means of money orders, where they can obtain them. It is entirely safe to do so, as these orders are perfectly useless to any but the rightful owner. Drafts on New York, however, are always perfectly satisfactory. When none of these are to be had, currency can be sent safely, if properly directed and carefully inclosed.

Complimentary.—We have advertised for several months our desire to procure March numbers for 1867 and October numbers for 1866, offering full pay for them, but can not get enough to do any good. Once in a while a soiled and worn one, that looks as if it had been read by fifty persons, finds its way back to us. We are inclined to the opinion that people who take our magazine either wear it out in studying it, or else find them so valuable that they do not care to part with them.

The Pangymnastikon.—We can not afford the space necessary to keep a long advertisement of this valuable instrument in our journal, and therefore take this means of saying that we will send them for $10 and $15. See back numbers of this magazine, or send for a circular.

New Prospectus.—We shall in our next number announce our new programme for 1868. Some few changes may be made in our Premium List. The Sewing Machine and Dictionary Premiums will remain as they are at present.

Satisfaction.—It may be gratifying to our readers to know that we are now receiving (and this season of the year is one when we do not look for many new subscribers) two subscribers where we received one a year ago.

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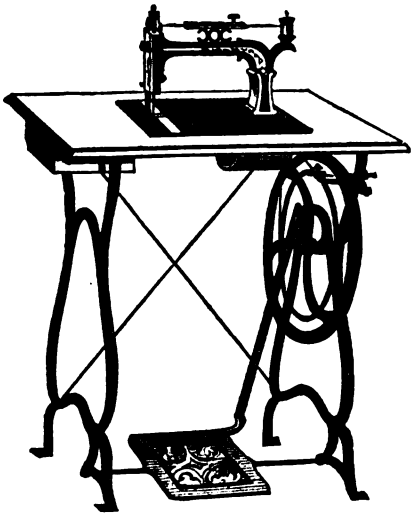
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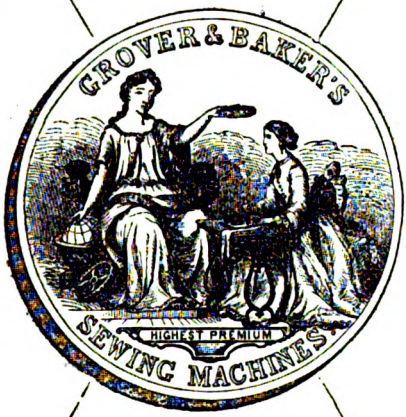
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NOVEMBER, 1867.

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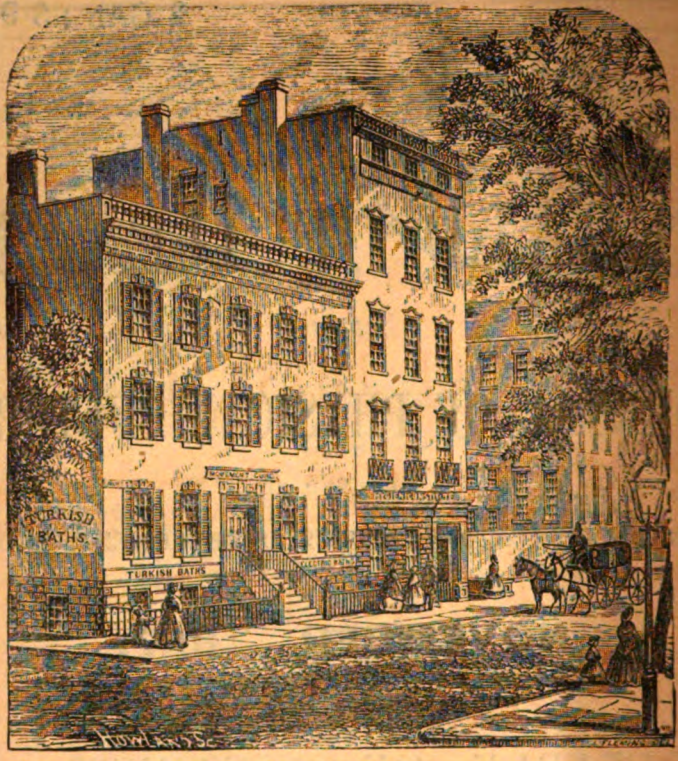
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VOL. 10, No. 5.] NEW YORK, NOVEMBER, 1867. [NEW SERIES.

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General Articles---Hygienic and Miscellaneous.

MINUTES

OF THE

Brawnville Athletic Club.

EDITED BY MOSES COIT TYLER.

VIII.

A CATASTROPHE.

BRAWNVILLE, *August* 5, 1866.

A DOZEN or twenty of us had arrived at the library this evening at least a quarter of an hour before the time for opening the meeting, and were standing or sitting in groups about the long table which occupies the center of the room. The Judge was already in the chair at the head of the table; and Dr. Drugger, our noble enemy, who often comes to our discussions and contributes to them the precious spice of keen sarcastic but gentlemanly opposition, had thrown himself into a chair near that of the Judge, and sat there in a rather lounging attitude, his left elbow resting on the table, and his right leg thrown over one arm of the chair. As usual, he was bantering the Judge in his own facetious and slashing style, describing him as "a gymnastic maniac," declaring that "himself and Deacon Snipp were the only sane men left in Brawnville," and predicting that "in another twelvemonth the Club House would be turned into a lunatic asylum, fully stocked with patients from among the regular gymnastic performers of the present establishment." There is always something racy in the Doctor's talk; and we no sooner discovered that he was in one of his gymnaphobic moods than we all gathered round him to enjoy the sport.

"Of course, Doctor," replied the Judge, "you know that nothing is easier, and indeed nothing is more common, than for crazy people to accuse all but their own sort of being crazy. You and Deacon Snipp stand forth in this community, now awakened to the necessity of physical exercise, and you two vote all the rest of us mad—just as if two hundred inmates of some asylum were to assemble in mass meeting, and pass some such preamble and resolutions as the following:

"'WHEREAS, The majority of the human family have lost their wits, and have become hopelessly deranged and demented; and

"'WHEREAS, They, having the power of the majority on their side, have erected this edifice and called it Bedlam; and

"'WHEREAS, They have forcibly and cruelly arrested us, the only sane, balanced, and rational people left in the world, and have put the stigma of insanity upon us, and have imprisoned us in this asylum; therefore be it

"'*Resolved*, That we, whose names are hereunto affixed, the only sensible people Providence has granted to this generation, do solemnly protest against the foul and calumnious treatment we have thus received at the hands of mankind; that we assert before heaven our per-

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fect health and sanity; that we pronounce all men and women except ourselves to be utterly mad, crazy, witless, and demented, and that we can not excuse them for their cruelty to us except on the grounds of their having lost their faculties, and of their being, therefore, not morally accountable. Finally,

"'*Resolved*, That, on the whole, we are glad and grateful that we have this secluded house to live in, where we can enjoy each other's rational society, and are thereby separated from contact with the insane people who dwell beyond these walls.'"

"Well, Judge," said the Doctor, "I am not sure but the Bedlamites have the right of it, after all. Who can tell which are the mad ones—those in Bedlam or those out of it? The latter happen to have the majority now; but suppose the former should go on increasing as they have done of late, and what is to hinder their being yet in the majority; and when they become so, what is to hinder their walking out of their asylums, voting ordinary folks crazy, and shutting them all up in the cells they have just abandoned?"

Here the Doctor burst into laughing, and in the midst of his loud and long "ho! ho! ho!" rolled about in his chair with great mirth, and varied his graceful attitude by bringing down his right foot upon the floor, and throwing the left one over the other chair arm.

"Do you know," he continued, "you fellows in your present muscular infatuation, inspecting your carcasses anxiously day by day to see if your arms and chests are growing bigger—like the little boy that pulled up the plant every morning to see if it had grown any during the night—you fellows remind me of that chap in the Blithedale Romance—see, what was his name?—yes, Miles Coverdale, who, in his pride of muscle, declared that he would have his portrait painted in his shirt sleeves, with the sleeves rolled up, to show his muscular development. Ho! ho! ho! I confess to you, Judge, that I now go out into the streets every morning with fear and trembling, lest I should see you and your brother maniacs, in the pride of your muscular development, and in your anxiety to show it off, actually returning to the fig-leaf costume! Pardon me, now; but I am on the point of saying something rough. Remember, however, I expressly soften it by this modification: it don't apply to every body in this room. But, really, when I see some of you conceited gymnasts fuming and strutting because of your big muscles, I think of the retort which Cato gave to that brawny old earth-cumberer, Milo. The latter, in his old age, looked sorrowfully at his arms, and exclaimed: 'They are dead!' 'Not so dead as you are, you old fool!' was Cato's reply; 'you never were good for any thing but for your shoulders and flanks.' Your people once laughed at me in an idiotic way because I quoted a Greek sentence to you. Well, I suppose you will laugh nearly as much if I quote a Latin one. But laugh on! What else can sense and learning expect to receive from men all gone to muscle? But hold! I see my learned friend the schoolmaster in the crowd. He'll appreciate this. It's from his friend Sallust. So listen, you poor degenerate Christians, devoting your energies to the exaltation of the animal over the intellectual, and learn how superior a certain old Pagan was to you: '*Igitur prædora facies, magnæ divitiæ, ad hæc vis corporis, alia hujusce modi, omnia brevi dilaluntur; at ingenii egregia facinora, sicuta anima, immortalia sunt.*' There! if you want to possess one sane idea, get the schoolmaster to translate that for you."

The last few words of the Doctor were partially lost in loud screams and in the confused sounds of many voices from the Hall of Exercise, where a number of our members are accustomed to practice for half an hour before the literary meetings of the Club. Though we could not distinguish a word from the midst of these outcries, we were startled by their tone of terror. In a moment hurried footsteps sounded in the lobby and on the stairway, and in another moment a troop of frightened ladies, girls, and boys came bursting into the library. Their entrance did not add to our understanding of the case, except that it confirmed us in the impression that something dreadful had happened below; for they exclaimed together in a tumultuous jumble of voices: "Oh! oh! Judge Fairplay! awful! dreadful! Oh! oh! broke his neck! Leonidas Climax! Oh! come! Doctor! Oh! awful! shocking!" Dr. Drugger, comprehending that there was work for him to do, was pushing his way through the crowd, when a small "contraband," whom our soldiers picked up in North Carolina and brought home with them, and who has latterly made himself useful in our Club House as a servant of all work, reached the head of the stairs, and shouted in tones audible above all the clamor: "Oh, Massa Fairplay, come dis way! Massa Climack hab broke all de bones in his bressed body."

"There," said the Doctor, turning with a comical look to the Judge, "did'nt I tell you that your gymnasium would furnish a glorious

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increase of business for me?" and with the discharge of this Parthian arrow he bolted down stairs to the scene of the disaster. The rest of us followed as fast as we could, and on reaching the hall we found the Doctor leaning over Leonidas Climax, who lay in a fainting state upon the floor, while several of his fellow gymnasts stood around, anxious to be of some service, and just succeeding in shutting off the air from him.

"Is he severely hurt?" said Judge Fairplay, after a few moments.

"No, not seriously; he has only broken his arm."

"What a pity," whispered one of the members to me, "what a pity that it was not his jaw!"

It was not long before the prostrate orator revived from his fainting fit; and Dr. Drugger set and bound the arm with his usual skill and rapidity. Meantime Judge Fairplay's carriage had been sent for and was waiting at the door; so that the illustrious Leonidas was carried in state safely to his boarding house. It appears that a class of young men, of whom he was one, were practicing at the horizontal bar; and Leonidas, smitten as usual with "a vaulting ambition" to make a display of himself before the spectators "o'erleaped" the bar, and fell not only on "t'other side," but on his left arm, too!

So soon as the accident occurred, and before the extent of it was known, many of the younger people in their panic ran into the street, and as they passed toward their homes they spread all sorts of wild stories as to the catastrophe, so that in a few moments the Club House was filled with anxious villagers, pale with alarm, and eagerly inquiring if "Leonidas Climax had died immediately after his fall," and "whether the corpse was in Judge Fairplay's carriage."

"Well," said one villager, "I guess Dr. Drugger was pretty near right, after all, about these gymnastic fandangoes. He told us they'd make work for him."

And one good motherly woman, red and puffing with running and excitement, exclaimed: "Oh, dear me! What a dreadful thing this here horrid gymnasium is going to be! It'll surely murder and kill all our dear children, and break their bones, too! My little Freddy shall never enter this shocking wicked place as long as he lives!"

In the midst of this hubbub and panic Judge Fairplay, Parson Bland, and others, walked about among the people, and did much to allay the excitement by giving a correct version of the affair, and dispelling the distorted reports that had been spread. To the honor of Dr. Drugger be it said, that, after having attended to the wounded orator, he also helped to check the general alarm by assuring the people, in his cool, self-poised way, that "it was not a serious fracture, and that the young man would be around again all right in a few days more eloquent than ever."

Word being given that, notwithstanding the accident, the meeting of the Club would take place as usual in the library, there was a general movement of the people in that direction, partly from curiosity to see what could now be said, after such a tremendous counter demonstration, in favor of the bone-breaking practice of gymnastics.

The meeting was opened in the usual formal and parliamentary manner, a fact which alone constituted a sort of calming influence. Then several items of prosaic business were very deliberately attended to; and finally the chairman said:

"The question prepared for our discussion to-night is this: 'Is it desirable to engage a professional Gymnastic Teacher for the next year?' But the unfortunate occurrence in the early part of the evening has furnished us with a different subject—that of 'Danger in Gymnastics.' It is best for us to face that subject, now that it has intruded itself upon us. Our minds are turned in that direction. The law of successful mental labor is to take hold of the subject which lies nearest to you.

"On the theme, then, which has been thrust upon us to-night, I have a few words to say.

"I do not deny, I have never denied, that there is danger in the practice of gymnastics.

"With this general admission, I do, however, insist upon certain qualifying clauses. 1. Whatever danger exists in gymnastics belongs almost exclusively to those exercises which are *acrobatic*. There is absolutely no danger attending the Dio Lewis Gymnastics; there is next to none attending a multitude of exercises in the heavy system. If, therefore, you desire to get exercise, and to run no risk, you can confine yourselves to the non-acrobatic movements.

"2. Even the acrobatic movements are comparatively safe to those who approach them gradually, and with due discipline on the preliminary exercises. Accidents generally happen to those who, from impatience or ostentation, hurry beyond their depth.

"3. Granting that there is a certain amount of danger in gymnastics, does it follow that we should condemn and abandon them? By no

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means. There is danger everywhere in this world, and in every thing. There is danger in taking a walk, a drive, a ride; there is danger in base ball, in cricket, in boating, in swimming, in skating, even in croquet. But you all say of these things that the good to be got out them more than counterbalances the danger attending them. I insist that the same may be said and ought to be said of gymnastics.

"4. I boldly declare that danger is a very desirable element in exercise. There is a precious discipline in danger. Of course, regard should be had to the years and judgment of the gymnast; but I consider no man educated who is not educated to meet danger, grapple with it, and conquer it. And any system of gymnastics which leaves out danger is an emasculated system. There is a whole hemisphere of magnificent faculties which such a system does not touch—the cool eye, the unquivering nerve, the steadfast grip, the unerring thrust, the infallible spring.

"But what I am saying upon this subject is tame and lame compared with what has been said upon it by the greatest living master of English prose. You can not fail to know whom I refer to. You already know my enthusiasm for our splendid Col. Higginson—my enthusiasm for him, both as a gymnast and as a literary artist. There, Thompson, you are nearest the shelf; kindly hand me down the 'Out-door Papers'—that most exquisite, wise, and gracious Bible of Physical Education. I know the book almost by heart; but I will read from the chapter on 'Gymnastics' the passage which, as you will see, states with a beautiful and forcible eloquence what I have just uttered so inadequately. Let me see—here it is:

"'An objection frequently made to the gymnasium, and especially by anxious parents, is the supposed danger of accidents. But this peril is obviously inseparable from all physical activity. If a man never leaves his house, the chances undoubtedly are that he will never break his leg, unless upon the stairway; but if he is always to stay in the house he might as well have no legs at all. Certainly we incur danger every time we go out of the front door; but to remain always on the inside would prove the greatest danger of the whole. When a man slips in the streets and dislocates his arm, we do not warn him against walking, but against carelessness. When a man is thrown from his horse and gratifies the surgeons by a beautiful case of compound fracture, we do not advise him to avoid a riding school, but to go to one. Trivial accidents are not uncommon in the gymnasium, severe ones are rare, fatal ones almost unheard of—which is far more than can be said of riding, driving, hunting, boating, skating, or even coasting on a sled. Learning gymnastics is like learning to swim—you incur a small temporary risk for the sake of acquiring powers that will lessen your risks in the end. Your increased strength and agility will carry you part many unseen perils hereafter, and the invigorated tone of your system will make accidents less important, if they happen. Some trifling sprain causes lameness for life, some slight blow brings on wasting disease, to a person whose health is merely negative, not positive, while a well-trained frame throws it off in twenty-four hours. It is almost proverbial of the gymnasium, that it cures its own wounds."

The effect produced by this speech was most happy. The subject being thus opened for discussion, a large number of our members took part in it. Among the rest, our old friend, Abdiel Standish made a few remarks:

"God 'lmighty seems to have fitted up this world with man-traps of all sorts and sizes. Some are on land, some on water, some in the air, and some under ground. But thar they are; and every body which lives in the etarnal world has jist got to run the risk o' gittin' into 'em. I s'pose they wus put here fur some good purpus—prob'ly to make folks keep their wits about 'em, and not go sleepin' and blunderin' through life. And I s'pose one objick of a gymnasium is jist to larn our young folks how to go out into a world full o' man-traps and not fall into 'em.

"I've heerd some folks here to-night say that for their part they won't never come near this gymnasium agin, because it's dangerous. They 'mind me of a Dutchman down to New York who was telling that he once belonged to a fishing party, of whom all got drownded 'xcept hisself. Somebody asked him how it was that he escaped. 'O, I shust staid at home and did'nt go mit der barty.' Wal, it's sartain that a man won't get drownded if he never goes near the water; but then if he never goes near the water he'll never ketch any fish. So a man 'll never break his arm in a gymnasium if he never goes near one; but then perhaps he'll suffer forty times as much from dyspepsy for stayin' away."

After a great variety of opinions had been expressed on both sides, the discussion was closed by Parson Bland, who made some very sensible remarks. He said that "a gymnasium was very much like the great world outside of it; in either place, if a man blundered from

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folly, rashness, or impatience, he had to suffer for it. Nor was a gymnasium an instrument merely for cultivating muscle, but for cultivating self-possession also, concentration, courage. Is it not most important to cultivate courage? Certainly! Well, then, it is impossible to cultivate courage except by exercising it; but there is no exercise for courage where there is no danger. Of course, there must be prudence, discrimination, common sense, in the gymnasium, as everywhere else.

"Judge Fairplay has given us a quotation from that noble book of Wentworth Higginson's, the 'Out-door Papers.' If the Judge will pass the book this way I will read another brief passage bearing upon the present subject. It is on the chapter entitled 'Physical Courage:"

"'Once rouse the enthusiasm of the will, and courage can be systematically disciplined. Emerson's maxim gives the best regimen: "Always do what you are afraid to do." If your lot is laid amid scenes of peace, then carry your maxim into the arts of peace. Are you afraid to swim that river? then swim it. Are you afraid to leap that fence? then leap it. Do you shrink from the dizzy height of yonder magnificent pine? then climb it, and throw down the top, as they do in the forests of Maine. Gœthe cured himself of dizziness by ascending the lofty stagings of the Frankfort carpenters. Nothing is insignificant that is great enough to alarm you. If you can not think of a grizzly bear without a shudder, then it is almost worth your while to travel to the Rocky Mountains to encounter the reality.'

"I have only this to add. Gymnasts, are you afraid, owing to what has happened this evening, to whirl on the parallel bar? Then join me immediately after this meeting, and let us go and whirl on it."

The meeting immediately broke up; and nearly every young fellow followed the idolized minister into the Hall of Exercise, and grappled with the ghost that threatened to scare so many people away.

As the company finally dispersed in great glee, I heard one quiet villager say to his neighbor: "Wal, whoever gits ahead o' these gymnasts has got to git up purty airly in the mornin', and carry a good many guns all day!"

ONE of the speakers at Yale College the other day said, that whereas other colleges turn out and expel their worst members, Yale is understood to have always turned out the best of men.

Must We Ever Whip?

BY FRED. B. PERKINS.

A SHORT paper in THE HERALD OF HEALTH gives too little room to discuss, in full, the question of corporal punishment in schools. But no paper can be too short to furnish a few good hints, and that is all I hope to do now.

Brute force is very near the surface of our society at present, Christian and civilized as it thinks itself. It is brute force in blue uniform, and with a club, for instance, that keeps New York city in decent order. Not only that, it is brute force that stands close behind every grave and impartial judge, and that after the judgment is rendered, steps peremptorily out in the person of sheriff or constable with his sarcastic "greeting" in his fist, and levies execution. It is more natural perhaps, to use violence in criminal cases, but even in civil cases, it is really the sole doer of the commands of the law, the sole regulator of the immense masses of property and rights that our courts handle. Who would pay the debt, and still more, that peculiarly irritating item, the costs, just because an old gentlemen up in the Courthouse said he must, if Mr. Sheriff were not ready to make him? Not one man in a million.

Now, in the future perfect state of man, self-control is to take the place of coercive law, and then the brute force element of government will disappear. And this, I apprehend, is as correct of schools as of commonwealths.

Of course, brute force is comparatively a low and vulgar and debasing instrumentality. It is to be used only where unavoidable, as little as possible, and is to be utterly gotten rid of as soon as may be.

Therefore, the right rule as to whipping in schools is not universally one of entire disuse, nor should it be one of frequent practice, but just such a rule as applies to all the rest of human society, such a rule as accounts for the use at present of many practices that human progress will one day do away with, no total disclaimer, total disuse if possible, a minimum of use when necessary, and an advance beyond it at the earliest moment.

The whipping of a young lady in one of the schools of Cambridge, Mass., a few months ago, was necessarily wrong. Even if it was true, I do not say it was, that under the circumstances the teacher could not avoid it, this would only prove that the teacher was totally unfit for the profession. This particular whipping made a great stir, it has elicited discussions, debates, newspaper articles, from all sorts of Massa-

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chusetts folks, and on both sides of the question.

The weight of authority, and the weight of argument, in this Massachusetts debate, have, I think, been rather in favor of the entire disusers. Philanthrophy, civilization generally, personal delicacy, are all very powerfully developed influences in that splendid old commonwealth, and they have to a great degree, enlisted the better feelings against allowing any corporal punishment at all. This is the better error of the two. If there were no scholars in any schools except Massachusetts' young ladies of sixteen, I should go unconditionally for the abolition of corporal punishment. But there are others.

I shall add an experience of my own on this point, which satisfied me, and still satisfies me, that there may be cases where whipping is really necessary. This is the story.

Some twelve or fifteen years ago, I was teaching a district school in Connecticut, in the only town where I ever found native-born Connecticut Yankees unable to read and write. The place had been below par, indeed, in intelligence and education ever since the Revolutionary War. My schoolhouse was an old-fashioned, one story one, with wooden desks (elaborately carved by generations of jacknives) all around the walls, cross desks along the middle of the room, and backless benches for seats. There were two rooms—I had a lady assistant for the junior pupils—and about a hundred and fifty "young ideas" came regularly thither to learn "how to shoot" (they shot "spit-balls," among other things, whenever they got a chance). So overfilled were the rooms that on all the benches the pupils sat crowded, elbow to elbow, closer than soldiers in a line of battle. There was a new schoolhouse in process of building, by the way, but by a strange coincidence, the nephew of one of the school committee was engaged in my stead when that was done. Mine was a Tophet of a schoolroom.

Well, there were three boys who came to school for two reasons: first, because their parents made them; and secondly (seeing they had to come), simply to make trouble. They were the oldest boys in school, and the worst scholars, and the least disposed to learn. They were all sulky, but the oldest with a really gloomy sullenness, while the other two had a good deal of fun in them. For a long time I got along after a fashion, by inflicting no penalty, except that of "keeping after school," and even this, not exactly by way of penalty. In order to enforce some order and study, I exacted an immense deal of written work from all hands, furnishing stationery myself, and daily examining a monitious handful of specimens of spelling, definitions, and composition exercises. If these were not pretty carefully done, I kept the delinquents after school, not to punish them, but to have them repeat the work, for in school there was no time for this.

This plan succeeded nicely with every body except the three who bungled and sulked on, week after week, as determined as a Jesuit missionary perseveres after a martyr's crown. Then their parents forbid their "staying after school," because they must "do the chores," which was reasonable enough, perhaps. Now my three rascals grew rapidly worse. They cared neither for amusement, kindness, remonstrance, nor rebuke. Tired as I was, I used to invite them to my room and show them divers sports and stories, which they enjoyed to the full, and next day they were uglier than ever. Their example began to infect the rest of the school. Finally, the scamps invented a funny trick enough, but scholastically speaking, a dreadful crime. They got up to the top of the chimney, which rested on the garret floor, having a hole below to let in the stove pipe, and they dropped a flag-stone neatly over the stove pipe hole. It was a miserably cold winter, and they gave us green wood to burn, and let any body imagine the bitterness and solidity of the smoke that morning! It was out of the question to keep school, and in the course of the day an ingenious committee-man contrived to eliminate the flag stone, or else, there would have been no more school that winter.

I asked the committee to remove these boys. "No; sorry, but it couldn't be done; their parents paid the rate, and had a right to send the boys, I must get along with 'em somehow." "But," I said, "they are demoralizing the whole school. They are too old to be influenced without too much neglect of all the rest, and it is unjust to all the rest to let them stay." "Can't help it," said the committee; "guess you can get along with 'em somehow another."

I thought I could. I took occasion of some joint prank of theirs within a few days, and in solemn assembly of the school next morning I stated the case, drew forth a rawhide which I had procured, and summoned the biggest of the terrible three to come forth and be whipped. He bluntly refused, and defied me to bring him out. I "went for him." He met me half way, as if to fight me, and with doubled fists, but as I aimed a straight left hand hit at his face, he was prudent enough to dodge the blow and fall on the floor. I do really believe that the sole

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reason why those fellows respected me at all was, that they thought me an efficient boxer. Their favorite fun at my room was, for one of them to put on a pair of my boxing gloves, while I put one on my right hand only, and knelt down, letting my opponents come freely at me like dogs at a chained bear. They were strong, active, fearless, and combative, and it really made quite a "glove fight." But I suppose they thought I could thrash any two men in town if in earnest; and so master Tom dropped. I lugged him up, carried him to the platform, tore off his jacket, and thrashed him just as hard as I could, until he yelled like a mad beast. Then I flung him on the floor and told him to "clear out;" and he did. Then I called out the other two, who submissively came forth and received furious thrashings, indeed, but not so severe as the Rebels. And I sent them off, too, telling them to come back next day if they chose.

They never came back, I meant they should not. I had planned to whip them out of school, because, actually, I could get rid of them in no other way. They were destroying my discipline, getting no good whatever, and simply tormenting the whole institution and swindling the school district for their own brutal fun.

A few days after this, the three boys were taken up for a long course of petty stealings from the country store near by, extending back for many months. They were to have been tried, and their guilt was not denied at all; but the matter was, I believe, hushed up in some way. I mention this circumstance because it shows that they were really criminals, and as unfit to remain among the decent little folks of the district as rattlesnake poison in a man's blood. No district school discipline would have touched these fellows, I doubt whether a reform school would, and a prison would have ruined them. The only chance would have been to send them off before the mast on a whaling or some other long voyage, under a just, but severe captain.

Now, I do not claim that there are such cases in every school. But there are a few. Nor do I claim that violence was absolutely necessary for those three fellows, taken alone. I believe that if I had had nobody else to attend to, and could have devoted myself to them like some tutor to three young noblemen, I could have made decent men of them. But the rest of the school had rights as well as they. It was out of the question to neglect a hundred and forty good pupils for the sake of three bad ones. I absolutely could not get them out of school without brute force. If they had staid after their scourging, again, they would have been quiet from fear. My authority was as despotic as any king's from that moment; and, I found out I was not less respected among the seniors. The parents of these three *whippees* threatened lawsuits, but I only said "go ahead!" whereupon they did not. I will add that in the few other cases where I inflicted corporal punishment in that same school, I am now satisfied that I erred, and I have been sorry enough. So that I come at the end to the same doctrine that I began with; that while corporal punishment is, in my opinion, sometimes absolutely unavoidable, it should be most solicitously shunned as long as possible.

RAIN.—Dr. Trench, the Medical Officer of Health for Liverpool, has satisfied himself by a series of careful observations extending over a number of years, that there is an inverse ratio between the amount of rain and the amount of mortality from infantile summer diarrhea. To the same effect are the tables given by Mr. Macpherson illustrating the relation of moisture to the mortality from cholera in Calcutta. According to these tables, the least mortality from cholera in Calcutta occurs in the months of July, August, and September, which are emphatically the wet months.

No doubt but rain is a great cleanser, taking out impurities from the air; it also washes away an immense amount of filth from the streets and gutters of large cities; it lays the dust which would otherwise irritate the air passages. Sunshine, however, is equally important. In seasons when the rain is too abundant, vegetables are insipid and watery, and less wholesome than when there is plenty of sun to ripen and perfect them. By proper care of the body and strict cleanliness, the seasons, whether wet or dry, need not very perceptibly affect the amount of sickness. It is principally our bad habits and filth that make some years more unhealthy than others.

HON. THOMAS F. FOSTER, a member of Congress, from Georgia, once begged an honorable member, who had persisted in a long, prosy speech, to desist.

"I shall not desist," he replied; "I am not speaking for the benefit of the honorable gentleman from Georgia. I am not speaking for this House. I am speaking, sir, for posterity."

"Yes, sir," replied Foster, petulantly, "and if you keep on a little longer, posterity will hear you."

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The Rechabites of Old.

BY PHŒBE CARY.

They came and brought the Rechabites,
Who dwelt in tents of old,
To chambers decked with tapestry
And cunning work of gold;
And set before them pots of wine
And cups that mantled high,
But when they tempted them to drink
They answered fearlessly,

And said: "Our father, Jonadab,
The son of Rechab, spake,
Commanding us to drink no wine
For ever, for his sake;
And we dare not break his covenant
To do this wicked deed,
Lest our father's God desert us
In the places of our need."

And He, who heard the Rechabites
And loves a faithful heart,
Pronounced a blessing on their tribe
That never shall depart;
Saying: "Though the land be wasted
By famine or by sword,
This people shall not lack a man
To stand before the Lord!"

Thus will we taste not of the wine:
And though the streams should dry,
Yet the living God who made us
Will hear his children cry;
For Moses smote the solid rock,
And lo! a fountain smiled,
And Hagar in the wilderness
Drew water for her child.

And the beautiful and innocent
Of Nature's living things
Drink nothing but the crystal wave
That gushes from her springs;
Earth calls her strange wild creatures
With the voices of her rills,
And answers to the lowing
Of the cattle on the hills.

The herb that feels the summer rain
On the mountain smiles anew,
And the lily from her silver cup
Drinks only of the dew;
And we will drink the water pure,
And taste of naught beside,
And He who blest the Rechabites—
The Lord—will be our guide!

Men are content to be laughed at for their wit, but not for their folly.

Thoughts.

Play.—He who refuses to play is but a stately fool. To sport and gambol with children is one of the sweetest lyric songs of life; grown people should remember that, as an end of all exertion, even the slightest, should be profit; play should be based on an intelligent idea; people may be mirthful without being silly, just as they may be grave and not gloomy; a mind in right order can descend into frolics as readily as it can soar to magnificent ideas, for it is the characteristic of well-disciplined intelligence, and of purity and earnestness of the affections, that they are universal in their capacity.

Afraid to Think.—Being afraid to think is, perhaps, the chief reason why the majority of people are so disinclined to think—to think what is beyond the little circle of their bodily wants. There can be few who are really unable to think, otherwise thought and happiness would not bear the natural relation which they do. Put a grand idea before the majority of people and they will be frightened away from it. This is mental cowardice. To be afraid of a new idea shows mental inferiority.

Delicate Women.—Many of the complaints heard from the delicate young women of our day—as want of vigor, inability to bear exposure, deficiency of strength to walk far—may be traced to want of useful occupation. Power, let them understand, comes not from reading senseless fiction, but from steady and well-directed work, coupled with good habits for the body and brain. Seeking to improve themselves, as intelligent beings, and observing the natural laws of the body, our young ladies would not find much occasion to consult the doctor.

Work.—Work never killed or hurt any one who knew how to go at it. See what order there is in nature—what sublimity and ease! How still, yet how rapid the growth of the plant. How peacefully the stars of midnight seem encamped, yet before morning whole armies of these wonderful balls of earth have been carried out of our sight. So much is achieved because all is done in order, at the right time, intently, deliberately, yet without hesitation, friction, or indecision.

While a child was eating candy at Bridgeport, Conn., the other day, it got a torpedo in its mouth which exploded and blew out three of its teeth and tore its lips.

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How to Live;

OR, TEMPERANCE IN A NUTSHELL.

BY L. N. FOWLER.

NEARLY every Temperance lecturer has an "experience" to relate. I have one, but it is different from those which are generally proclaimed from the platform, or recorded on the printed page.

In 1827 I resolved to throw my influence into the scale of Temperance, and solicited a number of my associates to meet together and sign a pledge "to abstain from drinking alcohol." Thus, in my boyhood I helped to form the first Teetotal Temperance Society that was formed in America, little dreaming what an avalanche of influence would be thrown in the same direction in coming years by the Beechers, the Dows, the Marshes, the Goughs, the Hewitts, the Lees, the Trevelyans, the Liveseys, the Whittakers, the Munroes, the Noels, the Tweedies, the Forsyths, and many others.

When about twenty years of age I asked my father if I might go from home as far south as New Orleans. My father had been an "abstainer" from every kind of intoxicating drinks from his youth. He replied, "My son, I am afraid to have you go among such impulsive and excitable people, who fight duels, dissipate, and drink on all occasions, especially as they regard a refusal to drink with them a great insult." I replied "that I was very anxious to go, and I thought I could get along without drinking or insulting any one."

He finally consented, and I went to Natchez, Mississippi.

At that time there was more intoxication in Natchez than in any other town in America, and the health and lives of the people were sacrificed most fearfully. Almost every man whom I met, professionally, felt as if he must treat me to a glass of wine or brandy; but I invariably replied, "I do not like any form of alcohol, and can not drink it."

As it was the universal custom, I found that I must take a decided stand. "To drink, or not to drink," was the question. Being willing to hear the arguments on both sides, so that I might decide without prejudice, I called to see a man who was in the habit of continually drinking. He was intoxicated nearly all the time. His brain was literally "pickled" with alcohol. I said to him, "I am a young man just starting in life, and have all my habits yet to form. I perceive that there is a great deal of drinking throughout this section of the country, and knowing that you have had great experience on the subject, I came to ask you if you would advise me to commence drinking alcohol?"

"Drinking!" he exclaimed, "if you want to live in wretchedness in this life, and go to hell when you die, follow my example; form the habit of drinking. I expect no happiness here or hereafter. Take my advice, do not touch a drop, do not form the habit. This is the only safe course to pursue, for when the habit is once formed it frequently becomes so strong that it is impossible to break its iron chains."

I thanked him for his advice, and decided to follow it to the letter; and though I have been constantly engaged for 35 years in mental labors—that exhaust the system more than severe manual labors—yet I have never felt the necessity of using alcohol in any form.

I observed that smoking was another fashionable custom in the town. In order to profit by the experience of an inveterate smoker, I called upon a gentleman who was seldom seen without a cigar in his mouth, except when he was eating or sleeping. He was constantly smoking, smoking, smoking. I said to him, "I am a young man just forming my habits for life; would you advise me to learn to smoke? I have been told that, in order to like to smoke, it is necessary to *learn* to like it."

"Advise you to smoke!" he replied, "If you want to avoid the worst kind of slavery, to have peace of mind, health of body, in fact, to be a free man, by all means avoid smoking. I am the greatest slave in this country, and feel the fetters every hour of my life. My nervous system is completely unstrung, and I would give half of my fortune to get rid of the habit, which has fastened itself upon me with an iron grasp, and will bring me to a premature grave. I would advise you, by all means, to avoid the habit of smoking."

I replied, "I shall take your advice, for you can speak from experience." The result has been that I have never smoked a pipe or cigar.

I observed that many men chewed tobacco. They were always chewing and spitting; and nearly every one I met asked me to "take a quid." Anxious to benefit from a man of experience, I went to one who chewed tobacco from morning till night. He had worn off his teeth, but still persisted in the practice. I said to him, "I am about forming my habits for life; I have not yet learned to chew tobacco; do you advise me to commence?" He emphatically replied, "If you want one of the foulest habits a man can have—a habit which you can not break, one that will bring other habits in its train, one

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that will gather strength day by day; if you want to be a slave to a habit that you will abhor every time you practice it, then learn to chew tobacco. But if you want to lead a pure life, let it alone. I have repeatedly resolved that I would never touch it again; but just as often broken my resolution. The appetite, when perverted by tobacco, is more insatiable than when perverted by alcohol." I have strictly followed his advice, and have never had tobacco in my mouth.

I observed that the people in that section of the country were in the habit of taking snuff. Some carried it in their vest pockets, and every time they told an anecdote, made a joke, read a newspaper, or met a companion, they took a "pinch." Others carried boxes in their pockets, and it was a universal custom when they met their friends in the social circle, to pass round the snuff-box; and every one was expected to take a "pinch." Thinking there must be some enjoyment in the practice, I asked a man who had taken snuff for 30 years, "if he would advise me to commence the practice?" He was a very intelligent man—one whom I esteemed, and I thought he would be capable of giving me good advice. He immediately replied in a very decided tone of voice, "Never learn to use snuff. The nose was not made to crowd snuff into it; but when the filthy habit is once formed, it is impossible to break it. I have been a snuff-taker for 30 years, and can speak from experience. My nervous system is ruined, and, as I look at the past, I know that I have scolded my wife and children many times simply because I have been so nervous and irritable. My natural disposition has been soured and my organization has been so much impaired that I am ill nearly all the time. I have in vain endeavored to break away from the habit, but I can not do it. I hope I am a Christian; yet I am so strongly fettered by this vile habit that I yield to it every day of my life, at the expense of my constitution. If you wish to be free from a habit that will only do you harm, *never* learn to use snuff." I followed the advice of this man and have never had a wish to take a pinch of snuff. Thus, throughout my entire life, I have been entirely free from the habits of smoking, chewing, snuffing, and drinking—an "out-and-out" Temperance man—and I believe I have had a great immunity from disease because I have led such an abstemious life. I can therefore present the advantages of Temperance as well as dwell on the evils of Intemperance.

I love the cause of Temperance with my whole soul. I loved it in my youth for its own sake, when it was unpopular to be known as a Temperance man. My earliest labors were devoted to it, and I hope my last efforts will be to promulgate its tenets. There is only one cause more worthy—the cause of religion; and that can not flourish without it has Temperance as its basis. In fact, intemperance has nothing to do with religion, while Temperance is at the foundation of all that is worthy to be encouraged. We are commanded "to be perfect;" but a command must be understood before it can be obeyed. We can not comply with laws till we understand the requirements of those laws. In order to be practical, I must treat the subject in a plain manner. My object is to convince the understanding, to increase moral capital in favor of the cause, and to make all feel the force of the statement, that if society is ever to be improved, it must be improved socially, physically and morally.

Different individuals advocate different methods by which these ends can be attained. Some would pursue coercive measures, and make all men yield to the force of law. Others would persuade men, and say, "Come, let us reason together." Both are good, and are necessary to reach different minds, and, if properly blended, they would clear the land of intemperance.

My definition of Temperance is: To eat, drink, and do that which nature requires for life, health, and real happiness.

My definition of Intemperance is: To eat, drink, and do that which mars happiness, injures health, and shortens life.

As is the condition of the body, so is the condition of the mind. I would like to impress this principle indelibly on the understanding of every one. Physiology teaches us this most important lesson, and it is in the light of this science that I wish to show the folly, nay, the unprofitableness of intemperance. We can not separate the condition of the body from that of the brain. If the body is in a good condition, if the blood is pure, if the muscles are healthy, if the bones are sound, if the nerves are steady, if the circulation is good, and if the temperaments are harmoniously blended, then the mind can be developed without any hindrances or stumbling-blocks. As the body is the soil in which the mind grows and expands, it bears the same relationship to the mind as the soil does to the crop of wheat. In proportion as the soil is good, there will be a good crop; but if the soil is bad, no matter how good the seed is, the crop will be poor—much poorer than if the seed had been poor and the soil good. This principle is not sufficiently understood. The body is neg-

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lected, its education is almost entirely overlooked, and it is daily abused in a variety of ways; hence we see so many enfeebled bodies, impaired mental energies, and premature deaths.

Another important principle is, that what we eat and drink has a powerful influence on the condition of the body.

The appetite was not given to man to enable him to have an excuse to eat and swallow every thing he can put into his mouth. It was intended that he should eat only what he requires from day to day to nourish the body, so that he may have strength to direct the energies of his body, and develop his mental powers. But man has acquired the habit to eat not only what he needs, but also many things that irretrievably injure his constitution. Some persons do not discriminate between a natural and an artificial appetite, and they take no pains to control the latter any more than those who are inclined to be angry attempt to control their anger. Children should be taught to control their appetites, and only that food should be eaten that is prepared in accordance with the wants of the system. There is a gradual improvement in this respect, and in proportion as parents understand physiology will they train their children in compliance with the laws of life and health. Farmers are beginning to understand how to feed their stock so as to make them more valuable for the market. Agriculturists are beginning to learn how to produce better crops than they did at a former period, and we have better food in proportion to the dissemination of knowledge. The early grains and grasses were adapted to the condition of the men and animals that lived one thousand years ago. The men were of gigantic proportions—many of them, in fact, were giants, and the beasts were of huge size. But men and animals have improved, and the grains are also better in quality. The land is in a better condition after it has been tilled and plowed for many years than when left in an uncultivated condition. At first, the earth was unfitted for the residence of man, but when he was placed upon it it became his dwelling-place, and he has continued to improve it to the present time.

In conformity with the two principles to which I have referred, we perceive that whatever benefits the body benefits the mind, and whatever impairs the mind damages all that depends upon it; hence the well-being of society depends upon the healthy action of both body and mind.

Habakkuk says, "Be not drunk with wine, wherein is excess." The human race is constantly damaged by excesses of various kinds, and the sin is in proportion to the evil connected with the particular form of the excess. Every excess connected with the body or brain is a kind of intemperance. We may see this exemplified in the excessive labors of the clergyman, who endeavors to promote the happiness of others at the expense of his strength; in the excessive labors of the physician, who sacrifices his own health and life in order to save the lives of his patients; in the excessive labors of the mother, who may overwork herself and become ill while endeavoring to take care of her family. Any excess connected with the exercise of the different powers of the body and mind is intemperance. This is a broad and comprehensive platform, and it would require many lectures to elucidate it fully; but no candid person can deny that Temperance consists in eating as much food as the body requires to nourish it, in drinking as much liquid as is necessary for health, in sleeping as many hours as will restore the body to its vigorous state, in thinking and exercising all the mental faculties to their fullest extent without injury. If this definition of Temperance is correct, every thing that is in antagonism with the above conditions is intemperance.

In view of this self-evident proposition let us inquire how the case stands with regard to the use of alcohol and tobacco. A man can not eat tobacco as he can eat bread, nor can he drink alcohol as he can drink water. Alcohol does not quench the thirst, neither does tobacco allay the pangs of hunger. Both materially affect the stomach and derange the whole system, more particularly the nervous system. They will not prolong life, increase health, nor promote happiness.

The constitution is much better without than with them. Health does not require them, and diseases can be relieved, and even cured, without their aid. The special effects of alcohol and tobacco are to derange, disease, and destroy the tissues of the body. All of the vital functions are affected by their use. They are enemies to the entire system, which is agitated till they are expelled, when it is left in a debilitated condition. Every one loathes them at first. When alcohol is first introduced into the mouth, the mouth rebels, the throat refuses the alcohol poured into it, and the stomach is irritated at its approach, and makes a powerful effort to expel the burning fluid. It is then taken into the blood, sent to the lungs, comes back to the heart, goes over the entire surface of the body,

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and the body attempts to send it out through the pores of the skin, but the lungs and the skin struggle in vain to free the system of the poisonous fluid, and the result is that it pervades the brain and produces its most direful effects. These are frequently connected with the base of the brain at first. The animal passions and propensities located at the base of the brain are excited by the artificial stimulant; the appetite is perverted, and a craving desire for food is produced; yet the appetite does not crave nutrient food, but the stimulant that perverts the appetite. It stimulates the social feelings, and leads to licentiousness; it arouses combativeness and destructiveness, and creates a disposition to contend, to quarrel, to destroy life; it excites selfishness, inflates the vanity, swells the morbid influences of self-esteem, and provokes stubbornness. It creeps around to the frontal lobe, and mounts aloft to the coronal regions of the brain, dethroning the reason and stupefying the moral sensibilities. Then we have the saddening and sickening sight, the spectacle of an embruted man, a creature made in God's image, lying senseless on the ground like a beast, yet worse than a beast—a degraded being more like a demon than a person endowed with reason. The picture is the sadder because we know that the man has drunk, *voluntarily*, the abominable stuff that has produced these blasting consequences. Man has no right to do any thing, eat any thing, or drink any thing that will mar the image of God. It is his duty to keep that image unblemished, to make it reflect as much as possible its heavenly origin. Some say that a man has a right to do as he pleases; but, morally speaking, he has no right or liberty to do wrong; he has no right to violate the laws of his constitution, and thereby derange his health; he has no right to drink that which produces disease and such disastrous consequences that the entire nature is changed, and becomes perverted. Physiology and chemistry come to our aid, and teach us the effects of alcohol on the system; and it may be well to allude to the fact, that alcohol is a part of all the drinks that are common beverages. Some of the most scientific men have analyzed these, and tell us that in whisky there is 53·90 per cent of alcohol—more than one-half; in rum, 53·68; in brandy, 53·39; in gin, 51·60; in port wine, 23; in cider, 7; in ale, 6·5; in pale ale, 5 to 9 per cent. If alcohol were food, and nourished the body, it would be well to take it; but as it has been proved to be a poison, and counteracts the digestive process, it only does a harm to the system. It changes the chemical properties of the saliva, which is necessary to commence the digestion; it decomposes the gastric juice in the stomach, and renders it unfit to digest the food. I know it has been said that beer will aid digestion, but I shall have a word on that by-and-by. There have been many experiments to prove that food remains a much longer time in the stomach of the man who takes alcohol, before it is digested, than in the one who never takes it, and that it tends to produce dyspepsia and indigestion. Alcohol disorganizes and deteriorates the blood by affecting its constituent parts, the liquor sanguinous and the blood discs. As the blood loses its vitality, it is not surprising that the heart itself should suffer, become enlarged or hypertrophied, and be subject to "fatty degeneration," by which it loses its muscular power and renders a person liable to die very suddenly, without any premonitory warnings. Alcohol congests the capillary vessels of the brain, hardens its tissues, affects the nerves, disturbs the mind, and destroys the intelligence. The brain of a man who is accustomed to drink alcohol is less susceptible to receive mental impressions, and his body becomes so debilitated or deteriorated in strength, that when the man meets with accidents he recovers from them much more slowly than the man who is temperate.

Many really suppose that the "mild, pale, old, bitter ales" aid digestion and assist in the nourishment of the body; but, according to the French doctors Lallemand, Perrin, and Duroy, who have made many experiments, alcohol comes out of the body alcohol. It does not assimilate with the food, but the body treats it as if it were its enemy, and endeavors to eliminate it as quickly as possible from every pore. If it remains at all, we can easily see from the following analysis that it is of no use. A pint of pale ale contains 20 ounces of liquid. Let us see what these 20 ounces contain: 18 ounces of water, 2 ounces of alcohol, 240 grains of sugar, 40 grains of ascetic acid, and a small quantity of hops; so that out of a pint of 20 ounces, nearly all of it, or 18 ounces, is water, while alcohol is the remaining 2 ounces. Hence we conclude that ale, with the exception of a little sprinkling of sugar, acetic acid, and hops, is only water and alcohol.

Persons make all kinds of excuses for drinking alcohol. Some drink because they have hard labor to perform, which requires an extra outlay of strength and an extra stimulant; others, because they have been to work, and are exhausted, or, on the other hand, have nothing to do; some because it is too hot, others because it is too cold, some because it is too wet, others

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because it is too dry; some are sleepy, and want to keep awake; others are wakeful, and want to go to sleep; some are alone, and use it as a boon companion; others are social, and in company can not refrain; some require it because they are about to make a speech, while others have just made one; some are sea-sick, and others wish to prevent it; some are going to battle, others have been in battle; some wish to get an appetite, others have one and wish to gratify it; some wish to aid digestion, others wish to cure dyspepsia; some have just been married, and others have lost a companion; some wish to celebrate the birth of a child, others to bewail its loss; some drink because they are afraid to say no, others because they like to say yes. In fact, there is no end to the excuses that men invent when they wish to stifle the voice of conscience, that so often tells them that an abstemious life is preferable to a life of dissipation.

Many suppose that alcohol is absolutely needed as a medicine. This is a great mistake, and if physicians could be disabused of the idea that stimulants are necessary to restore the patient's health, we should have a fulcrum on which to rest a great moral lever which would overturn the intemperate world. Dr. Carson, President of the Medical Association of Pennsylvania, and many other physicians, assert that "neither wine, malt liquors, nor alcohol are necessary for medicinal purposes, and that there are more harmless agents in the laboratory which have all the virtues attributed to alcohol." If this fact could be impressed upon the minds of the people, one of the greatest hindrances to the progress of Temperance would be removed. If a person is at all debilitated, he is ordered by his physician "to take wine, brandy, porter," etc. The result is, that such a person, if he likes stimulants, will be sick nearly all the time. Even if the Maine Law or Permissive Bill were strictly enforced, it would be impossible to arrest the downward strides of intemperance, so long as alcohol is sold and drunk as a medicine; for the sick list will always be full if alcohol is the favorite remedy. If people breathed pure air, took sufficient exercise, and the right kind of diet, they would not need any medicine, and then there would not be the temptation to use stimulants. Scores of men and women have become drunkards by taking alcohol as a medicine. It would be far better for a man to die of cholera or fever, than to recover from it, and, by yielding to the appetite for brandy which he acquired during his illness, live to degrade himself and all his relatives, and finally die a drunkard's death. The stomach and alimentary canal of a man who has cholera are inflamed by the disease, and it seems a singular practice to inflame them still more by pouring into them the burning fire of brandy, which would augment the flames rather than extinguish them. Far better to put out the fire by hydropathic appliances than to rekindle it. The same is true of other diseases. Their treatment could be greatly simplified. Banish alcohol from the drugshops, and half or two-thirds of the Temperance work will be done.

Alcohol produces three Social Evils. First, domestic misery. It is impossible for the tongue to describe the harrowing miseries that are brought upon a family by an intemperate father and husband. Broken-hearted, dejected wives; pale, sickly, starving children; poverty-stricken homes, destitute of the ordinary means of comfort, are the natural consequences. The half-starved, half-clad children of the drunkard are sent into the streets to beg and steal, and they either go to the poorhouse or are brought up surrounded by all the disadvantages and disheartening influences of poverty caused by the intemperance of an unnatural father. This should be a sufficient cause to induce legislators to banish alcohol from the community the same as they banish any other vice, evil, or crime. The sooner they do this the sooner they will close workhouses, prisons, and penitentiaries.

The second Social Evil resulting from intemperance is that which is entailed on posterity. "The fathers eat sour grapes, and the children's teeth are set on edge by them." Innumerable facts can be adduced to prove that intemperate parents transmit intemperate tendencies to their children. The New York Casket publishes the following statement relative to eight different families in one town. The parents were *moderate* drinkers in every case. In the first family there was an only child, a daughter. A great sum of money was expended on her education, and she was very accomplished; but she died a drunkard. In the second family there was an only son. He was very talented and well educated, but died a drunkard. In the third family there were four sons and one daughter. The daughter became a drunkard, the eldest son has gone to a drunkard's grave, while the others are addicted to intemperance. In the fourth family there were three sons; one died of intemperance, one was killed in a duel, and the third is a drunkard. In the fifth there were three sons; one killed himself by drinking, the other two are drunkards. In the sixth there were five sons; four are drunkards, and one has become imbecile from excessive drinking. In

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the seventh there were five sons; two died from the effects of intemperance, and another is a drunkard. In the eighth there were five sons and three nephews; four of the sons and three nephews have gone to their graves common drunkards. These are startling facts, taken at random, and are not exceptional cases.

In 1848, Dr. Howe, of Boston, the chairman of a committee appointed to make inquiries on the subject of Idiocy, reported to Governor Briggs, of Massachusetts, that he had examined from fourteen to fifteen hundred cases of idiocy, and that from eleven to twelve hundred were the children of intemperate parents. In nearly every other case the parents were addicted to vice, were scrofulous, were predisposed to insanity, or had intermarried with blood relations.

There were 316 boys sent to the Westboro' Reformatory School in Massachusetts in the course of two years. All the parents of these boys were drunkards, and there were 261 of the boys that were addicted to drunkenness. If we examine the records of every State, we shall find the sad traces of intemperance everywhere in legible lines. From the days of Cain and Noah to the present time the world has been full of facts to prove conclusively that parents transmit both physical and mental tendencies to their children, and that intemperate parents transmit to their posterity the degenerating influences of intemperance. The children of intemperate parents are to be pitied. It takes three or four generations to wipe out the stains that intemperance makes on the family escutcheon.

The third Social Evil connected with intemperance arises from the influence that the drunkard exerts upon society. He is like a moral pestilence, a canker-worm, a plague among virtuous, temperate, and upright citizens. Idleness, ignorance, licentiousness, and all kinds of vice follow in his track. Intemperance is a robber that takes away and gives no equivalent for what it takes. It empties the pocket of money needed for the comfort of the family and gives delirium tremens as a recompense; it takes away virtue and gives vice; it takes a good spirit and gives a bad spirit; it changes an honest man into a rascal; it makes a virtuous man an immoral man, and entirely perverts the mental faculties. I might give a whole lecture from each of the above texts.

Intemperance destroys connubial love, and we never find domestic happiness in a family when either husband or wife is intemperate. A sensitive wife said to me, not long ago, "My husband has acquired the habit of drinking, and he often comes home at night intoxicated. I am mortified by his conduct, and, when he is under the influence of alcohol, he beats me and scolds the children, and I am in constant dread of his coming home every night, for fear that he has drunk too much. Is it my duty to live with such a man, and take all the consequences of his intemperance? The thought of it almost drives me to insanity, and yet when he is himself he is exceedingly kind to us all."

It is difficult to give advice in such cases, but I believe that no man would become intoxicated if he knew that he could not have the companionship of a pure-minded, faithful wife, unless he was sober, and remained sober.

Intemperance blunts the finer susceptibilities of the mind. An experienced beer-drinker, whose father was a noted surgeon in London, gave me his testimony on the subject. He had once been a distinguished surgeon in London, but early acquired the habit of drinking beer, and gradually became so besotted that he neglected and lost his practice, so that his delicate, nervous, and sickly wife supported the family by hard work. He gave himself up to a smoking, drinking, idle life. I lectured in the place where he lived, and he came to hear me, thinking that he was strong enough to resist any arguments I might adduce in favor of an abstemious life. Before the evening had passed away he was touched by the simple truth presented in a plain and practical manner. He went home from the lecture feeling both ashamed and condemned, in view of his past useless life. The next morning he threw his tobacco-box across the adjoining field and gave me his pipe. He declared he would never smoke or drink again. He came to his senses and determined to do his utmost to take care of his family. He attended to the calls he had, and in a short time a thriving business occupied his whole energies. He said to me afterward, "Beer does a man no good; it makes him dull and gross, blunts his finer feelings, and in time he cares more for his beer than for his family. He is cross if he gets it, and is doubly cross if he can not have it. He likes the comforts and convenience of having a home, and a family to attend to his wants, but he uses no endearing language to his wife and children. He never caresses the latter, nor expresses himself in tender language to her whom he has promised to cherish, love, and protect. I am an example of this. I began to drink before my marriage, and have continued to do so to nearly the present time, and though I have one of the most faithful of wives, yet I have not kissed her for 20 years, nor spoken to her in

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terms of endearment. But I shall try to do better, and become wiser as I grow older."

A man who has thus wasted the energies of his youth and manhood has neither constitution nor vigor of mind or body to transmit to posterity, and his children suffer from the effects of his weakness.

"Intemperance lights the candle of life at both ends; hence the drunkard does not live out half of his days."

A lady said to me: "A certain friend of mine has been drinking for a whole week, and he looks ten years older than he did a month since. What has wrought this wonderful change in his appearance?" I replied: "He has probably lived ten years of his life in one week, and unless he discontinues the practice he will come to a premature end, though he has naturally a fine constitution and might otherwise live to old age.

A drunkard may be naturally ambitious and energetic, but when age comes, if it comes at all, his nervous energy has been prematurely exhausted, and he has none left to sustain him. His children begin life with an enfeebled constitution, and have a shorter span of life than their father.

It is a sad sight to see a young man who has a high purpose in life, an intellectual aim, whose moral and intellectual faculties have the ascendancy over the passions, gradually yield to temptation till he falls from his high estate, takes his place as a common drunkard in the groggery, and selects his associates from those who frequent such places.

Those parents who have sons should by all means banish strong drink and all kinds of stimulants from the table, unless they wish to help their sons to form pernicious habits that will remain with them through life. On the contrary, let parents encourage their sons to form such habits as will redound to their honor and will be a source of comfort to the family.

Those parents who have daughters should banish wines and liquors and all stimulants from the table, unless they wish to help their daughters to form habits of dissipation. They should not grow up in idleness, but should acquire solid attainments, and cultivate a taste for substantial knowledge rather than showy accomplishments.

There are no greater impediments to progress than the evils that follow intemperance. A nation is composed of societies, and societies are composed of individuals. If a community of persons is besotted by the use of stimulants, that community can not be elevated in the social circle, and as the community enlarges and becomes a nation the whole nation is lowered in its tone. If we examine the history of all the great nations that have fallen, we shall find that intemperance in some form has done more to secure their downfall than any other cause.

Intemperance has a tendency to destroy good governments. This is especially true where the government is formed by the suffrages of the people; for in many instances the votes of the people are bought by beer and alcohol, and there is often more smoking and drinking on election day than on any other in the year.

The candidates for office are not exempt from these practices, and the result is that they are not so well qualified to attend to their legislative duties when they are elected, and hence the laws are not so beneficial as those made by counsellors with brains free from stimulants and narcotics, who have no interest in pandering to the appetites and passions of the people.

The query may arise, What is the most prolific cause of intemperance? Many things lead to it. The occasional use of alcohol as a beverage is a very common cause. The drinking of beer, porter, and wine at dinner, or when making or receiving friendly visits, is frequently the beginning that leads so often to a sad end. The only way to prevent this evil is to abstain altogether from the use of that which is not necessary and is only an enemy to the constitution. It may require moral courage, as every other good resolution requires it, but it is far easier to say "No" in the beginning than to attempt to reform after the constitution is broken and an appetite for stimulants implanted. Many a young man has been ruined because he could not say "No" when his conscience told him he should say it.

Rev. Mr. Ormiston, one of the most popular ministers in Canada, was invited to take a part in a festival held in honor of Washington's birthday, at the Anglo-American Hotel, in Hamilton; but knowing that the festival would not be conducted on Temperance principles, he declined the invitation and sent the committee a reply, "regretting that he was obliged to sacrifice his strong personal inclinations to be present with a large majority of staunch teetotallers, especially on such an interesting occasion." He added, "I have for the last ten years declined all invitations to be present at any place of festivity where I can not consistently maintain the principles I profess, viz.: To discountenance, in every possible way, the drinking usages so prevalent in society." He exerted a powerful influence, and all the more because his theory and practice were the same.

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Allusion has been made to another cause of intemperance, viz.: hereditary influences.

When the parents are intemperate the children are more liable to be so, and the curse extends to several generations.

One of the most fruitful causes of intemperance is the wrong feeding of children. As long as nursing mothers think that infants require sweetened brandy and water, or stimulants of any kind, porter, ale, or beer to enable them to nourish their children, we shall have intemperance. If the craving appetite for stimulants is formed in childhood, it grows with the growth of the child. As long as parents buy the good conduct of their children by promising them something good to eat if they will be good, the early appetites of children will become morbid, and as they advance in years they readily believe that the desire for stimulants is a natural demand, instead of an artificial want, and hence all kinds of excuses are framed to enable them to gratify an appetite for that which does them harm.

Ignorance is another cause of intemperance. People are not aware, when they conform to established social usages, that they are obeying the lower law of their natures by yielding to perverted alimentiveness; in fact, they rarely think of the struggle between the flesh and the spirit. St. Paul says in Galatians, "that the works of the flesh are adultery, fornication, uncleanness, lasciviousness, idolatry, witchcraft, hatred, variance, emulations, wrath, strife, seditions, heresies, envyings, murders, drunkenness, revelings, and such like, of the which I tell you before, as I have told you in time past, that they which do such things shall not inherit the kingdom of God. But the fruit of the spirit is love, joy, peace, long-suffering, gentleness, goodness, faith, meekness, and temperance; against such there is no law."

Why should not the traffic in liquor be abolished? Why should not the higher law be obeyed? It may involve a sacrifice, but there is a sacrifice now to society whenever a human being is degraded by yielding to an unhallowed appetite. Should society be called upon to imperil or sacrifice the health, virtue, and the temporal as well as the eternal happiness of its members, for the sake of filling the publican's pocket, or should the dealer in alcohol be induced to find some other calling that shall be more honorable, by which the general happiness may be enhanced? Humanity suggests that the traffic in strong drinks should be abolished at once. There are some objections that can be urged against this course, but these objections can be counterbalanced by arguments in favor of doing this. Objectors say that there are one million three hundred thousand persons engaged in the manufacture of alcoholic liquors, who would all be thrown out of employment. That the vast capital now invested would be sacrificed, and in many cases the capitalists would be ruined. That several millions sterling would be taken from the national revenues; that three firms in one small town, each of which pays more than eighty thousand pounds per year duty on the malt they make, which Government would lose, would have nothing to do if there was no porter or beer drunk, and that the value of the buildings used for manufacturing and selling liquors would be greatly depreciated.

The counterbalancing arguments are, that without this traffic society would be better than it is at the present time. More happiness would be generally diffused. Gambling, horse-racing, street brawls, and murders would be almost entirely abolished, and the mass of humanity be placed on a higher level. Courthouses, jails, houses of correction, penitentiaries, almshouses, and hospitals, would become comparatively useless. Doctors and surgeons would not have so many frightful maladies to cure, clergymen would not have so many specimens of depravity to present as beacons to warn the congregation, constables, policemen, lawyers, and judges engaged in the administration of justice would not have so much work to do, young men would be freed from the principal temptations which now beset them, and the fruitful sources of iniquity would be stayed; the most effectual means of arresting human progress, destroying health, happiness, social order, domestic felicity, and even life itself, would soon be terminated; the gates of hell would be closed, and the gates of heaven opened to receive thousands of human beings who are now on the broad road to everlasting death. In view of these things, can any one hesitate in answering the questions: Will it pay to abolish the liquor traffic? Will it pay to reform the character of our population, to promote their health, happiness, and usefulness, to lengthen their lives, to enhance their domestic felicity, to make them virtuous, to strengthen their judgment, to increase their knowledge, to elevate their feelings, and to purify their sentiments? Will it pay to make men and women better and wiser, to advance the world in righteousness? I would reply: It will pay, and by all means let each one do his or her part toward hastening the glorious day when men shall prefer to be pure and righteous rather than the opposite.

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The Physiological Anatomy, Physiology, and Pathology of Man.

VIII.

BY RUFUS KING BROWNE, M. D.,

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OF THE FUNCTIONS OF ORGANS.

THE function of an organ is nothing more than the process which takes place in and through or by means of it. It always involves the anatomical constitution or build-up of the tissues composing it, and their physiological character and evolutions.

Thus: the liver is an organ, and its function is a process—namely, that of secretion. The product of this process is one of the composite fluidified substances we call a secretion.

The liver is composed of a large number of cells intimately combined or in organic cohesion, with fine (capillary) bloodvessels, fibers, and tubes.

It is regularly, in health, in the process of producing a slimy or viscid substance, of a composite character, called the bile. It is in close contiguity to the stomach, or gourd-like bulging of the intestinal canal, and through every part of it passes the blood which already has been to the stomach, and is turning back toward the heart. The channels through which this blood had passed at the stomach were arteries and capillaries, but from this it passed into the great vein of the liver, which breaks up into a second set of capillaries, carrying the same blood, or rather the blood which has passed its arterial stage on leaving the stomach, and was changed to venous. From this second set of capillaries, of one and the same arterial vessels, transudes the materials which, diffusing through and between the cells, undergoes a change, due to the active influence upon it and impartation to it of the cell substance. In this process the change of character of the fluid transuded from the blood is a change of properties.

The process of this change is not the mere passage into and through the gland textures of fluid blood substance transuded from the capillary wall, nor is it a process in which merely the former acts upon the latter, but it is one in which some substance in the cell-like and soft-solid substance of the gland, already prepared, is displaced by the blood fluid, and enters into a combination with it, passing out in minute quantities to collect in the little gland tubes through which the secretion runs. There always reside in active gland textures, intercellular or cellular substance, ready to pass away by the entrance of blood fluid passing through, which aids their exit by its fluid quality; cell contents or intercellular substance, in a state of diffluence, thus enter into a common flow, or unite with the blood fluid brought by transudation into exact contact with them, and these together constitute the characters of the secretion. This process of dissolution of its soft-solid texture or intertexture is continually taking place within the limits of gland texture, and does not commence and end with the period when the secretion flows, for this only marks the period when the fluid essential to diminish the consistency and viscidity of the matters of the gland itself, passing and passed into a state of dissolution, are permeated by the fluid of the blood, which brings the various particles not before in contact into a continuous flow. It unites those particles already in a state of molecular disintegration, or physiological dissociation and decomposition, and combines with them to give them the requisite fluidity, as a whole, to pass freely out from the innumerable points of their previous status. This dissolution of soft-solid or similar elements of the gland texture is regularly taking place in the gland, analogously to the disintegration or wear taking place in textures not having a specially glandular formation, which particles in the latter case are taken up by and carried into the lymph canals by the fluid issuing from the blood in non-glandular parts of the body, both to serve this purpose and also to bathe the textures with pabulum beside. Thus, for example, the gland texture of the pancreas yields a very viscid substance, replete with certain saline and earthy elements, called the pancreatic juice. This is the only secretion in the body which will reduce the fatty matters of the food it mingles with, to such a state of mist-like, molecular subdivision that it is fitted to pass through the texture of the intestinal cellular surface, where it is absorbed. But if, after a due amount of this secretion is poured out, we continue to excite the gland by a galvanic current, it continues to emit a very watery fluid like the saliva. The experiment demonstrates that the amount of organic substance has formed in the gland by the process of dissolution among certain parts of its elements, and when this is fully poured

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out, it is exhausted of its distinctive gland material or product, and though we may by galvanism cause the fluid part of the blood to pass into and out of it, the proper substance is not obtained, however great the amount of fluid, until the process of elaboration or dissolution within the gland has taken place. Thus, to return to the biliary secretion, its active or changing cellular or intercellular elements are constantly changing from a soft-solid state to one of the consistency of white of an egg. This involves disintegration of those bodies as well as dissolution, and on receiving the watery constituents of the blood which transude from the liver plexus of capillaries and completely bathes them, it passes off with the character and properties of bile. Passing through the numerous biliary ducts, it collects in the common duct in which they unite, and gathers into the gall bladder, to remain until the time of digestion, when it flows forth into the intestine to take part in the transformation of the starchy and fatty matters of the food.

Secretions are not therefore substances formed in the blood, but formed by a process in which the presence of the blood fluid and its watery consistency takes part, particularly in transmitting [illegible] ic animal material of secretion away from the gland into some receiving cavity.

The secretion called the gastric juice does not exist in the bloodvessels, nor does it consist of any fluid from the blood which in itself has changed into gastric juice. The gastric juice, its distinctive substance, is an animal fluid, preformed in the stomach glandular texture by a process taking place by and within the limits of that texture. This unites with the transuding fluid from the bloodvessels, as it permeates everywhere through the points of its formation, and, entering into the stomach cavity, runs down there in considerable quantity. What constitutes the gastric secretion, therefore, is not a certain quantity of fluid which, being of one character in bloodvessels, in the act of passing through their walls and the stomach changes to another character of itself, but it is a certain animal substance, developed in the stomach glandular texture, which is displaced by the fluid from the blood which enters, and coming into contact with it at every point of its formation, combines with it as a menstrum and enables the two to pour forth. It is an animal fluidified substance, *plus* the gastric substance or pepsin—the organic ingredient of the gastric juice.

So, in all other cases, the peculiar and active properties of secretions are always some fluidified or dissolved substance which has been a part of organized tissue or texture, either as cell contents or intercellular substance. This needs the transuding fluid from the bloodvessels, because it can not come forth in a collective form without a sufficient addition to its mass of watery or serous fluid to act as a menstrum and this latter is furnished by the fluid portion of the blood.

The "power" of the gastric juice is attributed by chemists to its acid property in itself, but this acid property is not what constitutes its digestive power at all. What does so is the organic character of the pepsin. What the gastric juice does to the appropriate class of food—namely, organized albumenized and nitrogenous textures, is not a process of solution, strictly speaking. To the extent that it permeates these foods, generally soft solid, and much further softened and disintegrated by cooking, it separates the organic solid particles, which have kept the (in itself) semi-fluid food constituents from coming in contact before digestion, and enables them to unite, fuse, or run together a common fluid mass, which is the state for their absorption. This is the only portion of the food which is digested and absorbed, the still solid particles pass through the intestine and out as refuse matter. Even the solid particles of the bile, its coloring matter, the whole of all its other constituents being absorbed, is not absorbed, but passes out in this way. The digestive power of the "gastric" juice does not turn upon its acid property, but upon an organic substance of acid reaction.

But we must here recall what has been so repeatedly said—that the transudation of fluids of the blood is not an occasional, but a regular or constant phenomena, only it takes place in greater volume occasionally, as during the period of the pouring out of the secretions. The loss of the gland texture of animal substance, by using it in a secretive production, is undoubtedly supplied by the blood elements regularly supplied to the gland, serving as pabulum for the renewed growth and renovation of its soft-solid elements, from changes by which the organic ingredients of secretion are formed. This fluid portion of the blood may also, being present, be diffused through the gland elements, and take part in promoting the changes of these elements into the fluidified state of the secretion. But we must understand that the greater volume of fluid which the blood occasionally transudes into the gland, at the times when it is pouring out its product, does not constitute a-

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ther the secretion nor the act of producing it, but is only increased that this secretion may be drifted out.

Analagous to this, likewise, in the process of growth and multiplication during life of the elements of tissue, the fluid or pabulum of the blood undergoes conversion into the cell-like elements, which affects the character of the product of the cell subsequently. In one case the portion of the cell which undergoes conversion in the liver results in amyloid and biliary matters, and but little fat; yet in others, as in the first, it may be nearly all fat which results.

One of the most striking and instructive points demonstrated in the formation of matters in these glandular structures, was the discovery that matters nearly allied to starch and cellulose were formed in them, as well as in the plants.

In 1854 Virchow discovered an amyloid (starchy) substance in the human subject. This was found in the form of roundish bodies in the deep layers of the central ventricles, and in the lining membrane of the canal of the spinal cord. Since that time this starchy matter has been found in many other situations. It is found in considerable quantity in the liver, and has led to the conclusion that sugar (glycogene) is formed in the liver in considerable quantity in health. In certain cases of disease a substance containing amyloid matter accumulates to an enormous extent in the lobules of the liver, especially in their central part, thus giving rise to the amyloid or waxy degeneration. This amyloid substance is one of several compounds into which the "formed" material of the liver is resolved. In health it is carried away in a soluble form, and probably is soon converted into other compounds which are resolved into carbonic acid. In diabetes it is converted into sugar, and in certain scrofulous cases it accumulates in the liver and other tissues of the body. The so-called amyloid bodies in the brain and other parts of the nervous system, and in the coats of arteries, are actually composed of starch. It is certain, then, that starchy matter may be deposited in the body, around granules, layer after layer, until a mass of considerable size is produced, or a material similar to starch may be so produced.

Undoubtedly, therefore, matters in a flowing state in the bloodvessels do take part in the process of secretion, and become in part the product of the process; but we must remember that the peculiar quality of the whole secretion, irrespective of analysis, consists in some organic principle, which, when separated by itself and condensed, constitutes but a very small fraction of the whole secretion, and yet, being equal in every drop of the secretion, confers upon it the property of effecting changes in other substances. This principle is "ptyaline" in the saliva, "pepsin" in the gastric juice, "pancreatine" in the pancreatic juice, etc. etc. This organic substance in all secretions appears to be a substance which has been once actually organized or builded into the tissue elements, and which is capable of converting other substances into a state for absorption from the intestine.

But there are certain of the secretions—as, for instance, milk, mucus, etc.—which consist of elements or substances that, before being secreted, have never passed into the form of structure—never been organized into tissue. These, however, have none of the digestive or transforming powers of the secretions proper. Milk is a substance which, secreted from the mammary gland, serves no purpose *in* the economy, but only *out* of it—being poured out of it—and if not used as fluid support for the child, would leave the system as urine does.

Chemical analysis leads us a very little way toward the understanding of the converting property of these various secretions, because their peculiar properties partly vanish or are inoperative in the very act of analysis. The function of a gland organ, we say, is the preparation within its tissues of a product capable of changing fresh substances entering the body into a state of physiological accord with substances already there. In all glands there is a more or less peculiar arrangement of the capillary vessels peculiar to that part. They may be variously folded on each other, or otherwise peculiarly arranged, so as to give the greatest amount of channel space within the smallest area, and thus permit the largest volume of blood to enter them. During the renewal of the process of digestion, which is a process exciting to the whole system, a large volume of blood, either in its most slowly flowing condition, reaches the capillary channeling of the gland, or a larger amount (in a given time) passes into and through this channeling, the rate of flow being high. Mechanically, the effect of this is to bring so much of the gland substance as may be in the closest surrounding contact with the swollen capillaries into a turgid state, and tends to release whatever particles of its organic material that are ready to pass away together in the drift of the transuding fluids of the blood. This periodical flushing of the capillary portion of the gland structure, wherein much slow flowing blood is in it, involving a comparative accumu-

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lation of red corpuscles, is one of the probably important conditions of the secretive period, for the larger proportion of globules will deliver their oxygen to a much smaller portion of the associate plasma here, furnishing thus to the tissues a transudation of plasma richer in oxygen than in other parts of the economy. This oxygen may directly aid in reduction to a state fit for the removal of the organic matter of the gland tissue, in process of conversion, into its essential state—the organic principle of the secretions. The secretions are all highly oxidized compounds.

In reality, therefore, although our knowledge of the production of secretions is not yet as perfect as is possible, we undoubtedly closely approximate to a correct understanding of it. We see, then, that all these processes exact, as one of the conditions of their taking place, a due proportion in the tissues of flowing substance, far the greater part of which must be in the bloodvessels. Without this the secretions must be deficient in both amount and character of substance.

Beside the distinctive digestive substances, there is always contained in the secretions a certain amount of inert, effete matter, principally the desquamative or "shed" form of the cell-like elements of structure, as epithelium, etc., mingled with the secretions. This is so of the products of the salivary and other glands, and of all surfaces of cavities into which secretions are poured for use, as in the whole extent of surface of the alimentary canal, from the mouth downward. This shows that new tissue elements, the same as the effete ones originally were, are constantly grown or reproduced, to become the same eventually as the effete ones are, and to be lost to the system. The epithelium of the skin is everywhere desquamated in this way. The most external layers—as new broods of cells, are reproduced beneath, surrounding and in contact with the blood channels, from which they receive pabulum—are displaced constantly externally, become hard and dry, and scale off. Effete elements of tissue, under their own final and inert form, are thus continually lost from the surface, demanding new collections of others of like character to supply the loss.

This process of growth, even when the structures are in their completed form, takes place in every part of the system. Future elements must either be reproduced in this way, or in those structures as nerve and other fibers, where they are completed once for all; they must undergo alteration into a degenerated form, retaining in the altered form only a very low grade of their first properties.

Upon this property of multiplication of elements of tissue, at any age of the organism, depends the phenomena of morbid growth or tumors. This may arise in any tissue in the body, but in none of them have we any difficulty in ascertaining that the growth is but an extension, in a certain area, of a physiological process; hence, although it would not be possible to distinguish a single "unit" of organization, in such extraneous growths, from any other removed from certain healthy structures, yet the striking irregularity of the "morbid" tissue the absence of that orderly arrangement exhibited by all healthy textures, and the great extent of tissue exhibiting precisely the same character, are features which mark the internal character of the tumor. If the growing elementary parts of a tissue multiply beyond certain limits assigned to them in the normal state, a growth is produced which may only differ from the healthy tissue with respect to its bulk, or with reference to the abnormal position it may occupy or to which it may spread, and in the relation it bears to other textures.

Adipose or fatty tissue, fibrous tissue, cartilaginous and bony tissue, often form tumors of considerable size in direct continuity with the normal structure—one being the extension of the other. These morbid structures may ultimately be found growing in connection with healthy tissue, with which they have no character in common. A bone germ, detached from a soft, rapidly-growing bony tumor, may recommence the growth of the disunited part, even in the lungs, and thus several hard, solid, separate masses of bony structure may attain considerable size in different parts of the lungs. In all these cases the vessels grow with the other elements of the tissue, and thus reproduce in these pabulum-holding channels the conditions for an unlimited increase, without order, in an irregular manner.

It was, until recently, supposed that these morbid or new growths arose from a peculiar juice or fluidified substance infiltrated into the tissues from the bloodvessels, and that the elements of structure took their genesis, *de novo*, in this supposed morbid "blastema," and that therefore they had nothing in common with the physiology of the body; but in reality they are built up by the growth of units of organization which physiologically composed the part of structure where they arose, and by the descendants or progeny of those parent units. The process of growth in those morbid tumors is

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morbid because it is extended beyond physiological limits, and not in the character of the substances of which it may be composed. From this discovery has arisen great rectification of our previous views of the mode of formation or building up of the morbid tissues of tumors.*

It is in those structures in which the elementary parts grow fastest, and pass most rapidly through the various stages of their existence, as would be supposed, arise the most terrible and formidable of morbid growths. An irregular growth of a part of the secreting structure—with the vessels, for instance, of the liver, kidneys, mammæ, or sweat glands, etc.—may lead to the formation of a growth of the same elements as the healthy structure of a very large size. In many such growths we can easily distinguish the elementary "units" which have descended from those which had taken part in secretion, although they have become so modified.

The unitary elements of many healthy structures may be removed from the parts of the body where they have been developed to a distant part, and will grow there. Skin, hair, and teeth have been successfully transplanted. The periosteum, or surrounding membrane of bone, has been planted in a distant part of the body, and bony tissue has been produced. It contained bone germs or "units" which underwent development into bone. In some of these fast-pouring, soft, and spongy morbid growths a few of the units of organization, from their structure, may be carried away to a distant part of the body, and so powerful is their tendency to animate any form of nutrient matter in the organism, that it will grow into a more or less morbid structure whenever it may chance to have become stationary. And a little of this may be detached and carried away through the lymph vessels to a new part and there commence again growing.

[TO BE CONTINUED.]

*See the author's papers on these subjects in The American Medical Times, 1863-64.

AN Athenian who wanted eloquence, but was very brave, when another had, in a long and brilliant speech, promised great affairs, got up and said, "Men of Athens, all that he has said, I will do."

A POET intended to say, "See the pale martyr in a sheet of fire," instead of which the printer made him say, "See the pale martyr with his shirt on fire."

Revelations of a Retired Physician.

BY THEODORE THORNTON, M. D.

VII.

"THE SECRET OF THE THESIS."

ONE evening, while my chum, the Virginian referred to in my last revelation, and myself were deeply engaged in a game of chess—it was at the commencement of our second course—a knock was heard at our door, and the person who gave it was invited in. He proved to be a friend.

"I have come, my friends," said he earnestly, as we rested from our half-finished game, to listen to him, "with a concern which impels me to give you a piece of my mind, at which I trust you will take no offense!"

"Certainly not," we both added, as if with one breath, and our visitor proceeded, saying:

"You know I have several times already more than hinted to you the propriety of your doing what both of you have neglected, or rather refused, to do so far. It is the taking of the office ticket of one of the more influential Professors, as no doubt you anticipate, gentlemen."

"There you come again, John, with your everlasting humbug system of imposture—those private tickets!" responded my room-mate.

"Not so fast, Charley," said I. "John's a good fellow and a true friend to both of us. Hear him out!" And, turning to our visitor, I bade him go on. He did so.

"Thank you, Theodore!" he resumed; "I was about to call your attention to a significant fact or two. I have been posting myself as to the statistics of the successful and unsuccessful candidates in this college for the last eight or ten years, with the aid of others, including two old graduates now practicing in this city and in the habit of keeping the run of their Alma Mater, and I find that, with scarcely an exception, those students who have taken the private ticket of either Prof. —— or Prof. —— have not been rejected, while of such as failed to do so a number have been rejected!"

"Then you mean to charge, do you, John, that students are not graduated here on their merits?" inquired Charley.

"I do state precisely that."

"Then we are to infer that the Professors are a pack of scoundrels, are we?"

"Not at all. I don't even think so, and therefore I couldn't truthfully say so. Men often do worse than they mean."

"How can that be made out? Explain yourself, my friend!" interposed my chum, again.

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"I will," was the reply, "if you'll be patient, Charley."

"Go on, John," said I.

"It is not necessary to charge the Professors with designed injustice to any one," he resumed. "What has happened was the inevitable result of the circumstances—of the law of forces, if you please. Not only are we office students advantaged by the private libraries and lectures of our preceptors; but, what is more important to the question of whether we are to be rejected in disgrace or passed in honor—whether deserved or undeserved honor is not the question—we are drilled into the art of answering questions. Furthermore, we become familiarized with at least the manner and temper of one Professor, while he becomes a friend at court!"

"There, you're coming to the true secret of the business now!" chimed in my room-mate; but our friend went on to say, as if too much impelled by his deep concern for our welfare to be disturbed, "Don't you see that if the student has any noticeable weakness in the upper story, any weak spot anywhere, that that friend at court, if the unfortunate one is deferential to him while showing an anxiety to comprehend what is taught, his preceptor will become interested in him and plead his cause all the more earnestly and perseveringly in the Board of Examiners, should he be in danger of rejection. Then, don't you see, that the desire of more or less of the Professors, who chance to have private students undergoing examination, to make interest for their lame ducks—to get a return of the favor, if you please—will come to his aid?"

"Of course, I see it!" said my chum, with a sneering laugh, "and what is that but 'log rolling,' as it is called in Congress, where the most swindling private jobs are put through by that vile people robbing-process, every winter?"

"Call it what you please, I am stating facts, and I am doing so for your benefit—facts that you'll find worse than stubborn things, if you don't cease to be stubborn fellows, and heed them, both of you, and take a private ticket!"

My sense of independence—but, more, my utter contempt for every thing like the "tickle me and I'll tickle you," or kissing by favor rule, implied by the phrase "log rolling," forced me to enter my protest against the very thought of the merest idiots being drilled before hand, and then, even after failing in their "polly wants a cracker" answers, while men of sense have been rejected! And I did so, but I will leave the reader to guess what I said.

In answer to what I did say, our admonitory friend replied:

"I appreciate your indignation, Theodore; but discretion is said to be the better part of valor. I admire your independent spirit and pluck. But I want you to look at things as they are, and accept the situation when you have not the power to alter it. There was H. A. B. who was rejected at the last Examination. I warned him, poor fellow, when I heard him talking just as you are talking now, but with no avail. I may not be more successful with you than I was with him, gentlemen (showing by his manner and tone some impatience born of disappointment), but I have discharged my duty while I have relieved my mind, and I will leave you to your sober second thought. Good night!"

So soon as our friend was gone, my room-mate looked more concerned than I had ever known him to be, and, after a few minutes silence, said:

"Thornton, there is a good deal of truth in what our friend has said! May-be, after all, we'd better take Prof. ——'s ticket as he has done. I should hate, amazingly, to be rejected, while I saw the merest jack-a-napes passing muster, as they say in my State!"

"You may get frightened, if you will, and show the white feather! I have taken my stand against the whole system we've heard explained to us. If that can't get my sheepskin without submitting to any such a humiliating imposture, I'll go without it. There is no law in this State any more than in Virginia, I thank my stars, against practicing without a diploma. I've practiced, already, with some success, across the river in our good old State, and I can resume there, if necessary. What will hinder you from putting up a shingle somewhere in this State, or in the West, where there is no law against it, and where you'll not be known to have been rejected?"

"Nothing, I suppose, but my own feelings," was the reply.

"But, Theodore, you've the advantage of me in the way you have just reminded me of. You've been in practice. I have not. You will be at home with what is deemed the most important chair—that of Practice—which presents the test, I understand. Beside, you've more self-possession, or 'cheek,' as the boys call it, if you will allow me to say so, and more tact than I have. Hence, you may stand out safely and go through the ordeal. I begin to distrust myself. I think I shall have to take John's advice."

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"Please be done with your flattery, Charley," said I. "It becomes not friendship such as I believe yours to be for me. If you mean to be laughed at for showing the white feather and falling into line with the supheads, while forsaking me, why do it, that's all, and I'll have no more to say on the subject, whatever I may continue to think of it and your course."

The challenge implied in the words "forsaking me" was more than my friend could stand, and he did not take the private ticket, after all.

I felt a sense of triumph, not unnatural, perhaps, but that I suffered for it, in the end, and right grievously, from a revulsion of feeling over the consequences to my *protege*—for such he really became—the sequel will show in due time.

As customary in medical colleges generally, each student, as a preliminary to the final examination, and as one of the tests of his qualifications—ostensibly for no other purpose—is required to present a written essay on some topic suggested by the curriculum of his studies, known as the thesis. Assuming that it is the desire and purpose of every college faculty to have as few rejections of candidates for the doctorate as possible (short of an undeviating unanimity, which might imply want of rigidness as well as of a sufficiently high standard of scientific requirements, you see!) which is the natural dictate of selfishness, in view of graduation fees and the necessity of rendering their institution attractive rather than a terror to students—assuming this, I say, this thesis becomes a great convenience to the Professors, when they take their places in the "greenroom" in the capacity of final examiners. If they feel partial toward the candidate, and think—from their knowledge of him as a private student, or from what they may have gathered of him from some other professor to whom he holds that relation—that he has selected a theme from a department of study with which he is most familiar (as most students, but not all, as we shall have occasion to state hereafter, are wont to do) they examine wholly, or mainly, on points directly embraced in his essay, or at least relating to or suggested by it. In this way he will either have to be very much wanting in tact, not to say stupid, or else become greatly abashed and confused in his thought, to make a total failure.

If the candidate has taken and paid for the private as well as the public ticket of the Professor of a leading branch, such as Anatomy, Practice, or Surgery, his "friend at court," supposing he has not advised with his special teacher as to a suitable theme for the thesis, and so taking the wrong one—which is supposing something not likely to occur often—then his caretaker, on discovering the mistake, would examine him on some more favorable topic, and take care to advise the other Professors, in a quiet and indirect way, of the situation of affairs, and so favor him not only with his vote, but also with a special plea, if necessary to save his own student from disgrace and himself from discredit.

Now, let us suppose that some student, who has not secured this friend at court in the way described, has been indiscreet enough—in his ignorance of this primary use, not to say the secret purpose of the college thesis—to use some textbook or ready-writing fellow student, in a rather plagiarizing way, and so present a thesis the furthest conceivable from a fair index to the drift of his own knowledge. What might be expected to happen with the fairest, and kindliest, and most impartial (?) examiners imaginable? Why this: that he would be questioned on a topic whereon he was well nigh a blank, instead of some one with which he was familiar.

This was precisely the case of my poor unfortunate and not at all deficient chum. He became confused, showed to disadvantage, and was cruelly rejected, to his greatest conceivable mortification, and to my most profound regret and sorrow; for I had not only influenced him against accepting the shield of the private ticket arrangement, but had virtually written his thesis as well as my own, in mistaken kindness because in ignorance of the "secret service" which that appliance was capable of rendering, at that time, as I remained until it was too late to remedy my friend's *faux pas*, or even to let him into the secret of the college thesis, because my examination—whereby I was made aware of it—came after his own.

In a future chapter we shall see how a most imprudent, not to say impudent, exhibition to one of the Professors of my sympathy-born indignation at my friend's fate damaged my own case before the same so, generally, dreaded green-room ordeal.

A PAINTER'S REPLY.—A painter who was fond of hearing his work praised, was one day told that Judge —— did not think very favorably of a performance of his. "Oh," said the artist to his informant, "what is his opinion good for? He isn't a judge of painting, he's a *Judge of Probate*."

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Shaker Poetry.

To the Editor of the Herald of Health:

Once a year the Young Believer Families at Mount Lebanon (of which there are three) have a social gathering in a beautiful pine grove, on their own domain, situated on the borders of a lake. The day is spent in conversation, singing, and reading such pieces (in prose and poetry) as the brethren and sisters may have written, upon various topics, for the occasion.

Quite recently the families met, and the subjoined is a specimen piece by one of the sisters.

F. W. EVANS.

Lebanon, *August*, 1867.

SHEW BREAD;

OR,

UNLEAVENED BREAD OF UNBOLTED FLOUR.

Unleavened bread! Oh, come and sing
The praises of that simple thing!
'T is only wator (pure) and wheat,
United by a proper heat.
If that is all, what can be said
About our brown unleavened bread?
'T is food for poet-prophet's dream,
Or for a theologian's theme;
And he who would improve the race,
May build his plans upon its base.

The poet-prophet shall be fed
By medium of unleavened bread;
His soul shall speed through space and time
Unto that distant, ancient clime,
Where, 'neath the Oriental skies,
Old Egypt's wealth and glories rise,
And there by inspiration know
The bitterness of Jewish woe.

Again, the wonders shall be wrought—
The plagues with all their horrors brought;
The darkness fearful to the sight,
And Hebrew dwellings filled with light;
The startling cry of grief and dread
O'er Egypt's first-born children dead;
The grandeur and the awful night
That heralded the hour of flight!

What *are* these Hebrews? Noble? strong?
Aspiring to be free from wrong?
Hating their bondage and disease?
And seeking God alone to please?
Ah, nay! Their bonds degrade their souls,
And lust their ev'ry thought controls.
'T is not for these poor murm'ring slaves,
For whom the wilderness hath graves,
That God begins his perfect plan
To liberate the race of man.

How strange! The first commandment gives
The Lord *forbids the use of leaven.*
And here is seen the compromise
Wherein the Lord of hosts was wise:
No fruit nor honey could be found,
For hail and locusts spoiled the ground.
So, to content these slaves to eat
Unleavened bread, he order'd *meat;*
To shadow forth the pow'r that curbs,
They had the meat with bitter herbs.

'Twas thus he hid within the Law
A spirit which they never saw—
A spirit that they could not see,
Until they found celibacy.
Nor have the ages yet revealed
The glory in the Law concealed.
But trace the Jewish hist'ry down,
From Moses's rod to Jesu's crown;
Each great event through which you 're led
Is coupled with *unleavened bread.*
Unleavened bread was but the sign
Of *truth*, permitted then to shine.
Though closely veiled and disguised,
Her simple form is recognized;
And God prepared for her a place
Where souls could meet her face to face.
Her fire burns bright on Zion's mount;
Her healing is in Zion's fount.
From Zion shall her word go forth
To bless the nations of the earth.

We'll leave the prophet, at this view,
To teach the *clergy* something new.

In our historic bread they 'll see
A precious, useful trinity—
A triune pow'r that may atone
For all the ills to *stomach* known.
In this trinity connection
We 'll show them, too, the resurrection—
The body resurrected high,
Not "in the twinkling of an eye,"
But in that good, substantial way
By which we rise from day to day;
By which we gain a *little* health,
And *all* our pure and heav'nly wealth;
By which the judgment day is brought
That opens all the graves of thought,
That separates the sheep from goats,
And pulls out *beams* as well as motes.

We 'll take them from their mystic mesh
Of Christ appearing in the flesh,
And teach them that the second birth
Endures new heavens and new earth;
That *fabrication* for the *soul*,
And *drugs* to make the *body* whole,

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Will render bad conditions worse,
And constitute a lasting curse,
That, if the cross of Christ we bear,
Our appetites must take their share;
That ev'ry worldly, wrong desire
Must be consumed by Gospel fire;
Then show them our communion sweet,
Where *all* one blessed fare do eat;
Thus bring to mind what Jesus said,
When last he broke unleavened bread.
Then they 'll own, with pomp diminished,
Their *great mysteries* are finished.

We 'll give the *social pioneer*,
If ever such should venture here,
The knowledge how to make a *staff*—
(Why, brethren, have you cause to laugh?)—
A staff to help him in his strife,
And aid him on the roads of life;
To wake him from his idle dreams
And all his visionary schemes;
To knock—yea, knock, upon his head,
Until he *sees* unleavened bread;
This brings his problems to a stand—
For, *to have bread, he must have land!*

But now we 'll turn, with earnest mood,
Back to the theme we first pursued,
Through time and changes long and great,
Until we stood at Zion's gate.

Unleavened bread hath nearer claims
Than any that the Scripture names;
Associations close and dear
With ev'ry season of the year,
With ev'ry member of the band
That dwells on God's own chosen land.

Oh, gently doth my spirit come
To find its rest, its love, its home!
To eat the blessed bread of heav'n
Unmixed with any earthly leav'n!
To find the springs that know *no strife*,
But well up to *eternal life!*

A NARROW ESCAPE.—When Oliver Cromwell was an infant, it is said he was snatched from his cradle by a monkey that rushed with his burden to the roof of the house, much to the alarm of lookers on. The monkey, however, brought him back again none the worse for his airing. The thing is regarded as a marvelous escape, but most babies have to go through more dangerous periods than this by being subjected to all sorts of food and physic, and they do not, like Cromwell, get back to their cradles without more or less injury.

The Administration of Wealth.

BY REV. HENRY WARD BEECHER.

WEALTH is one of the most important powers that is committed to the hand of man. To undervalue it is just as absurd as to undervalue intelligence or artistic gifts. It is a power for good when rightly employed. It is a power for harm when wrongly employed. The way to divest it of harmfulness is to secure it for usefulness. The positive is always a cure for the negative. And to teach that the money talent is immoral or mean, or nearly allied to immorality or meanness, is the very way to make it so. It is far better, and far wiser, to advocate such a right use of wealth as shall justify noble young men in the pursuit of it, in the acquisition of it, in the administration of it. Boundless wealth is open before us. In no other land, I think, are there such original elements to be worked up, such productive forces at work, such legitimate fortunes to be made, and so many of them. We are entering upon an era of wealth. Hitherto, wealth has been in some sense a class attribute. There have been so few intelligent people, compared with the great mass of the population, in uneducated communities, that property has hardly had a fair chance; and never before have so many million men been set to work upon a continent of boundless material resources—men who are intelligent, who have passed through the schools, and who have been exercised in a community which stimulates men's senses and powers. Never before was there the spectacle of such a population developing wealth at such a rate. The wealth developing power of our common people surpasses that of any other people on the globe. See how already our gigantic billion debt is melting down like snow in April. That which other nations honestly thought would crush us, has scarcely ruffled a feather. Their mistake was in this. It was natural and excusable. They had no knowledge, as we had not, of what were the resources of an intelligent common people, stimulated to exertion, to the production of wealth, and to the accumulation of it.

Now, in such a nation, and at such a time as this, young men need a great many kinds of instruction on a great many subjects; but on no subject, I think, more than on that of the administration of wealth.

You need not be ashamed to be rich—though perhaps I do not need to dissuade you from shame on that score! You need not be ashamed to be thought to be seeking riches. Even if

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you are a Christian, and you have but just presented yourself among the brethren to take on the vows of Christ's household, and your lips are still wet with the sacrificial wine, and the bread of faith is still in your mouth, you need not be ashamed to say, "I am bound to serve my Lord and Master through money."

Let me, then, speak of the uses of wealth.

The lowest use of it is that of the miser—the use of simple hoarding. I do not dissuade you from that, because men never fall into it except by disease. Miserism is monomania. If I were a miser, I would be a man fit for an insane retreat, like any other person who had lost the use of his mind.

Next, is the use of money for mere animal enjoyment. Where a man brings from far and near those pleasures that report themselves in the senses, where a man employs his wealth simply as a means of luxury, he is employing it to make himself still more an animal than nature made him. I need not pause to hold up such persons to appropriate condemnation.

Next, wealth may be employed for mere vanity—a step higher than that which was last mentioned. That was selfishness of the flesh. This is selfishness of the mind. All uses of wealth which have for their object merely the magnification of one's own name, the ostentation of wealth, all uses of wealth which make it merely praise the man that owns it, are very bad and foolish. A man may be vain, while he is benevolent. Vanity and benevolence may come together. We never act from single motives; always from complex. A man may really have a conscience toward God and man in the administration of wealth, and at the same time there may be a superficial vanity that goes with it. A man ought not to be condemned as simply vain because there is a streak of vanity in his good qualities. But where men use wealth for praising themselves, and for that only, they may be said to squander it, and I need not say how guilty they are.

Wealth may also be used for the purpose of breeding wealth. Men make money with apparently no other idea before them than its accumulation. I can understand how a man might have great pleasure in the campaigning for wealth, in the laying out a plan, selecting instruments, supervising them, and doing it against competition. Enterprise, activity, thought, and victory are themselves intrinsic pleasures to an active-minded man, and are not unworthy of him. But all this is aside from that peculiar disposition which we see in some men, who begin gerously and liberally with wealth, but who, when they come to a point at which it seems to them that they may reach vast estates, change from naturally kind-hearted men to mere mongers of property, and think merely how to roll over and over the ever-accumulating ball. When they are worth a hundred thousand dollars, their thought is, "there! that is a good start for two hundred thousand." When they are worth a million, they say, "I am now in a situation in which I may be taking advantage of circumstances." When they are worth a million, they say, "This is a good basis on which to go forward and make myself worth twenty millions." And so it is boundless wealth that they are striving after. They become rich men beyond any personal use that they can make of their wealth. Why, I am as rich as they are. I have as much as I can use wisely and comfortably, and they have no more than that. All the surplusage which is in their possession they are simply agents of. It is to them very much what to me is the gold which I own in the mountains of California. I own it, and never see it, nor handle it. The same is the case with them. I do not appropriate my wealth; neither do they theirs. The mere saying that they can if they have a mind to, when they never have a mind to, does not make any difference. Many men in New York are only cashiers of their own fortunes. They only handle them remotely. They are beyond any real sense of ownership. I apprehend that when a man is worth a million of dollars, he has a shadowy sense of knowing what he is worth: but beyond that, I think figures fade out, and he has no sense of ownership, and simply a vague sense of being considered high up in figures. He has a sense of the popular impression respecting him as a rich man, but little or no sense of the augmentation and power and benefit of wealth. And where a man has before him only the thought of being worth more, and then more, how poor is his conception of manliness! And what a power he has in his hands that he does not understand! What would you think of swine rooting and grunting with diamonds in their noses? Was there ever any thing worse thrown away than those diamonds? And what do you think of men that have power to revolutionize the generation in which they live, and do not know it; that have power to underlie society, as it were, and lift it up; power to report themselves in every part of the globe; power to transmit their influence for thousands of years to come; and that hold these various powers with total unconsciousness, with no more idea of it than the swine has of the jewels in his nose!

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Let us now rise higher than these to more appropriate uses of wealth.

Among the appropriate uses of wealth, may be mentioned that of ennobling and dignifying the household; and among the methods of doing this, may be mentioned that of making it spacious and beautiful, even in its material aspects. When a man has by industry achieved wealth, I believe it is his prerogative, his privilege, not only, but his duty, to make his dwelling ample and noble. I am not a believer in poverty. I believe that poverty can be put to good uses, and that a man can be true and noble in poverty; but I do not consider that poverty is a condition of holiness. I believe the world has got to learn how to be holy with wealth, and influence, and power, and that we shall never see the noblest specimens of manhood till men are brought up, not in weakness and poverty, but in royalty that shall be more than a match for wealth, and subdue it to holy uses. One of the first steps toward this is to make more of the household. It is the fundamental, the initial element of civilization and prosperity. A man may be unwise in the way he develops the household; but there is no point of development that a man may more wisely work toward than this.

I believe in grounds, and in the decoration of them. I love to see a man that makes a paradise about his house, and fills his trees with singing birds. Taste should preside over the home. There should be a proportion in the administration of wealth between these things and other needs; but let no man feel that there is any intrinsic inconsistency between being benevolent or charitable, and spending money for personal adornments, or for beautifying one's mansion and grounds.

It is right to indulge in these things. I know there is a good deal of conscience on this subject. I know many persons are in the habit of urging the question, whether the moral effect on the community of living very plainly, and employing wealth for others, is not better than to employ it on the embellishments of one's person or home. But that does not state the question. A man can as well labor for and benefit the community in which he dwells when living in a royal mansion, as when living in a hovel. In order to live for others, it is not necessary to live in squalid misery. I hold that a Christian household is one of the most important forces in the community; and if with it goes wealth, it is all the more potent for good. And for such a household to live as though they were wealthy is not selfish. Though they act toward themselves, it is a kind of action which makes them more powerful as an ideal and as a provocative to other men. It is civilizing selfishness, if it is selfishness at all. For, where a good man lives more largely, he exhibits to a better advantage that individualism which springs out of true Christian civilization.

I not only would not dissuade you from a wise administration of wealth in the economy of home, but I would persuade you to it. It is an ambition not unworthy of a young man. Mark out, if you choose, in the future, a ground that at last shall be a picture that you yourself have made, not in colors, but in trees, and shrubs, and adornments that nature produces under your guiding hand. Mark out a mansion, with all conveniences, and beauty, and hospitableness. Imagine yourself and those about you in this temple of beauty and refinement. And, with these ideals before you, strive after them. I would not have you seek wealth clandestinely with a feeling that somehow or other it is wrong. It is right to seek it, and it is right to use it. It should be used, but it should be used with generosity and liberality, for the sake of doing good.

CHANGE OF PRACTICE.—Twenty-five years ago it was the practice of physicians to treat the diarrhea of typhoid fever by repeated doses of opiates and powerful astringents. This is to a certain extent the practice still, although it was never attended with satisfactory results. Dr. George Johnson, Physician to King's College Hospital, England, says it is his practice now to leave the diarrhea alone, and that since the abandonment of the opiate and astringent treatment, intestinal symptoms have been far less troublesome and far less distressing to his patients. This disease always gets on best where rest, fresh air, cleanliness, and a wise hygiene prevail.

"HAS N'T your horse got the heaves?" asked a customer. "Heaves, is it?" exclaimed the apparently astonished owner. "An' if he's any better for the 'caves, he has 'em; if not, the devil a bit has he!"

AN old miser, who was notorious for his self-denial, was one day asked why he was so thin. "I do not know," said the miser, "I have tried various means for getting fatter, but without success." "Have you ever tried victuals?" inquired the friend.

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The Deaf and Dumb.

No. IV.

[*Continued from the September Number.*]

BY HARVEY P. PEET, LL.D.,

PRINCIPAL OF THE NEW YORK INSTITUTION FOR THE INSTRUCTION OF THE DEAF AND DUMB.

METHODS OR SYSTEMS OF INSTRUCTION.

We referred in our introductory number to the great diversity of theory and practice among teachers of the deaf and dumb. The two main points on which teachers are divided are:

1. The advantages to be derived from teaching articulation.

2. The propriety of developing and improving the language of signs as the principal instrument of instruction.

According to the view taken by these two points, methods of instruction vary in many ways. They may be reduced, however, to the following principal types:

1. The older German school, which holds to the teaching of articulation in all cases, but makes great use of the language of signs for explaining words and developing the pupil's faculties.

2. The newer German school, which seeks to dispense with signs as much as possible, and *endeavors to make* articulation and reading on the lips the main *instruments* as well as *objects* of instruction.

3. The school of De l'Epee and his followers, who seek to make a definite sign for each word of the language in the order of the words, technically called *methodical signs*.

4. The later French and American school, which relies on the colloquial signs of the pupils and the natural language of pantomime for the teaching of words and phrases.

5. The method used by some teachers, who have but one or two pupils at a time, which discards the use of pantomime altogether, except a few simple signs at the outset, the first words taught being explained by pointing to objects and actions, and these words used to explain other words.

In many institutions the methods are of a mixed character. Some attempt to teach articulation to *all* the pupils, only as a necessary accomplishment, not as an instrument of subsequent instruction, as at London; others have a special class in articulation, as at Paris. And the methods of those that teach and of those that reject articulation vary and run into each other by many different shades. The five methods above designated are therefore to be taken only as general types. We will briefly describe each.

The older German method, as practiced and set forth by Mr. Reich of Leipsic, in Saxony the son-in-law and successor of Heinicke, and Mr. Jaeger of Gmund, in Wurtemburg, makes great use of the language of pantomime, especially in the first year or two, to awaken and develop the pupil's intelligence, and explain the first words and phrases taught. These two teachers, indeed, differ in the order in which they teach the difficulties of language. Mr. Reich and his followers, like Sicard and many other teachers who follow the French method, preferring to begin with long lists of names of objects, while Mr. Jaeger and his followers, like many of the later French, British, and American teachers, introduce the pupils as early as possible to the formation and use of simple sentences. Both Reich and Jaeger, however, agree in the early use of pantomimic exercises, by which the pupil's attention is directed to the form, qualities, uses, etc., of objects, and by which he is led to cultivate his memory of facts and incidents, thus providing in his own experience a base for the subsequent superstructure of knowledge. Like the eminent founder of the first German school, Heinicke, they hold that the pupil should have ideas before he is taught words. A certain portion of each day is also given to exercises in articulation and to writing. As the pupil advances in the knowledge of words and forms of construction, the teacher endeavors to give lessons orally—that is, by speaking to his class slowly and deliberately, aiding them by making signs, in some cases a sign for almost every word.*

The newer German, or, as it is styled by Dr. Day, the "New Prussian Method," of which one of the most able exponents is Mr. Moritz Hill of Weisenfels, is based on the theory that the deaf and dumb should be taught, *as much as possible*, in the same way in which children who hear learn to speak and to understand what is spoken. The ultra theorists of this school affect to reject the use of pantomime altogether; but the practical teachers, including Mr. Hill himself, admit that this instrument of communication can not be dispensed with, at least in the earlier years of the course. Still they labor to restrict the use of signs, and of

*This account of the different German methods is condensed from Dr. Day's very full and able Report on the German Schools, annexed to the Twenty-sixth Report of the New York Institution, 1845.

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course do not encourage the development and improvement of that language. As the pupils' organs of speech grow year by year more rigid with disuse, they favor the beginning of his education at an earlier age than would otherwise be expedient. Much time and labor are, during the first year or two, spent on the exercises in articulation, beginning necessarily, of course, with single letters and syllables of two letters, but introducing as soon as possible short words representing familiar objects. For such words no signs are ever made, it being the main object of the teacher to lead the pupils to connect the object or its picture directly with the motions of the lips, as children who hear do with the sound of the word. Experience shows, however, that, in the case of the deaf and dumb from birth, this effort to make articulated words the direct instrument of thought is, in most cases, futile. Those called semi-mutes—to wit, those who learned language through the ear, think as we do in spoken words. To those laboriously taught to articulate through the medium of the eye and touch, words can never be more than combinations of a very fleeting and indistinct visible or tangible alphabet, formed by motions of the lips, tongue, and larnyx. To attempt to lead them to think in these indistinct forms, when they have a much easier and more natural medium of thought in their pantomime, or rather in that *camera-obscura* like procession of objects and actions in which most deaf mutes think, is well compared by Dr. Day to an attempt to make water run up hill.

It is easy to understand that if the pupil is taught words no faster than he is able to articulate them, his progress must be slow. Mr. Hill and his followers have a peculiar method of introducing the difficulties of language by beginning with rude and broken expressions, or fragments of sentences; *e. g.:*

Three bench.
Two chair.
The table—large.
The slate—small.
The slate—cold.
The sponge—soft.
The sponge—wipe.
The book—read.
The ruler—strike.
The ruler—straight.
The india rubber—stretch.
The chair—four leg.
The table—wood.
The cover—over.
The floor—under.

Next, a variety of qualities is given for the same object, *e. g.:*

The chair—four leg.
The chair—a back.
The chair—wood.
The chair—sit.
Two chair.
The slate—angular.
The slate—a frame.
The slate—black.
The slate—write.
The slate—lie.

Beginning in this way, which is probably supposed to be an imitation of the first imperfect attempts of children to talk, these disjointed skeletons of sentences are gradually arranged and filled out. We here only remark that our own pupils learn without difficulty to understand and use simple but complete and correct sentences at a much earlier stage than that at which the German deaf mute would be laboring through such disjointed phrases as the above.

Passing on to those teachers who cling to the methodical signs of De l'Epee, we observe that this sect, once so flourishing, has nearly disappeared in Europe, and is kept alive in this country only by the zeal and able advocacy of Mr. John A. Jacobs of Kentucky. Mr. Jacobs holds that the deaf and dumb can not read without substituting, at least mentally, a sign for each word, as we read by substituting spoken words for the written words before us. But as the daily experience of every teacher proves that deaf mutes can commit to memory words and sentences for which they know no signs, and can learn to use them correctly by mere usage, we hold that this having a sign for every word is a mere matter of convenience, favoring the more rapid dictation of sentences and reading by signs, but not necessary to enable the deaf mute to understand written language.

The methods classed as the later French and American school differ from the last described mainly in considering methodical signs as at least unnecessary, while many teachers consider them a hinderance to the pupil's progress and a useless burden on the memory. In some of the schools where these signs were used formerly, if not now—in the early days of the New York Institution, for instance, and in the schools of De l'Epee and Sicard before the advent of Bebian, much of the instruction in the younger classes consisted in the mechanical repetition of methodical signs for words, the pupils giving the sign for the word, or the word in its proper case, tense, etc., for the sign, by mere rote,

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without attaching any ideas, or at most very erroneous and imperfect ones, to what he wrote.

To avoid this waste of labor and deception as to results, the later French and American school rely mainly on colloquial or natural signs for the explanation of words, phrases, and laws of construction, and endeavor to divide and graduate the difficulties of construction, so as to begin with such phrases and sentences as are most easily understood by deaf mutes, passing, on a principle of philosophical progress to such as are more complex. This principle, indeed, is in some degree common to all systems of deaf-mute instruction. But in its application by the French and American teachers, we avoid the broken and imperfect sentences just instanced as specimens of the new German method.

The last method to be described, as we have already stated, is practicable at all only in the case of one or two pupils, who have never learned to use signs, and who associate with no persons who would use signs as a readier means of communication than words. Under these conditions, a deaf mute of quick perceptions and active mind can be taught to use words under the forms of the manual alphabet and writing, as the direct original signs of ideas, not as a translation from a vernacular language of pantomime. The teacher, of course, like all teachers of the deaf and dumb, must begin with the names of familiar objects, qualities, and actions, which can be pointed out, and pass gradually from the simple to the complex forms of language. In process of time the words and phrases that were interpreted by pointing to the objects and the facts may be used to explain new words and phrases. It is a slow and laborious process, slow not so much in the acquisition of language as in the development of the faculties and the acquisition of knowledge; but it has the advantage that the pupil, having no other mode of communication than by words, becomes more familiar with words by more constant practice. But we repeat, as important to be borne in mind, that this method is practicable only in the case of an isolated pupil or two. Whenever several deaf-mutes are collected together they will have recourse to gestures, as a far more rapid and convenient mode of communication than writing, the manual alphabet, or articulation. And if the pupils thus acquire the habit of talking with each other by signs, the only benefit which this method offers as a com pnsation for its slowness—to wit, its becoming the habitual instrument of thought will be lost.

And it ought to be added that this method can fully succeed only with deaf mutes of rare quickness of perception and activity of mind. The visible forms of language in use, writing and the manual alphabet, are too complicated, too cumbrous, and require too much time for repeating words to become manageable as instruments of thought to an average deaf mute. Take, for instance, the manual alphabet, which is the most convenient mode of repeating words for a deaf mute, and the medium by which some noted deaf mutes educated in this method learned both to converse and to think. It repeats words letter by letter, whereas in speech we repeat them by syllables. Now there are on an average, in any connected discourse, three or four times as many letters as syllables. It follows that words are repeated by the manual alphabet with three or four times as many efforts as by speech, consequently demanding three times as much time, and giving three times as much fatigue in the repetition of a given sentence or discourse.* (In writing, be it observed, still more time is required, as each letter which in the manual alphabet is made by a single movement, in writing requires several strokes of the pen.) Hence it is that deaf mutes of inferior or even average mental power find words a load to carry, whether in conversation or in their private meditations—not like speech, a free-flowing current that bears up and helps along the processes of thought and reasoning. While the more vigorous and active minds may bear up under this load, the greater number will be embarrassed, retarded, if not permanently crippled, in attempting to carry a weight too great for them.

ARTICULATION AND LABIAL READING.

Accounts are often put forth of the marvelous success of European teachers of articulation. There is an inherent love of the marvelous in the human mind, and most men are ready to believe what it is pleasant to believe. Travelers visit one of those articulating schools; a pupil or two are called up who became deaf at the age of eight or ten, perhaps. He speaks quite distinctly, and seems to understand all that is said to him (some often repeated phrases, probably) from the motions of his teacher's lips. The traveler never thinks of testing, indeed does not know how to test, the extent of the pupil's ability to speak and read on the lips, or of ascertaining whether the rest of the school could speak as well; but forthwith, in a fit of enthusiasm, writes to friends at home that in Germany, or in Paris, as the case may be, the

* Syllabic manual alphabets have been proposed, but so far as we know, none are actually in use.

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deaf and dumb from birth are taught to speak in all cases like other men, so that in those places it is almost absurd to talk of the dumb, and the faculty of hearing is nearly supplied by the eye, in reading on the lips. We quote some of the expressions used more than twenty years ago by that eminent friend of education, the late Hon. Horace Mann. Similarly wild and exaggerated statements appear in print from time to time.

To test the accuracy of these reports, the American institutions have several times sent competent and careful observers to Europe to examine the schools for the deaf and dumb, and especially those in which articulation is taught. Of these, the Rev. George E. Day, formerly a teacher in the New York Institution, now an eminent professor in Yale College, has made at two different periods—1844 and 1859—the most careful and comprehensive examination of the European articulating schools, especially those of Germany, and we cite his testimony, confirmed as it is by that of all other visitors to those schools *competent* to make such an examination, as entirely reliable.*

Dr. Day states that "a very general impression seems to prevail among intelligent Germans that the articulation of the deaf and dumb is unintelligible." The teachers were frequently obliged to translate what their pupils said. Visitors could usually make out more or less *single* words, but could very seldom make out a sentence, unless they had previously some idea of what the deaf mute was going to say. In the most advanced class of one of the German schools, which had been four years under instruction, the scholars read by turns, at Dr. Day's request, a verse from the fourth chapter of John. Out of eight scholars three did not utter a single word intelligibly, two others uttered but one or two words so as to be understood, while of the other three, from four to six words only could be understood. "On the whole," adds Dr. Day, "it may safely be said that the utterances of the pupils (of the German schools) is so indistinct and unnatural as to convey only single words to the hearer. The greater part of the sounds they make in attempting to speak it is altogether impossible to understand." †

At Dr. Day's visit, in 1859, to an articulating school at Rotterdam, in Holland, a very bright girl, put forward as their best pupil, seven years or more under instruction, was requested to read a simple sentence, and totally failed, after several repetitions of the first few words, to make one of her own countrymen, an intelligent man, understand a word of it. "One such experiment," Dr. Day well observes, "is worth a score of assertions and random affirmations respecting the ability of deaf mutes instructed in mechanical articulation and reading on the lips to mingle in the general intercourse of society." *

Beside being unintelligible to those not accustomed to it (and often hardly intelligible to those who are), the articulation of the deaf is almost always unpleasant to the ear. Even in cases where children have learned to speak well and pleasantly before becoming deaf, when the voice is no longer guided by the ear, it almost infallibly becomes harsh and indistinct, and these defects increase with time. It is easy to understand that the articulation that was never guided by the ear of the scholar, but attained by painful groping and mechanical adjustment of the organs of speech, must be much worse, both in point of distinctness and pleasantness. Many of the friends of deaf persons have painfully felt that it is more pleasant to have them talk with their fingers than to speak. Says Dr. Day: "In respect to tone, the speaking of the deaf and dumb is harsh, unnatural, and monotonous. Destitute, of course, of modulation and accent, it more nearly resembles what we should conceive a speaking machine might utter, than the usual speech of mankind. Sometimes it is a whining noise, like that of one in distress, and sometimes a sudden concussive sound resembling the bark of a dog. In many cases the unpleasantness is still further increased by a painfully high or low *pitch*, in some instances resembling a shriek, in others a groan. When to this are added the contortions of counte nance and the unnatural position of the mouth, produced by the effort of mechanically adjusting the organs and putting them into play, it will be readily believed that the articulation of the deaf and dumb is far from agreeable." †

In no respect, perhaps, have wilder exaggerations obtained currency than in respect to the ability which deaf persons can attain to read on the lips. Stories are told of deaf mutes, so called, who would hold a conversation of some length with strangers, the latter never suspect-

* See Dr. Day's two able reports annexed to the Twenty-sixth and Forty-second New York Reports. Among the confirmatory statements are those of the late Lewis Weld (Hartford Report for 1844-5), and Dr. Peet's Report of his European tour, annexed to the Thirty-third New York Report.

† Twenty-sixth New York Report, p. 169.

* Forty-second New York Report, p. 57.

† Twenty-sixth New York Report, p. 171 (New York Edition).

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ing the deafness of their interlocutor. One of the latest exaggerations of this kind is that put forth in a recent Report of the Board of State Charities of Massachusetts, in which we read: "If our mutes had been taught articulation, and taught as well as children are taught in the German schools, they might attend public worship in our churches . . . . and the intelligent ones would catch enough of the very words of the preacher to understand his discourse." Yet Mr. Day says that no deaf mute in Germany can understand a discourse from the pulpit, and when we consider the narrowness of the conditions which limit the ability to read on the lips, it will certainly appear physically impossible that they should.

In the first place, many articulations that are perfectly distinct to the ear vary to the eye only by very nice shades, difficult to be seized at all, and only at a near view and in a full light. Several letters, also, are formed by the motions of parts within the mouth, and which are out of sight.

In the next place, the enunciations of the letters produces in different individuals different external manifestations about the mouth, so that the deaf mute can seldom read on the lips of strangers, requiring to make a study of each new mouth before he can understand it at all. If the speaker wears a full beard, the difficulty is of course much augmented.

In the third place, most of the movements of the lips, tongue, etc., and the vibrations of the nostrils and larynx, which form a part of the traits in the labial alphabet by which several letters are distinguished, are so faint and slight —as well as evanescent—that to distinguish them it requires a very good eye, a full view of the face, a full light—equal to that necessary for reading, and finally a proximity to the speaker little greater than that at which we can read a book in fair print. This distance of labial reading, says Dr. Day, is usually not greater than five feet. Some, however, can read pretty well on the lips of their own teacher at the distance of ten and even fifteen feet. Here it is to be remarked that the teacher stands in a full light, directly facing his pupils; that he speaks slowly and very distinctly, with especial care to open his mouth so as to show the internal movements. In short, this case is analagous to that of a handbill in large print, which can be read at the distance of several paces, while the rapid discourse of a public speaker, though perfectly distinct to the ear, can no more be read on his lips by the most expert deaf mute than a newspaper in fine print, or rather a finely written and hardly legible manuscript, can be read at the same distance.

The practical result of these difficulties is that, as Dr. Day says, the most accomplished reader on the lips can do no more than make out a few of the words and guess at the rest; and hence only those can read on the lips beyond a few familiar and oft-repeated phrases, whose intimate knowledge of language qualifies them for such rapid guessing. The best examples of skill in this art have been persons who learned to speak well before becoming deaf.

In this country we have several semi-mutes, who, becoming deaf after learning to speak, have by close and laborious attention acquired a considerable facility in reading on the lips of their intimate friends. This faculty, however, is available only closely face to face in a full light. These persons, after learning to converse by signs, uniformly prefer, in point of full social enjoyment, the society of those who can converse with them by signs and the manual alphabet. By these alone can they take share in a general conversation, or converse without painful and fatiguing effort.

It should be added that this ability to read on the lips is by no means general among semi-mutes. If some, gifted with quick and strong eyesight, and rapid perceptions, are led to persevere in acquiring a facility in reading on the lips, many others get discouraged by the indistinctness of the labial alphabet, and are content to converse only by the aid of writing and the manual alphabet. And this last, by the way, is about as rapid as the slow and careful use of speech and labial reading with the deaf, taking into account the frequent repetitions the latter demands, and has the advantage of being available at a much greater distance and in a much dimmer light. In fact, on very many occasions in the family, on the farm, and in the street, in which important information or directions are to be conveyed to a deaf mute, reading on the lips would be useless from the distance or want of light, while the manual alphabet is fully available, and signs still more sure and speedy as a mode of communication.

The fact that reading on the lips is, in far the greater number of cases, a slower means of communication than the manual alphabet is not generally understood. Dr. Day says: "In consequence of these difficulties constant repetition is required in speaking to deaf mutes, however well instructed to read on the lips. The amount of this, of course, varies with different persons, but on an average I was assured that at least double the time would be necessary

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nvey a connected discourse to a deaf mute
ng well on the lips that would be required
ommunicating the same thought by the
ial alphabet. Nothing which I saw leads
o doubt it, unless, perhaps, in exceptional
, like that of M. Dubois, where the entire
tion of the parents for several years had
added to uncommon mental activity on
part of the deaf mute and much opportu-
tor practice." (Twenty-sixth New York
ort, pp. 90, 91.) And it appears that even
exceptional cases read fluently only on the
of those with whose peculiarities of utter-
they are familiar. This testimony of Dr.
is strikingly confirmed by a statement put
in a recent American publication of the
required by a lad, brought forward as an
nple of what can be achieved in reading on
lips, to sieze on his teacher's lips and write
a brief paragraph. He required consider-
more time to catch the words on his teach-
lips than to write them out afterward,
reas any bright deaf mute would have read
paragraph on the fingers in considerably
time than was required to write it.*
till it is freely admitted that articulation
reading on the lips are in some cases valu-
to the deaf. The question is in what cases
se acquisitions are practicable.
There are some children who are only par-
ly deaf. If neglected, they take places with
deaf and dumb; but by careful attention
y learn to distinguish words uttered in a
ng voice close to the ear, and to speak with
rable distinctness. Such cases are compar-
vely rare, and the peculiar kind of instruc-
n they require, being wholly individual, is
ch better given in a family than in a public
ool, especially as it ought to be begun not
ch later than children usually learn to talk.
There are others whose deafness is often most
found, but who could hear well in early
ildhood, and still retain much of the power
articulation then acquired. Though their
ech is seldom pleasant, and often unintelli-
le to strangers, there can be no question of
utility of preserving and improving it, and
accustoming those, at least, who have a good,
ick eyesight to read on the lips.
Finally, there are a few who enjoy neither of
e advantages above stated, but whose rare
ysical and mental organization gives promise
at the results of many years devoted labor in
aching articulation may yield valuable re-
lts. Such cases are prodigies, which some-

*See Mr. Gardiner Greene Hubbard's pamphlet in fa-
r of teaching articulation.

times reward the zeal and devotion of parents and teachers, but which can not be counted on in a school, where such special and long-continued labor can not be consistently devoted to a select and invidiously favored few out of many.

Only the two first classes, therefore, can, as a general rule, demand any special attention in an institution, and in their case nearly all that can well be done should be done in the family at home, in those early years in which the organs of speech are most pliant. All that their case requires, or that can consistently be done for them in a public institution, is to encourage them to speak and read on the lips as often as circumstances and opportunities permit.

The question has been raised whether these semi-mutes would not be better taught in a special school in which signs should be prohibited. We see no advantage in such a prohibition, or even in such a separation. The one great advantage which semi-mutes have over the true deaf and dumb is not in their being able to speak more or less intelligibly, much less in some of them being able to read more or less on the lips; but in the facility with which they conceive words, enabling them, as we have already observed, to use words in their private meditations as much as those do who hear and speak. This habit of thinking in words must be acquired in early childhood, and of course before the child is old enough to be received at an institution. Once well established, it remains, even though the outward speech should become quite unintelligible by disuse. On the other hand, where this mental habit of thinking in articulate words (internal speech) has not been established in early childhood, it is, as we believe, impossible to induce it by any subsequent training, unless the hearing be restored a case of such rare occurrence that we may leave it out of the account. Some children may be, by early attention in the family, kept in the class of semi-mutes, who without such attention might relapse into the class of true deaf mutes;* but it must be borne in mind that semi-mutes are only such by retaining language learned through the ear. Instruction in articulation through the eye and touch can not raise a deaf-mute child to the class of semi-mutes.

*To retain enough of language to become a semi-mute, the child must have acquired, before it became deaf, a certain degree of fluency in speech, and there must be some mode of answering its prattle in words—either it must be accustomed to read plain writing, or to read on the fingers, or to read on the lips. The principal advantage which the latter mode has in such a case is that it may sometimes be available where the child has not previously learned its letters.

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Hence it is that the prohibition of the use of signs in some articulating schools, while it may induce greater familiarity with phrases of every-day use, on the other hand retards the mental development and cramps the social enjoyment of the pupils, but is futile as a means of making them think, to any extent, habitually in words. And the advantages of greater practice in the use of words where signs are prohibited are seldom an equivalent for that rapid mental and moral development, intellectual activity, and extent and accuracy of information, which are so much better promoted by the use of an improved language of signs.

Even for semi-mutes, who converse and acquire knowledge with as much facility by words as by signs, the use of the manual alphabet has so many advantages over reading on the lips, that the teachers of articulating schools generally find it necessary to prohibit the use of that alphabet, as well as of signs, in order to force their pupils to make practical use of articulation and lip reading. Since even semi-mutes find themselves more at home where signs and the manual alphabet are used, and find in such a society greater social enjoyment, greater incitements to mental activity, and at least equal inducements and opportunities for acquiring knowledge by reading, we should consider the placing this class of deaf mutes in a separate school as wholly unadvisable.

As we have said, the precious faculty of internal speech is, on any method of instruction, unattainable by the true deaf and dumb. It can be originally acquired only through the ear, and where the ears are closed before this acquisition is at least mainly made, all that can be done for them is to furnish them with the best substitute that their case admits.

What is the best substitute we will discuss in our next number, and upon that choice of a substitute for the unattainable faculty of internal speech, develop the principles of the American system of instruction.

A Word for the Babies.

BY MRS. E. P. MILLER, M. D.

Poor little things that can not speak for themselves! How many are the hard thoughts engendered in their disfavor, to say nothing of the hard words and still harder blows which many of them receive from those unfeeling ones who forget that they were babies once, and just as fretful, just as cross, just as unlovely as those whom they have now no patience with.

But let me tell you your baby would not fret if he felt comfortable. Do you feel comfortable at all times and in all places? Do you always keep your temper about your surroundings? Do you not often curse with your heart, if not your lips, the inconveniences to which you are subjected? Well, your babe is overcome by adverse circumstances as well as you, and its fretting and crying are his only method of expressing feelings of discomfort, do not be impatient with the little one because he, in his language, is giving vent to his feelings just as his elders do in theirs. Stop a minute and consider if you would not "fret" and "fuss," only that you are ashamed of it.

Do you say, your "baby has been cross ever since he was born?" Then I reply, the poor child was born with some inharmony in his nature, and babes are not born thus unless the parents have imparted something abnormal, or failed to impart what every child has a right to—a perfect organization. Of the mother I would ask, What was your inner as well as outer life while you were bearing about the precious bud which is unfolding now? Were you pleased, even from the beginning, with the prospect of becoming a mother? Were you at any time anxious and worried, nervous, timid, frightened, overtasked, overwearied, mourning, weeping, heartsick, fearful for the future, unkindly dealt by, angry, passionate, enraged? Were your life-powers exhausted by marital excesses? In short, did any thing occur which you would dislike to have your child experience, and which you think would have rendered him fretful and worrisome had he felt as you did? If so, remember he was there as well as you! He partook of all your trials! Every thought and feeling has an influence upon the current of the blood, upon the development of every tissue and fiber, and the child in embryo can not but partake largely of the mother's experiences.

Considering all this, can you yet become impatient with the babe because he manifests the fruit of the seeds you have sown in his little body? And if you yourself were in high health of body and of mind, look to the father. What was his physical condition, his habits of life, his temper and disposition? What were the grandparents of the little one? If the baby is cross, he is not well; if he is ill, there is a cause for it, and he is not to blame for the cause. So you would do better to storm at the author of the mischief rather than at the innocent one who suffers its consequences.

A few words more, and I am done; and this word shall be for the babies whose illness every one admits—those who are under the doctor's

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care. And here let me whisper a truth: that in very many cases all the treatment a sick child needs is *rest* and *quiet*. Rest from play, rest from talk, rest from company, rest from food. Perhaps he has had too much of all of these—of the last two in particular—and now the doctor is called, and the whole house is in commotion, with each one telling how he has been, and how he was taken, and the talk over the poor babe is enough to make a well child sick. Then the neighbors, having seen the doctor's horse at the gate, scarcely wait till he is out of sight before they "run in to see who is sick." This is all very well, if they would run directly out again; but they must sit down close around the sick one and tell over all the remedies they have heard of as being good in such cases; then all the deaths they have been cognizant of from this disease—drinking up the pure air and disturbing the quiet he might otherwise get, till the poor little tired one is almost killed. And this goes on, day after day; for the parents, as well as others, seem entirely unaware that a sick child, even the veriest babe, feels the presence of company, and is injured by conversation quite as much, if not more, than an older person. The little weak nerves are grated upon again and again, and when I say, "You must not talk in presence of this child," they look incredulous and exclaim, "Why, do you think it hurts such a child!" Of course it hurts him, and many a child is *killed outright for want of rest and quiet when sick*. Physicians should realize this fact, and insist upon it that no one should be allowed to go near the child except those who are to take care of him, and that even these should refrain entirely from talking to each other and to the child.

Oh! it is a sad, sad thing to be a baby! A little bundle of flesh and blood with an immortal soul in it, entirely at the mercy of those in whose way it is thrown. My heart aches for you, poor little well-springs of pleasure! for to many of you I know life is but a fountain of pain. Mothers, I beseech you to consider that your babe is made of material just as sensitive as you are, and by as much as you have suffered and been made unhappy by rough usage, give the baby such love and care as shall render him happy where you have been most miserable.

THE death of one person from the pork disease, in Springfield, has caused the people to abandon pork, pretty generally. A dozen deaths from rum would not frighten them half so much.

The Co-efficients of Woman.

BY CLARA ETTECOS DARF.

MILLIONS upon millions of ink drops have flowed from millions of pens to describe the beauty and worth of woman, and yet how few speak of her in her true sphere, the *alma mater* of our race. The poor Roman penitent, shuddering at the sinfulness of his famished soul, dares not approach the tribunal of the all Omnipotent, but, kneeling, asks the Holy Mother to make intercession for him at the throne of God. Now, false as is this theology, the fancy is beautiful and even instructive. The compliment thus paid to woman is the most delicate that could be conceived. And, though we should yield our worship to God alone, the train of thought which this suggests is worthy of our attention. It gives to woman her true moral and religious characteristics. Almost godlike in the grandeur of his glorious intellectual gifts, man stands the monarch of the terrestrial. And yet those gems of power, though flashing with a light seemingly worthy of the immortals, gain not their holy, heavenly luster without the aid of woman. She smiles proudly as she watches his powerful mind in its daring aspirations. Stooping, he reads the mysteries of the tiny flower-cup; then turns, and mocking the lightning's deadly power, he sports at will with stern old Ocean. Is woman, true woman, jealous of this his wondrous power? No! for well she knows that his mission is to rule the world; hers, to soften and convert the soul of the master. O woman! high and holy is the charge that God has placed in thy keeping! How many are there that appreciate the sacredness of this charge—enough to fulfill truthfully the blessed mission? Is society, is our system of education, our church privileges, sufficient to teach her her true position in life—to engender in her a yearning for her rights? Start not, good brother, no reference to suffrage is intended. The only right that true woman craves is to be the moral restorer.

Smiles of scorn may wreathe the lips of some ascetic brother as he recalls the giddy dance, and the careless nothings that fell from the lips of the many fair one gathered there. But pause a moment! Did he find no good? Would not the presence of even the most thoughtless of that throng check the withering curse that anger often forces up? Or, if he searches more closely, does he not find an eye whose pure and gentle light would warm his cynic soul until he felt his spirit momentarily softened, and the word "mother," vignetted in rose and gold

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met his spirit gaze? O woman! *alma mater* of a race that might be almost godlike in beauty of soul and physique, this is the position in which we would view thee! Many are the co-efficients of thy power, but this is the most holy of them all, and from the cradle to the grave should keep thee ever sacred. From the cradle, too, should woman be taught to properly appreciate her grand destiny. Early in her youth she should know that the beautiful mechanism of her form is not only for show, and that rosy cheeks are not to be valued alone for their loveliness. Early indeed should she be taught that her pretty taper fingers should not be encased in a too closely-fitting glove, or her feet, large or small by nature, be compressed in tight thin-soled shoes. Tell her, you who have the task of teaching her, something of the beauteous goddess Hygeia, and that the transgression of a physical law is equally as bad as the transgression of a moral law. Does she, in her childish enthusiasm, earnestly crave and hope for the blessing of Clio? Teach her gently how worse than useless are those efforts of youth, and her dreamings only destructive to health. But one may ask, Would you check her desire for improvement? No! only as that desire becomes unhealthy in its tone, and in its fevered excitement the mind causes the body to succumb to its power. The physical must never yield itself to be injured by the mental. Should she not study? Yes; thoroughly and well! for we would have no non-entities among the race; but let her intellectual tasks be short at first, and perfectly learned. Above all, avoid the introduction of too many new subjects. In most of our seminaries, history, the sciences, metaphysics, mathematics, *belles lettres*, and the languages, are all introduced and finished in the space of three to five years! Introduced? yes, literally crammed down the poor fledgling, at a tender age, when every care, every attention to a wise hygiene and physical culture as well should be promoted, and nervous excitement avoided, and what is the result? Hydraulics, Latin prefixes, French verbs, conic sections, chemical atomic parts, angles, metaphors, evidences of Christianity, specific and generic terms, geological formations, meteoric wonders, radius vectors, and a thousand other things with and without names, try to find a niche in the crowded, wearied receptacle. And what is gained? A *melange*, it is true, of names and theories, without practice. Music, fancy work, and novel reading, fill up the few hours that can be spared from other labors, and the frail mill grinds on its different grains and weed-seeds, the heterogeneous mass mingling together until the poor grain despairs of ever knowing recognition again. So much for the mind, but harder still is it for the dwarfed body. The stooping shoulders, wasted frame, and pallid cheek are skillfully replaced by ingenuities of Parisian manufacture. The "coming out," or the *debut*, pronounces the poor wearied one a "*spirituelle*," and "matchless fair." Ambitious friends assist her to secure an establishment, and, regardless of physical or mental wants, life is begun. In such a home can we expect to find our sacred ideal *mother?* Are bodies worn out with disease and minds shrunken into indifference with every thing save the affairs of a lace, or a "love of a bonnet," or a "gem of a silk," to be the producers of a race little lower than the angels? Do we wonder that the sons of such women are effeminate, and the daughters merely forms for the display of dry goods? If we as Americans had enough of Spartan valor to hold in contempt such a race of effeminacy, the destruction would not be so fearful. But I have only pictured those who form the *eclat* of society. This total want of ability to grapple with the stern realities of life, this entire absence of all activity, is a mark *distingue* of a darling refinement. It teaches society to deem the slightest display of good old common sense as a token of vulgarity. Every thing is affected. The *prenez garde* of the *mere* is not from fear of moral or physical transgression, but the worshiped etiquette.

Every year we can see that, though gradual yet surely these false ideas of life are stealing in upon every grade of society. Small shopkeepers and tradesmen of every class are striving to remove their daughters from "domestic drudgery," and placing in the hands of servants those duties which, if discharged by their tenderly loved ones, would impart to them rosy health and a nobility created only in active independence. O woman! when will you check the deadly undercurrent and be what God designed you to be? When will you commence to boldly assert your rights, and strive to create an aristocracy, not of indolence and disease, but of health and intelligence? In the last two we find the co-efficients of woman's power. These will make her the regenerator of the human race. Man can not stand alone, for there are times when his most dazzling gifts seem worthless. Then it is he knows there is a food more delicate on which his soul may feast, and a purer light than it has yet obtained. For though the arch of man's power be perfect in its beauty, yet woman is the keystone, and if she falls the glorious structure is demolished.

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Answers to Correspondents' Notes and Queries.

BY A. L. WOOD, M. D.

Epilepsy.—"Is epilepsy curable? What its causes, symptoms, and treatment by different schools?"

Some cases are curable and some are not. The tendency to this disease is sometimes inherited, but is much oftener produced by gross dietetic habits, excessive indulgence of the animal propensities and passions, and the excessive use of tobacco, spirituous liquors, opium, etc. Various structural derangements—as malformation of the head, external injuries, and internal tumors—produce it. Where the predisposition exists, a paroxysm is often brought on by strong mental emotions, as of anger, grief, and fright; by indigestible food, an overloaded stomach, repelled eruptions, or the sudden suppression of customary evacuations. It is also frequently produced by the use of drugs given in the treatment of other diseases. Irritation of the stomach, however produced, is the most common exciting cause. The convulsive paroxysms are characterized by loss of sensation and voluntary motion, and the patient if standing falls; distortion of the countenance, foaming at the mouth, and general convulsions and rigid muscular contractions, succeeded, after a longer or shorter period, by a profound lethargic sleep. In some cases the fit is preceded by certain symptoms, varying much with different persons, but generally the attack is sudden. The treatment recommended by standard authors of the drug school consists, during severe paroxysms, of bleeding, cupping, leeching, enemas of asafetida and oil of turpentine, ipecac emetics, the warm bath, the application of external stimulants, etc. It would take pages of THE HERALD to even give the names of the various drugs recommended and used by the medical profession in the treatment of this disease, between the paroxysms. I will mention a few only, such as bleeding, blistering, pustulation by tartar emetic or croton oil, issues, setons, cauterization, opium, tobacco, nitrate of silver, sulphate of copper, preparations of zinc and iron, acetate of lead, sulphate of quinia, stramonium, belladonna, indigo, mercury, digitalis, strychnine, *et id genus omne.*

The Hygienic plan of treatment is very different from the above. During the paroxysm the patient should be placed with the head elevated, the clothing loosened about the neck and chest, plenty of pure fresh air secured, and the patient prevented from injuring himself. Cold applications may be applied to the head, hot applications to the feet, and cold compresses to the stomach. The restorative treatment must be given during the intervals. The most important thing to be attended to is the diet. This should be entirely vegetable, very strict, and rather abstemious. Great care must be taken not to distend the stomach. The diet should be restricted to dry brown bread, Graham crackers, roasted potatoes, baked apples, and the best of fruits generally. Not more than two kinds of food should be eaten at a time. Two meals a day are ample, and in many cases one would be better still. A daily morning hand bath, with much friction of the surface, and an evening sitz bath, are useful. Active, daily exercise in the open air and sunlight, to the extent of moderate fatigue, is important. Feather beds and pillows must be abandoned, and good ventilation secured in the sleeping apartment. Mental excitement of every kind must be avoided as much as possible. In the worst cases, very strict measures must be followed for a long time to effect a cure.

Weeping Sinews.—"What is the cause of weeping sinews, and is there any cure for them?"

They are generally caused by overwork, strains, or injuries. Strong compression, percussion, manipulation, and the douche bath are usually sufficient to promote absorption and effect a cure. In some cases it is best to make an incision and allow the fluid to escape.

Best Books for Home Treatment

"Please advise me as to the best books to read for family use, so that I may be able to do my own doctoring."

They are: "The Hydropathic Encyclopedia," Shew's "Family Physician," and Shew's "Children—their Management in Health and Disease." Prices, by mail, $4 50, $4, and $1 75. For sale at the office of THE HERALD OF HEALTH.

Is the Turkish Bath a Specific?

"Is the Turkish Bath a specific for diseases of the skin?"

A specific is "something which is certain to effect the result for which it is used; an unfailing agent." Accepting this definition, it is not a specific, nor is any one thing a specific for any disease. Although not a specific for diseases of the skin, the Turkish Bath is the most natural and effectual agent in their treatment.

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Dizziness, Cold Extremities, etc. "I am subject to dizziness, cold extremities, weak knees, languidness, and loss of flesh. What is the cause and remedy? I am confined twelve hours a day in a store."

The cause may be one thing and it may be another, and it may be, and most likely is, several things combined. If the querist had mentioned his habits of life, present and past, the exact cause could have been easily pointed out. The cause in this case is *probably* made up of "twelve hours a day in a store," with little or no physical exercise, great mental activity, bad air, improper diet, insufficient bathing, with, perhaps, strong drinks, tobacco, tea, coffee, etc., mixed in by way of variety. His digestion is poor, his liver torpid, his muscles weak, his head and internal organs engorged with such poor quality of blood as his enfeebled nutritive organs are able to manufacture. This is the case with thousands, who are literally "dying by inches" for the want of the knowledge of how to use and adapt the elements and conditions surrounding them, so as to regulate the machinery of life, and make its wheels run evenly and smoothly. To bring about the desired conditions of health they must change and regulate their habits in accordance with the laws of their beings. They must abandon their bad habits, whatever they are; exercise their brains less and their muscles more; eat plain, wholesome, nutritious food at regular, stated times and in moderate quantities; and breathe freely, night and day, of the pure, fresh air of heaven—yes, and bathe in it, too, as well as in the bright and joyous sunshine, and in the crystal, cleansing waters. Do this, and, if the mainsprings of life have not been too long and heavily laden with the transgressions of physical laws, they will gradually spring back to their wonted places as their burdens are lifted from them, the "red rivers of life" will send their vitalized currents dancing through their natural channels again, and existence will no longer be a dull, desolate, gloomy dream, but a bright, joyous, and hopeful reality.

Fillings for Decayed Teeth.—"Are the various compositions for filling the teeth—especially that known as the 'Lawrence Filling'—poisonous? and are they composed largely of mercury? My teeth were plugged with the Lawrence filling about a year ago, and have lately given me uneasiness in regard to my health. Should the filling be taken out? and would you recommend other treatment than the regular Hygienic modes?"

The compositions used in filling teeth are more or less poisonous. There are many persons who have had their health seriously impaired by the poisonous properties of these fillings. They contain mercury. The Lawrence filling is perhaps as good as any of them. The fillings should be removed, and, where possible, gold fillings substituted. Gold fillings are the only ones properly allowable, and there are very few teeth that are worth saving at all which a really competent dentist can not fill with gold. The teeth should be watched closely, and whenever a tooth begins to decay go right away to the dentist and have it nicely filled with gold before it is too late. If people would only keep their teeth clean, their stomachs healthy, and avoid hot drinks, saleratus, strong acids, etc., the profession of dentistry, in a few generations, would be a thing of the past.

Progress of Health Reform.—"What is the present state of affairs as regards Health Reform throughout the country? Is it progressing slowly or rapidly, or is it dying out?"

Never before was the progress so rapid as at the present time. People are becoming better educated upon health subjects, and, as they do so, place less reliance upon poisonous drugs, and more upon nature's own remedial efforts. There is not one-half the quantity of drugs taken now that there was five years ago. Physicians of the drug schools, by thousands, now give little or no medicine—except, it may be, bread pills or colored water to satisfy their patients—who, a few years since, thought there was no other way but to dose and drug. The Press, that great diffuser of knowledge, dispenses more freely than ever a knowledge of the great laws of human health and happiness among the needy multitude. Physiology, Hygiene, and Physical Culture are being introduced and taught in schools, academies, and colleges throughout the country. Eminent clergymen, lecturers, and writers, with their tongues and pens, aid on the great work of human redemption from disease, suffering, and premature death. Yes, the cause of Health Reform does progress, and will continue to progress until the people shall know, understand, and obey the laws which govern their bodies as well as the laws which control their souls.

Chocolate.—"You oppose the use of tea and coffee. What do you think of chocolate? Is it a healthful drink?"

It is not a healthful drink, but it is better than tea or coffee. Its tendency is to produce indigestion and torpidity of the liver.

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Hygienic Home Treatment of Diseases.

BY E. P. MILLER, M. D.

ie Stomach and its Diseases.—human body is the most complicated of mechanism known to man. It is com- l of a number of distinct sets of organs ing widely from each other, yet all work- n conjunction for the accomplishment of ame great end. There is the osseous or r system, the muscular system, the nerv- system, the circulatory, the respiratory, digestive, the excretory, and the generative ems; and upon the conjoined action of hese depend the generation, development, maintenance of human life. Every thought, ry sensation, every motion, every breath, pulsation, expends the vital force, or life- ver, of some of the tissues of which the ly is composed; and as soon as these tissues e their vitality they must be removed as so ich decayed and useless matter, or injury ll be the result. New material must be pplied to take the place of this worn out ssue, for if the waste exceeds the repair the ndency is toward the destruction of life. This ew material is obtained from the blood, for in at fluid are found the elements necessary for e formation of every tissue of the body. The lood is formed from food, which must pass rough a process called digestion before it is apable of becoming blood. The principal or- ans used in converting food into blood are the igestive organs, and the most important of ese organs is the stomach, this being the reat laboratory where the chief part of the ork of digestion is performed. The character f the food is here entirely changed; it is queezed, and pressed, and churned about, and, eing mixed with the juices of the stomach, it s dissolved and becomes a pulpy mass called hyme.

The digestive organs are known by the ame of the alimentary canal, and the stomach s by far the largest expansion of this canal. It is situated principally in the left half of the body, a little above and to the left of the na- vel. The heart lies above it, but is separated from it by the diaphragm or midriff; the spleen lies back and to the left of it; the pan- creas behind and partly below; the intestines below, and the liver upon the right side and above it, the small lobe of the liver extending across a portion of it.

It is irregular in shape, somewhat conical, and partially curved upon itself, the left side or end being larger and more rounded than the right. Its size varies greatly in different persons and under different conditions. Large eaters have much larger stomachs than those who eat but little, and vegetarians than those who use a mixed diet. Animals which live on grass and hay have enormous stomachs. When moderately full, the average-sized human stomach measures about twelve inches from left to right, and about four from the top down. Its weight is not far from four and a half ounces. The stomach is held in position by the œsophagus, or tube leading from the mouth, and also by folds of the serous membrane, which lines the cavity of the abdomen and envelops the abdominal organs. These folds are attached to the liver and diaphragm, and are called the lesser omentum and the gastrophrenic ligament.

The stomach is oftener changed in position than any other organ. Every time the breath is drawn in, the stomach is forced down upon the intestines by the diaphragm, while at each expiration the contraction of the abdominal muscles forces it back again. When empty it occupies but a small space, but when distended it crowds the diaphragm up, lessening the cavity of the chest, and often causes great difficulty of breathing. When the stomach is gorged with food, or distended with gas, its pressure upon the heart—which lies just above it—often causes palpitation, intermitting pulse, and many disagreeable sensations. Many, yes, most "heart diseases" are simply stomach-ails. Wearing corsets or tight dresses presses the stomach permanently out of place, and crowds the intestines down upon the pelvic organs, inducing every phase of female weakness and derangement. Fluids accumulating in the chest or abdomen, and also enlargement of the liver, spleen, or heart, serve to displace the stomach.

The stomach has two openings; a place of

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entrance toward the left, called the cardiac orifice, and a place of exit at the right called the pylorus, or pyloric orifice. It has two extremities or ends; the greater or rounded end—which is at the left—is called the cul de sac, or fundus; the lesser or pyloric extremity lies in contact with the liver, leads to the duodenum or second stomach, and is directly beneath the tender spot which many persons feel upon pressing with the point of the finger just below the sternum.

The stomach is composed of four coats; the outer, or serous, which comes in contact with the intestines; the muscular, the cellular, and the mucous. The serous coat is derived from the peritoneum, or lining of the abdominal cavity, and covers the entire organ, except a small triangular space at the greater and lesser curvatures, through which pass the bloodvessels and nerves that supply the stomach. The muscular coat lies immediately beneath the serous, and consists of three sets of muscular fibers—the longitudinal and circular, which are distributed over the entire organ, and the oblique, which are mostly at the greater extremity. The circular fibers are condensed and aggregated at the pyloric end of the stomach, and form a circular ring which extends into the opening and forms, with the fold of mucous membrane covering it, the pyloric valve.

The cellular coat—sometimes called the vascular, because it contains the vessels that supply the mucous membrane—consists of loose tissue connecting the muscular and mucous coats. The mucous membrane is the internal lining of the organ, the part with which the food comes in contact. It is thin at the cardiac end and thick at the pyloric. Its surface is smooth, soft, and velvety. In infancy it presents a pinkish hue, but in adult life becomes a pale straw or ashy color. When the stomach is nearly or quite empty, this mucous coat lies in numerous folds or rugæ, which are most marked along the greater curvature and at the lesser end of the organ. When examined closely, the mucous membrane presents small depressions of a honeycomb appearance; in the bottom of these depressions may be seen the openings of the little tubes through which the gastric juice exudes into the stomach. These tubes lie perpendicularly side by side in the entire surface of the mucous membrane; as those in the cardiac portion extend deeper into the membrane, they subdivide into several branches, but their function is the same—the secretion of the gastric fluid. Toward the pylorus the secretion assumes a mucous form, the mucous membrane is decidedly paler, and the tubular glands appear very different. The orifices by which they enter the stomach are nearly twice as large and much longer than the gastric tubules. The precise purpose which this gastric mucus serves in the process of digestion has not yet been ascertained.

The gastric juice serves a very important office in the digestive process; it is the true solvent of the food. The observations and experiments upon Alexis St. Martin demonstrated clearly the character of the gastric fluid and the office it performs in the digestion of food.

The gastric tubules, in a normal condition, secrete and throw out their fluid only when excited to action by the presence of food in the stomach. When the stomach is empty they remain at rest, but if constantly gorged with food they must be constantly at work and soon wear out. People who eat at all hours need not wonder that they get dyspepsia and die young, for when food is in the stomach an extra amount of blood flows there to supply the gastric juice, and if the little tubes have been overtaxed so that they can not secrete this juice, we have a double evil in the undigested food and the extra quantity of blood, which latter produces congestion, then inflammation, with derangement and suffering throughout the system.

From eight to ten pounds of gastric fluid is probably secreted by a healthy stomach during twenty-four hours. This is thoroughly mingled with the food, and, when it is dissolved, the greater portion of the fluid is reabsorbed into the blood, and in its turn comes around again to aid in the next process of digestion.

The principal diseases of the stomach are gastritis or inflammation, catarrh, hemorrhage or bleeding, ulceration, cancer, tumors, hypertrophy or thickening of the walls, atrophy or wasting away, dilatation or enlargement, dyspepsia, gout, and gastric phthisis or consumption. A consideration of these conditions will be reserved for future articles.

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THE EDITORIAL DEPARTMENT.



NEW YORK, NOVEMBER, 1867.

WATER.

"To the days of the aged it addeth length;
To the might of the strong it addeth strength;
It freshens the heart, it brightens the sight;
'Tis like quaffing a goblet of morning light."

☞ THE PUBLISHERS *do not hold themselves as indorsing every article which may appear in* THE HERALD. *They will allow the largest liberty of expression, believing that by so doing this magazine will prove to be more useful and acceptable to its patrons.*

☞ *Exchanges are at liberty to copy from this magazine by giving due credit to* THE HERALD OF HEALTH AND JOURNAL OF PHYSICAL CULTURE.

TOPICS OF THE MONTH.

BY M. L. HOLBROOK, M. D.

A MODEL TOWN.—The Social Science Review for April, published in London, gives a very interesting account of a manufacturing town in Ireland built up by Mr. J. G. Richardson. It is called by the not very euphonious name of Bessbrook, and is in the County of Armagh. It has been started in the memory of young men, and its founder is still in the prime of active life and a prominent member of the Society of Friends in Ireland. Its situation is one of the loveliest in all Ireland, sheltered on three sides by rising ground, but with an unobstructed view over a large extent of country on the fourth. The factory, from a small beginning, has grown to a large size, and employs at least three thousand hands. The building itself is a perfect model of taste and convenience, and designed with special reference to light, cheerfulness, and healthfulness. The grounds are laid out in the most pleasing manner. In summer the appearance is charming; in winter, delightful. Every loveliness that landscape gardening and rural art could devise has been secured. Gardens and cultivated lawns abound. It is almost like living and laboring in a second Eden. The town was built to accommodate the factory employes and is pleasantly laid out, and both conveniently and handsomely situated. Two co-operative stores belong to the workmen, one to the adults and one to the juveniles of the Band of Hope, who are its only stockholders. All the shopmen are chosen for their reputation for honorable and honest dealing. There are no two shops of the same trade, and yet every thing is supplied at fair prices and of the best quality. Whoever is found practicing dishonestly is requested to leave. The co-operative stores pay to the factory employes fair dividends, and furnish all the inhabitants with wholesome unadulterated provisions. Great care has been taken to secure this end.

The footpaths are all neatly kept, and the sewers scrupulously scavengered. The houses are of various sizes, to accommodate large or small families, and none of them are overcrowded. There is a reading room and library, with a room for amusements attached. This institution is well supplied with books, newspapers, and periodicals, and is a favorite place of resort. There is next to it a Temperance hotel for strangers, and, retired from the busy part of the place, there are large well-kept schools. To secure attendance at school no compulsion is used, but every parent is obliged to pay a tax of an English penny every week on each child of a certain age, whether it attends school or not. There is a dining hall next to the factory, where a wholesome dinner for those who have no families may be obtained at a trifling expense.

Although Ireland is not noted as a Temperance country, yet Mr. Richardson allows no liquor to be sold in Bessbrook, and although in every other town in Ireland a police force is required to maintain order, yet none is required here. Mr. Richardson maintains that so long as he keeps out drinking houses, either licensed or not, so long he can keep peace without the constable, but that so soon as the tap-room is introduced the police will be required. There is no drunkenness here, no quarrelling, no theft, no infanticide; in short, although the entire population is Irish, they are models of sobriety and good order. And, what is very remarkable, they entirely agree that if licensed tippling shops were opened, the reading room, the school house, the co-operative societies, would all be deserted for the dram shop, the gambling den,

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and the pawn office, and that the police barrack and handcuffs would take the place of the now comfortable and happy homes.

As a result of the enterprise of Mr. Richardson, we see comfort, intelligence, thrift, temperance, and happiness. The houses are clean, and the furniture good. There is not a single Irish cabin with its piggery and hennery in the kitchen; such as is very common even among the well to do farmers. The housewives dress neatly and are tidy. The children are healthy and well kept, and the world is greatly the gainer that Mr. Richardson, to whom it owes much for this example, has lived in it.

"Respiratory Food."—We do not think we have ever seen gentlemen of the medical profession in so mercenary an attitude as in the case of their testimony against the Boston liquor law. As these gentlemen almost never agree, but were entirely unanimous in this instance, we are instinctively impelled to think of a motive for agreement. Plainly enough this was furnished by the liquor dealers of Boston. The commentary on this testimony is furnished by the roughs of Boston, who no longer invite each other to "take something," but to take a little "respiratory food."

But our readers may be interested in learning that, in plain honesty, not only was this testimony a dishonest dodge, but that the whole notion of "respiratory food" is fabulous, implying on the part of these professional men a complete *ignorance* of the subject of food, save in so far as they have learned such mere phrases as that in question. Let us vindicate our assertion.

The term "respiratory *food*" was first used by Liebig, to indicate a completely erroneous chemical notion or theory of the destination in the body of certain substances we eat, as distinguished by him from certain other substances. But this theory was no sooner propounded than it was shown to be erroneous, and was immediately afterward admitted to be so, and since that time no *physiologist* who has occasion to refer to the subject but lays special stress upon the fact that it is so. And yet these gentlemen used this phrase to present the false appearance that alcoholic drinks were useful as a kind of food.

In our judgment it will remain a lasting and contemptuous scandal to them that they should have identified their names with so egregious a blunder.

Apart from this erroneous notion, what does this phrase, "respiratory food," mean? If it means any thing certain, it must mean "lung" food, the lungs being the "respiratory" organs. The literal meaning, therefore, is lung food. But what does the term "food" mean? What constitutes food? Is there a special food for the lungs, one also for the liver, and one for the spleen, etc.?

"Food" means substances of various kinds—animal, vegetable, and earthy—suitable for organic beings to eat. In themselves, outside of our organism, these have no power to nourish us, or to contribute, by so much as a particle, to our subsistence. But the moment we eat them, no sooner do they enter our stomachs, than their particles are separated, by a process the substances undergo in our organs, which converts them into a substance fit to nourish us. These particles go to every organ and every part of the tissues of the organism, transported by the blood, to be joined to the tissues, to replace other particles which have been used up or wasted. The lungs, in precisely the same way, receive what they require, as other organs and tissues. And the substances, which are food when eaten, and afterward nutritious when assimilated, bear exactly the same relation of supply to the lungs that they do to the liver or any other organ. This is only a physiological truism. What is the term "respiratory food," then, but a phrase which signifies not a true, but a totally and egregiously false impression? What does it do but mark an entire want of real knowledge of the subject by the gentlemen who used it in their testimony?

Alcoholic substances—those these gentlemen termed "respiratory food"—bear a somewhat different relation to certain processes that some other substances do. But this not because they are a special food—but, on the exact contrary, because they are "respiratory" excitants; that is, they increase or hasten the process which the lungs perform. But it is on this very account, among other still more important ones, that they are injurious.

Chemico-physiologists (if the name is not a flat contradiction in terms) have supposed that the use of such stimulants prevents or retards tissue metamorphosis or change, which is equivalent to waste, and by precluding the usual waste furnishes a kind of make-shift or substitute for the food otherwise required to make up the waste.

In no other sense have even the least strict of physiologists ever admitted alcoholic stimulants to bear any thing like the character of food. But even this furnishes a sufficient reason why they should not be used, for they preclude waste only by interfering with certain

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ıral and normal processes which, in health, ıys ultimate in waste.

his fact, truly apprehended, opens up the ıd and firmest possible ground of objection ınst alcohol in the mind of the physiologist, ıuse it shows that all alcoholic stimulants, he degree in which they involve alcohol, de- y the plasticity of all the soft-solid and fluid stances of the tissues, and thus inevitably nge the very character upon which their mal integrity wholly depends.

Ve are sorry that our Boston professional nds should have shown so extreme an igno- ce, scientifically speaking, of the problem of d, and have testified upon a subject of which y positively had no knowledge. They cer- nly ought to have been ashamed of them- ves; but the stock of effrontery and preten- n of this class of professional men will prob- ly never wane, so long as the possession of ie knowledge has not yet made them alive to eir real ignorance.

"What About the Girls."—Eliza rchard has written a very able paper with the ove heading which was published in The adical for August. We should be glad to have l our readers see the entire paper, but it is too ng for our pages. The following extract will ow that the writer understands very well the nportance of muscular strength as a part of ie education of girls:

"But reformers, one-sided still, have scarcely aid a word about pure exercise of muscle. Iuscle! Women have none! Take away the unning devices of the dressmaker, and of many beautiful American lady there will be left nly a skin-covered skeleton.

"Physical strength is a glorious thing. We re mocking at God for one of his noblest gifts when we despise it. The woman who can hold a twenty-pound weight on the palm of her hand, with her arm straight out from her body, can row a boat or swim, swiftly and gracefully, or, better still, can do the kitchen work of a whole household, is more to be envied than Helen of Troy. It is better to be able to walk ten miles without fatigue than to speak ten languages. A soul is of no account in this world without a body. The acquiring of all the physical strength in her power is as much a woman's duty as a man's, and it is simply idiotic for her to talk of coping with man in even the lightest employments, until she attends to this duty. Until she can walk a mile or so in stormy weather as in fair, let her not ask for herself 'the lighter kinds of manual labor.' It is nonsense. Physical perfection is indeed a glorious gift but strength and beauty must exist together, or there can be no perfection. A beautiful arm is lovely, but when a beautiful arm is also a strong arm, it is splendid. A beautiful woman is fair, but when her soul's casket is full of electric life and power in its every fiber, she is magnificent. There can be no true physical beauty without strength. No beauty of soul, either, for that matter, unless one can be crippled in the spine and turn saint. With one's joints in their normal condition, however, it is impossible to have a noble soul without also a good body. The good body outside must take care of the noble soul inside, and if there were no soul at all in the question, the body has still itself to provide for. The struggle for animal life is a battle of material forces alone, and sickly women will never be a match against healthy men. Those cadaverous, hystericky creatures who seek to leave the old-fashioned sphere, may as well go back and stay there. The working world has no call for them, with their puny bodies. No matter how strong their wills are, they will prove but stumbling-blocks to believers. Take an average city girl, with her weak, white hands, her colds, her headaches, her nervousness, her everlasting tendency to 'burst into tears' at any moment, and what does she amount to, even with a wealthy 'pa?' What, then, will become of this helpless potato sprout when turned out to compete with an active, muscular boy? Poor little potato sprout! Who would be free must first be strong. If the mothers of feeble girls would only allow them to become healthy, instead of making them proper!

"It is a pleasure, in perusing the early annals of the Beecher family, to find that their father encouraged his sons and daughters to romp alike. And what a satisfaction is it to be able to read that 'little Harriet' was the biggest romp of them all. And that other Harriet, over there at Rome,* she whose name is mentioned in the papers now and then, in her childhood was that horror of all modern mothers—a regular tom-boy. One would not mind having a few more Harriets, even though they were every one romps. For all human excellence, of what nature soever, depends upon the application of that golden saying of the ancients, 'A sound mind in a sound body.' And if women desire to be a stronger force in the world, let them take the first step to that end by obtaining more bodily force."

* Harriet Hosmer, the artist.

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"FOURTEEN TIMES" AS NUTRITIOUS.—In no department of science are teachers so ignorant as on the subject of physiology. Take, as an example and illustration, the following statement of a "teacher" of Hygiene. Dr. G. remarked that "phosphorus was fourteen times as *nutritious* as" some other substance named. Such expressions as this indicate not merely a single error, but an entire want of knowledge and understanding of the subject of nutrition.

The only notion which accords with the meaning of this phrase is that "nutrition" is a thing, entity, or substance. The very phraseology leaves no doubt upon this point. A thing or entity may be "fourteen" or any number of times more (or less) than another thing. Is nutrition, then, as given in the above statement, a *thing?* Obviously not. What is "nutrition?" It is, scientifically and correctly speaking, a process. Of course it implies, as prior to the process, a substance or thing. But this, by itself and apart from any organs is not nutrition. Nor is any quality or property which resides in it nutrition.

Nutrition, the process which it is, implies this substance. But true nutrition is wholly and simply that process which takes place when, having eaten such substance as food—having taken it into our organs, it is made to undergo a change and conversion, ending in our organism appropriating to itself certain of the particles of such substance.

The character of the error made in such statements is readily explained. For example, speaking of a thing—any thing—we say: "This thing is fourteen times as much as this other thing." Or, if we refer to its quality, we say: "This thing is very hot, or very sweet, or very salt," we should be correct. But when we come to identify "nutrition" in a similar way, as we do when we speak of it as fourteen times this, that, or the other, by comparison, we commit so egregious an error as to show plainly that we know nothing about the subject, and have no certain ideas about it. We speak of "nutrition—which is really a process—in terms which can only show that we have no idea of it as what it truly is, but only significant of a false idea that it is a thing, or else a quality or property of a thing—the error being the same in both cases. But the worst of the error we expose lies in speaking of "*phosphorus*" as being fourteen times as "nutritious" as some other substances.

In fact, phosphorus is never eaten, and it can t, therefore, be said to be "nutritious." It was supposed, undoubtedly, by the author of the above statement, that this form of substance was eaten in eating the various forms of organized phosphates found in the external portion or cuticle of kernels of grain. Phosphorus is a soft-solid, extremely inflammable, and extremely poisonous substance. If the phosphates be subjected to a process of analysis, we find it made up of two or three substances, neither of which, when artificially produced, have the slightest resemblance to the third substance they combine to form.

It is the third substance—the phosphates—we eat, and which are therefore food—not phosphorus.

Such statements literally prove how ignorant even pretended teachers may be of what they propose to teach.

They need instruction quite as much as the public at large.

Nutrition pertains to the organism, and is a process—not a thing nor what pertains to a thing. Can one sensibly speak of fourteen times a process compared with a thing? Certainly not sensibly, as we have said.

WHOLESALE INFANTICIDE.—In Birmingham, in England, there were, in 1861, 290,000 inhabitants, and during the past ten years 35,000 infants had died, and this mostly because the mother, instead of caring for and nursing her own child, leaves it in another's care to be fed on artificial food, so that she may attend to factory labor. Those children who survive this poor treatment are dwarfed and puny, and never grow to full size and vigor. There is nothing so sad as the fact of a mother, whether in high or low life, abandoning her own offspring to such treatment. It would soon depopulate the world. It very greatly reduces the chances of a child's life when brought up on artificial food. In England it is customary for married women to work many hours in factories, but the results on the children are so bad that there are serious outcries now against it.

PLEASANT LABOR.—It has been the experience of the proprietors of large manufacturing establishments in both this and other countries, that those artisans who are employed upon the fine art productions are so led captive by the pleasure of designing, modeling, chasing, and decorating, that they are generally prevented from falling into those low vices which would ultimately destroy their ability to produce the best effects in their labor.

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DRUG STORES — APOTHECARIES. — Few trades can get up such gaudy shows as the apothecaries. They generally seek the corner lot, so as to front both ways, have large open windows and various colored liquids displayed as signs, which in their appearance are certainly very handsome. But when one thinks of the use that is to be made of the long rows of bottled poisons that are arranged so prettily on the shelves, he is very apt to feel as if there was "death in the pot" after all, and he turns with a sad step away from the deceptive show. We are inclined to the opinion that the dispensers of drugs do about as much harm as the dispensers of alcohol. Their use is much more universal. Nearly every body takes physic, except those who have learned better by reading THE HERALD OF HEALTH, and many take their medical prescriptions almost as regularly, all through their lives, as others do their wine and brandy. A writer in The Medical and Surgical Reporter for September finds a good deal of fault that druggists, besides selling prescriptions, also sell in large amounts quack medicines, and even compound these nostrums themselves and recommend them to those who are ill. Says this writer: "Let quacks bolster up and sell their own nostrums, and let them and the community take the responsibility. Apothecaries should have no part in the traffic, for their knowledge of the effects of medicines ought to teach them how injurious they are when improperly administered. An excellent remedy for one disease may be a violent poison under other circumstances," etc. etc. This all sounds very well to the medical man, but the truth is deeper down than the above writer supposes. There is very little difference between the regular prescriptions and the irregular ones. Drug stores, like liquor stores, must vanish from civilized communities. It is only a question of time. Already many of the best doctors, even of the Allopathic ranks, give less medicine than Homœopaths do, and some do not give any. We are progressing more rapidly than we think in this direction. A few years more of hard work by the friends of this great reform, in circulating documents and exciting interest, and the work is done. Wake up, then, reader, put your shoulder to the wheel, and help us banish drug-shops and apothecaries from the world.

CORSETS *vs.* CORSETS.—A conspicuous fashionable *modiste* of New York strongly condemns corsets. Not the corsets *she* makes, of course. Hers she recommends by condemning all others. The curious will naturally want to know what can be the difference. Are not corsets corsets? And is not the special use in which their character consists the very ground of physiological objection to them? Corsets are a part of under-wearing apparel, whose sole purpose is to effect a change in the shape of the forepart of the trunk. Their sole use consists in compressing the fleshy and bony walls of the trunk so as to effect this change of contour. Whatever does this is a corset of some kind. And the evil of this is no greater in the case of one kind than in that of another kind. A condemnation of one kind is equally a condemnation of every kind, although our *modiste* would persuade us otherwise. But we introduced this for the purpose of saying that the evil usually assigned to corsets—namely, that of compressing the chest walls, is by no means the greatest or only evil they accomplish. The equally great or even greater evil they effect is that, in compressing the abdominal wall, they always press and push upward and backward the stomach, duodenum, liver, spleen, pancreas, etc., against the more sloping, backward portion of the diaphragm, and effectually preclude its descent or downward movement during the act of inspiration. This movement has the physiological use of continually acting dynamically upon the bulk of both the liver, stomach, and even the spleen. And it is, in great part, by aid of this movement that the thick venous blood of the former organ, particularly, is moved through the organ. The organ is thus prevented from becoming almost completely choked up, which it constantly tends to. Now it is a fact we have verified by careful observation that the long and low modern corsets, which descend to nearly the pelvis, effect this latter evil in a far greater degree than the old form or shape of corset. The former is the form or shape of corset our *modiste* condemns, and the latter is the one she recommends as being unobjectionable. It is really the worst of the two.

A PRISON RECORD.—Not long ago, in a prison where there were 569 inmates, it was resolved to learn how many of the victims were there from the habit of intemperance and other vices. The record stood as follows: Drunk, as a cause of their crime, 404; bad company, as a cause of crime, 103; destitution, as a cause of crime, 62. A vote was also taken to discover if the prisoners were in favor of lessening the number of rum-holes, and out of 569 only 3 were against it. The three were very young men whose opinions would be of little weight.

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Healthy Spices and Condiments.

FAST RELATIONS—Railroad connections.

THE HEIGHT OF PATIENCE—A deaf man waiting to hear the ticking of a sundial.

PATHETIC.—"His pill-grimage is over," as the druggist's wife said when she ordered an epitaph for his tombstone.

FITLY FIGURATIVE.—Two young ladies holding converse over a new dress. "And does it fit well?" "Fit? Yes! as if I'd been melted and poured in!"

DELICIOUSLY SUFFOCATING.—In describing a new organ, a country editor says: "The swell died away in delicious suffocation, like one singing a sweet song under the bedclothes." Smotheringly sentimental!

POISON.—

Wine is poison, and so is tea—
But in another shape;
What matter whether one be killed
By canister or grape.

A LOGICAL POSER.—A little girl, showing her little cousin, about four years old, a star in the firmament one clear night, said, "That star you see up there is bigger than this world." "No, it ain't," said he. "Yes, it is." "Then why don't it keep the rain off!"

TOO OLD TO LEARN.—A schoolmistress, while taking down the names and ages of her pupils, and the names and ages of their parents, at the beginning of the term, asked one little fellow: "What 's your father's name?" "Oh, you needn't take down his name; he 's too old to go to school to a woman!"

THE LAST RESORT.—Halab, the Arabian, being asked what was the most excellent thing in man, replied, "Sense." But if he have none, what then is the best? "Honesty." But if he has not that? "The counsel of his friend." And in want of that? "Taciturnity." And if he can not have any of these things? "A sudden death as soon as possible!"

PRECOCITY.—A lady found occasion to call upon a dentist to have her teeth filled. Among those filled were two front ones, and when in a pleasant mood the lady's face shone with smiles, while polished gold shone from the upper incisors. These were observed with admiration by her little niece, who, by and by, seriously remarked: "Aunt Mary, I wish I had copper-toed teeth like yours!"

THE COWARD'S "ARMS"—His legs.

WHY is a generous man apt to be a good Christian? Because he is for-giving.

SCIENCE.—More is often done for the brute than the man. Pigs attacked by the most fatal disorders are frequently cured after death.

ALPHABETICALLY ANSWERED.—A man asked why B stood before C? Because, said another, A man must B, before he can C.

HEALTHFULLY INCLINED.—The young lady who was recommended to take exercise to improve her health, says that she "will jump at an offer and run her own risk."

BARBER-OUS PRECOCITY.—A little four-year old having heard her father call her young brother "a little shaver," and desiring afterward to use the expression, could come no nearer to it than, "Oh, you little barber shop!"

GOOD!—The new style of paper bonnet, which is very beautiful, but certain to be spoiled by the least rain, is said to be a sure preventive to its owner against the catching of cold, because no lady will venture out with one in damp or threatening weather!

BETTER!—The carriage of a celebrated and very popular *prima donna* was upset in Central Park the other day, and the morning papers, in speaking of the accident, said, "We are happy to state that she was able to appear the same evening in three pieces!

BEST!—One of our Ex-Mayors, the other day, observing a large stone lying near his gate, ordered his servant, with an oath, to send it to Purgatory. "If, sir," said the servant, "I were to throw it to Heaven, it would be more out of your honor's way, sir!"

A NEW GRAB AT THE PEOPLE'S MONEY. The audacity of the New York city plunderers knows no limits. In spite of all law and all decency it has been determined that every person who crosses the iron bridge over Broadway at the head of Fulton Street shall pay a toll of two cents—the ascent and the descent.

FASHIONS IN HAIR.—The artists in hair have met and agreed that dark eyebrows are to accompany golden tresses, and golden eyebrows black hair. Brown or chestnut locks and curls are not to be tolerated. It is not quite settled if the chignon is to be maintained; it is believed not, if a more expensive and complicated decoration can be invented. The complexion is to be dead pearl pale, the lips very light pink, and the mouth to be worn slightly open.

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Literary Notices.

AMERICAN GRAPE CULTURE AND WINE MAKING. Illustrated with nearly two hundred engravings drawn from nature. By Peter B. Mead. New York: Harper & Brothers. 1867.

This is a book which every one at all interested in the cultivation of the grape should make himself familiar with. It gives plain, easily comprehended directions in regard to climate, location, exposure, shelter, the soil and its preparation, planting, training, description of varieties, modes of propagation, gathering, marketing, preserving, and other subjects relating to this important branch of horticulture. The illustrations are most beautifully executed, and the typography, paper, and binding all that could be desired by any purchaser. Grape culture, in this country, is yet in its infancy, and such works as this are much needed to educate the people up to a proper appreciation of its importance. As an article of food, the grape, in its most perfect state, is unequaled, and every person who owns a rod of ground should have his own grapevines and enjoy their luscious fruits. The only thing in the book which we can not heartily commend is the short chapter on wine making. It seems like desecration to convert the finest of earth's fruits into a subtle, fascinating poison, which intoxicates and oftentimes leads down to degradation and death its deluded victims.

BEYOND THE MISSISSIPPI—From the Great River to the Great Ocean. Life and adventure on the prairies, mountains, and Pacific coast, with more than two hundred illustrations, from photographs and original sketches, of the prairies, deserts, mountains, rivers, mines, cities, Indians, trappers, pioneers, and great natural curiosities of the new States and Territories. 1857—1867. By Albert D. Richardson. Hartford, Conn.: American Publishing Company; New York: Bliss & Co. 1867.

An exceedingly interesting and instructive book, written in an easy, pleasing, racy style, and abounding in useful information, spicy anecdotes, and short, pithy stories of Western life and manners. Sold only by subscription. Persons desiring this work should address the Publishers, who will direct one of their agents to call upon them.

ABUSES OF THE SEXUAL FUNCTION. By E. P. Miller, M. D.—This is a new book, and one of the most important of the age. It discusses fully the different forms of sexual abuse and marital excess, and the evils that grow out of them; gives the causes, the effects in producing disease and destroying life; and clearly points out the only correct way of preventing such abuses and curing the diseases engendered by them. This book ought to be read by every person old enough to comprehend it. It will be ready for mailing on the 1st of November. Price—paper, 75 cents; cloth, $1. Address Miller, Wood & Co., 15 Laight Street, New York.

KATHRINA—Her Life and Mine, in a Poem. By J. G. Holland. New York: Charles Scribner & Co. 1867.

The many friends of Timothy Titcomb will welcome with delight his new work, and though it may not *quite* equal his far-famed "Bitter Sweet," yet is worthy of and will receive a wide-spread popularity. It contains many fine passages, and merits the perusal of all lovers of poetic literature. Price, $1 50; full gilt, $2 50.

THE MINIATURE FRUIT GARDEN; or, the Culture of Pyramidal and Bush Fruit Trees. By Thomas Rivers. From the Thirteenth English Edition.

GARDENING FOR PROFIT—A guide to the successful cultivation of the market and family garden. By Peter Henderson.

These two works are issued from the enterprising house of Orange Judd & Co., New York. The first, as its name suggests, is intended for the use of those who desire to grow the best quality of fruit, in the largest quantity, from a limited area of ground. It gives full directions for the cultivation of dwarf pear, apple, peach, plum, cherry, and other fruit trees. It being an English work, the selection of varieties could not be taken as a guide in this country. Price, $1. "Gardening for Profit" is a neat, well-illustrated volume of two hundred and fifty pages, written by a practical and successful gardener, and worth ten times its cost to any one engaged in market gardening. It is also a valuable book, from which many hints may be derived by those who wish to make the most of the family garden. Price, $1 50.

EPITOME OF ELOCUTION.—By Rev. B. W. Atwell, Professor of Elocution. Providence, R. I.: Bangs Williams News Co.

The author, in his preface, says:

"This work is brief but comprehensive, containing all the important ideas of elocution. Most works of its character are burdened with complicated rules and exceptions, so that but few, if any, attempt to master them. I have endeavored to avoid this serious defect, and to present a popular method which every person at once comprehends and finds pleasure in perusing."

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Premium List for 1868.—Our Premium List for 1868 will be found opposite the first page of THE HERALD. Every article offered as a premium can be depended upon as being the best of its kind, as we will offer no other. Who will obtain the most valuable one?

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To Our Readers.—Another number closes the present volume of THE HERALD OF HEALTH. What it has been during the present year its readers well know. We have endeavored to make each succeeding number better than the preceding one; we leave others to judge if we have succeeded. We can truly say that we have as good a corps of contributors as any magazine in America, and we are constantly adding to the list. It is emphatically "an original magazine," every article being specially written for its columns, and is more extensively copied from than any other. Our motto still is "Onward and upward." In the future, as in the past, our aim will be to make THE HERALD the best family magazine in the world, and we shall spare no pains or expense to accomplish our purpose.

Reader, we ask you to help extend its circulation. We ask it not for ourselves, but for the thousands of families all over the land who are now suffering, or who, from ignorance of the laws of their beings are laying the foundation of future ill—we ask that you aid us in bringing THE HERALD and the great truths which it teaches before them, that they may learn to know themselves, to obey the laws of their physical organizations, and thus escape the sure penalty of their trangressions. We ask you to do what you can to help on this great work in which we are engaged. If you induce a single family to read and practice the truths of Hygiene, it may be the means of preventing sickness, and of saving life itself. If you induce an hundred families to do the same, you will do an hundred times as much good. By referring to the Premium List opposite the first page of this number, you will see that we offer you additional inducements to extend the circulation of THE HERALD, in the shape of valuable premiums, to pay you for your time and trouble. Now is the time to obtain subscriptions for the coming year, and if our friends and co-workers will take hold of the work in earnest, we shall soon be able to present a subscription list of fifty thousand.

Letter from Gerritt Smith.—"PETERBORO', N. Y., *October* 4, 1867.—Inclosed are two dollars, which you will please credit on my subscription to THE HERALD OF HEALTH.

"I value this periodical very highly. Were it thickly scattered over the whole land, what a revolutionary power it would prove!

"Professor Tyler's 'Athletic Club' is worth more than the price of each number it appears in. By the way, he is one of the most brilliant and racy of all our writers.

"Respectfully yours,

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Send Stamps.—Persons sending for circulars, or wishing answers to letters sent us, must inclose postage stamp to insure a reply. Three cents is but a small amount for one to pay, but when you pay that amount on three or four thousand letters it amounts to many dollars.

Write Plainly.—All letters should be directed very plainly, and all names should be carefully spelled. Sometimes people write so *they* can read the names easily, because familiar with them, but others can not do so. Mistakes may arise in this way. The address should also be well defined and written plainly.

City Subscribers.—Subscribers who reside in New York city or Canada, should add 12 cents extra to prepay postage, as the law requires that it be paid in advance.

Sewing Machines.—We are constantly getting Clubs of 30 and 40 names, and sending to the persons who get them up a Sewing Machine. One lady got a machine worth $72 for the clergyman's wife, by sending 40 names and $80. One young girl in New York got 60 subscribers, and we gave her two machines valued at $55 each, one of which she gave to a soldier's wife in Ohio, as a free gift. One soldier, who was scarred and maimed in defending the Union, got up in a few days a large Club, thereby obtaining a sewing machine for his wife, which will lighten her labors and increase her income. We have sent machines to Maine and Oregon, and to a large number of our friends elsewhere. The offer is still open to any who choose to make the exertion sufficient to get 30 subscribers.

Persons of Influence.—We are constantly receiving letters from men and women in high position in society thanking us for publishing so valuable a magazine, and intimating that they intend to use their influence to extend our circulation. We are very thankful for these kind letters. Such persons are often unaware of the amount of good they may do. Their example and influence in a town or community is very great, and goes far in building up that which may need their labor. We hope that those who think an increase of our circulation among their friends would do good, will find time to assist in increasing our list.

Money Orders.—Persons who send money orders should state to whom they are payable and by whom given. We prefer that all persons sending money should do so by means of money orders, where they can obtain them. It is entirely safe to do so, as these orders are perfectly useless to any but the rightful owner. Drafts on New York, however, are always perfectly satisfactory. When none of these are to be had, currency can be sent safely, if properly directed and carefully inclosed.

Special Request.—Our friends will oblige us, and benefit others, by sending us the names and post-office address of all invalids with whom they are acquainted; also, all friends of Temperance, Health Reform and Physical Culture. Any one who will send us a list of 25 *bona fide* names of such persons shall receive free by mail a copy of Prof. Wilson's work of 75 pages on the "Turkish Bath."

The Pangymnastikon.—We can not afford the space necessary to keep a long advertisement of this valuable instrument in our journal, and therefore take this means of saying that we will send them for $10 and $15. See back numbers of this magazine, or send for a circular.

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The March Number.—The March number of THE HERALD for 1867 is out of print. Persons having them to spare will be paid 20 cents in boots by returning the same to us in good order.

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Lincoln at Home.—It will be seen by rence to our List of Premiums for 1867, that for a Club 0 new Subscribers and $20, each of these Subscribers be entitled to a picture of "Lincoln at Home." s picture is a large steel engraving, which sells for $1, in many places even as high as $2. There are very ny engravings of Lincoln, some of which sell as high as a copy, but in our opinion none of them have the ne elements of popularity and are so characteristic of man as this one. It was engraved from a photograph, represents Lincoln and his little son looking over the es of the Bible together, gathering strength and wis- n from the words therein. We are sure it will please ry one of our subscribers to possess one, and we are opy to be able to make so liberal an offer with this end view. It will be sent by mail prepaid.

The Orthopathic Philosopher.—See r advertising pages for a synopsis of the contents of the w book now in press entitled "The Tree of Life," by old physician, Dr. Isaac Jennings, who has practiced twenty-five years what he preaches. Send in your or- rs. Now is the time to lay out plans for an early fall nvass. This work and THE HERALD OF HEALTH would more good and save more money to the people of this untry than thousands spent otherwise with the advo- tes of "poison, drugs, and ruin."

Filters.—Clean water for drinking and linary purposes is very important. This can be had by ing Kedzie's Filter. See price, etc., in another column. lers should be sent to Miller, Wood & Co., No. 15 Laight reet, New York.

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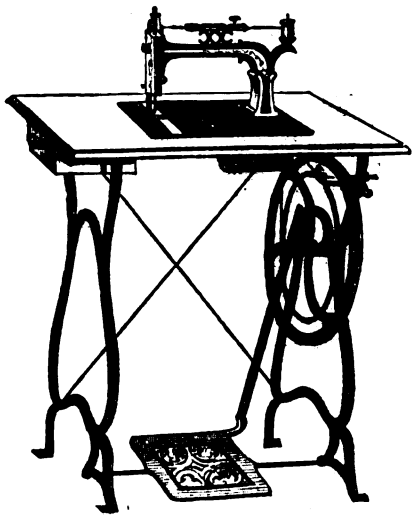
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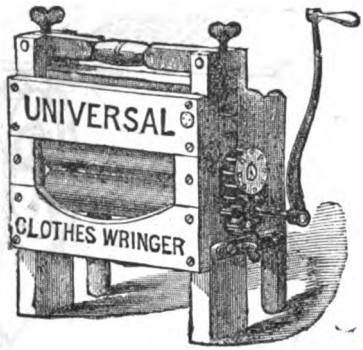
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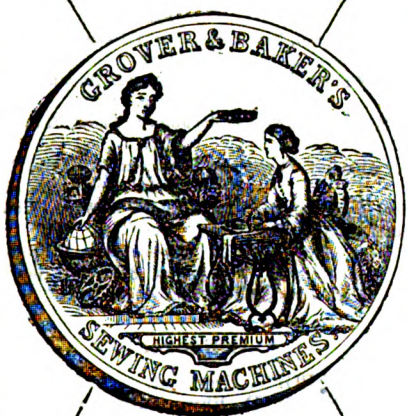
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AND

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DEVOTED TO

HYGIENIC MEDICATION, BODILY DEVELOPMENT, AND THE LAWS OF LIFE.

DECEMBER, 1867.

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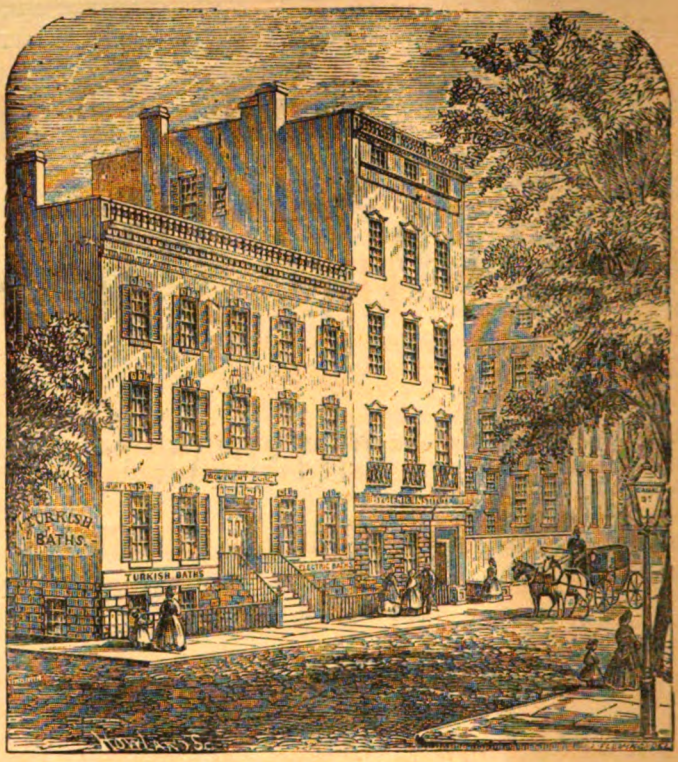
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General Articles---Hygienic and Miscellaneous.

MINUTES

OF THE

Brawnville Athletic Club.

EDITED BY MOSES COIT TYLER.

IX.

OUR QUESTION BOX.

BRAWNVILLE, *August* 21, 1866.

"ONE half of the world does not know how he other half practices gymnastics." This as Judge Fairplay's abrupt remark to-night, s he took a small, foreign-looking volume from ie table and began turning over its leaves. Ve had just finished the formal business of ieeting, and had reached what we have learned consider as its conversational stage; and we l understood, by the quiet yet startling way which the Judge uttered that single sentence, at he had something more to say to us.

"Every body has heard of German Gymnas-s," continued the Judge, as he kept fumbling ith the leaves of the book, "and of Swedish ymnastics, and of Greek Gymnastics; but here 's the man among us who ever heard of rsian Gymnastics? Who can give us a de-ription of an Athletic Club House among the re Worshipers? Do you give it up? Do u admit yourselves floored? Well, there is one sure rule I can give you for ascertaining any thing you wish to know, whether concerning the earth, or the things under the earth, or the things above the earth—go to the Germans. Their *forte* is omniscience. They have written a book on every conceivable and inconceivable subject. As George Henry Lewes has said: 'The Germans have written *de omne scibile—et scribile.*' Now, do you know, 'I hold in my hand,' as the speech-makers say, a book written by one of this all-knowing race. It is by Niebuhr. Let me tell you its title—you will be charmed with it: '*Reisebeschreibung nach Arabien.*' I want to know whether the Persians practice gymnastics. No mortal with an English tongue in his head can tell me; so I go to this wise fellow with a German tongue, and he tells me all I require to know. Just listen a moment while I translate a short passage: 'The Persians have houses which they call *Surchone* —the Home of Strength—into which any one may go to make exhibition of his strength. The first exercise which was used consisted in placing the hands and the feet on the ground, and stretching them as far as possible from each other, without touching the ground with the stomach. While in this position a circle was described with the head, and, after every second circle was completed, the diameter also. Some did this at least eighty times. Then some took in each hand a large piece of wood, and moved it in different directions on their shoulders, forward and backward. Some pushed with their feet against a board placed obliquely against a

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wall, and some walked about on their hands on the floor. Many began to spring about, sometimes on one foot, sometimes on both, and this as strongly as possible, in order to exercise the body more. Some laid themselves on their backs, with cushions under their heads and arms, and in that position raised in each hand a very heavy piece of wood, according to a certain tune that was played to them. Few performed this, as it required uncommon strength. The teacher then placed them all in a row, and made them go through a great variety of different motions, which, however, I am unable to describe. After this they began to wrestle in pairs, and, when one was thrown flat on the ground, he reverentially kissed his conqueror's hand. No blows were given, however, as the English do when they box.'

"There! What do you think of the state of Muscular Christianity among these Pagans of the East? By the by, those fellows who lift heavy pieces of wood 'according to a certain tune that is played to them,' seem to have worked out for themselves the idea of music as an aid to gymnastics; and their case proves that the plan of setting a tune to the movements of the body is not the peculiar invention of Freubel and Dio Lewis. However, I must not delay longer to open the Question Box, and see with what queries you propose to puzzle me tonight."

With this last remark the Judge drew toward him a little square mahogany box which is now kept standing on the library table, and is used, as its name implies, as a depository for written questions upon athletic and sanitary topics about which any member may desire to ask the President. There is a narrow aperture in the cover through which the communications are dropped; and once a month the Judge opens the box in the presence of the Club, and delivers his views upon the topics thus suggested:

MONKS AND GYMNASTICS.

"The first question which I fish out from this pool is expressed as follows: '*Sir*—On a recent occasion you stated, incidentally, that the influence of the early monks and ascetics of the Church was unfavorable to respect for the body and to a just care for its welfare. Please to explain this.' Well, it appears that in the early centuries of the Christian Church there were tribes of ascetics and anchorites, assuming, indeed, the Christian name, but actually appearing to be ashamed that they had bodies at all. They seem to have imbibed that dogma of Oriental Paganism which taught that matter is the very essence and principle of evil. By a very obvious logic, and with the most religious zeal, they concluded that their duty was to scourge and to lacerate their bodies; to starve, neglect, insult, and maltreat them as a source of piety. Even Luther, who emancipated his soul from so many superstitions, was still so much of a monk that he condemned, as a Pagan maxim, Juvenal's magnificent, though now horribly hackneyed, motto: *Mens sana in corpore sano*. I remember reading of one old monk who wanted to express his abhorrence for his body by both words and deeds, and who accordingly named his body 'Balaam's Ass,' and used to rise several times every night to beat it. Of course, during all those ages when the influence of monastic sentiments predominated over Christendom, we can not expect to find any traces of gymnastic culture, or of any attention, in any form of benefit, to the poor, despised, and detested body. It was a sign of saintliness to be dirty, crooked, sallow, emaciated, and a propagator of intolerable stench. After a man was baptized, he had no further external use for water."

MODERN CONTEMPT FOR THE BODY.

"And it is worth a moment's delay to consider some modern remnants of this old monastic horror of living flesh and blood. For, although this religious scorn of the body may be no longer distinctly avowed, either by sects or by individuals, I appeal to you, is there not diffused through Christendom a vague, almost unconscious, yet very operative sentiment, that our corporal natures are in some special sense unworthy, accursed, mean, despicable, the source and avenue of sin? How many Christian hymns are heavy with this chant of pious horror at the poor body! How many Christian homilies point the finger of saintly scorn and the arrow of ominous warning at our physical natures! How many Christian prayers bewail the sinfulness of the body, instead of the sinfulness of the soul, and complacently pass over to the blame of the former errors and crimes which spring from a proud, a discontented, an ambitious, a selfish, an undisciplined disposition!

"Now all this may be very good Paganism, but I fervently object to its being sheltered under the venerable and joyous shield of Christianity.

"Matter is not the principle of evil. Matter has no property which is sin. Matter has no moral property at all. Matter the 'principle of evil!' Monstrous! Why, matter is the sub-

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tion of God; and it would be simply blasphemous to suppose that God created the 'principle of evil.'

"And we read in a certain grand old volume that, when God had finished this material world, with all its beautiful kingdoms of vegetable, animal, and human life, he smiled his benediction upon it and called it GOOD. Our bodies are but a portion of that material universe which thus received the divine approbation. An inspired writer stands in awe before the marvelous framework of the body, and reverently speaks of it as something 'fearfully and wonderfully made.' The Apostle exhorts us to 'present our bodies a living sacrifice unto God, holy and acceptable, which is our reasonable service.' Would it be possible to do this if our bodies were the very 'principle of evil?' Finally, this—this—seems the very spirit of Christianity, that all God's gifts to us, whether material or spiritual, are good, are sacred, and are to be revered in honor of the Giver; that sin does not consist in the gift, but in the misuse of the gift; that our bodies, being made by God and given by God, are in themselves, in texture and structure, good; that this old, lurking, mediæval, monastic contempt for the body is really an insult and an ingratitude to the Giver of the body; that our bodies contain infinite proofs of the divine beneficence, wisdom, and power, and that therefore they are never to be scorned, nicknamed, scourged, and neglected, but are to be cherished as sacred with religious fidelity, gratitude, and awe. And thus obedience to the laws on which the body's health depends becomes a matter of religious obligation."

SANITARY REFORM.

"Now for the next question." Here the Judge put his hand into the box and drew forth another scrap of paper. "'What is the scope of sanitary reform?' Ah! I can give you a beautiful answer to that question. It is an answer which I remember as occurring in a lecture by that *once glorious* Muscular Christian, Charles Kingsley. 'Sanitary reform,' said Kingsley, with felicitous illustration, 'is a sacred crusade against dirt, degradation, disease, and death!' What can be desired better than that? Alas, that the author of 'Alton Locke' should become the apologist of Governor Eyre, the champion of a pro-slavery rebellion and a toady to Toryism!"

FISHING FOR MEN.

"What have we next? Why, it is quite an epistle. '*Sir*—Can you interpret to us the meaning of the following sentence, which I lately read in the works of a distinguished living author. The statement seems reasonable; but I should like to know if there are any facts to illustrate and confirm it. This is the sentence: "We may as well throw our money into the gutter, or go fighting windmills, as to try to make our poor fellow creatures better while we neglect their physical condition. I weary of the old dole of charity which is lost in the increasing miseries of the age." Yours, obediently, BOOKWORM.' Well, Mr. Bookworm, I wonder how you could worm about among books for any length of time and not find multitudes of facts to exemplify that statement. At this instant I recall a story pertinent to the case from Neander. It occurs in his Church History, and I think in the third volume. By the way, haven't we Neander on our shelves? Yes, to be sure we have. Hand me, please, friend Thompson, the third volume, and I'll read you something which shows the importance of physical relief as preparatory to spiritual, and contributing to it. Here's the passage the first thing: 'Last of all the provinces of Sussex [Eng.] were converted to Christianity. Their King, it is true, had been baptized before; but the people continued still to be devoted to their old idolatry; and a few Scottish monks, who had founded a monastery in the wilderness and led an austere life, were unable by that means to gain the confidence of the rude people, or to find any opportunity of preaching to them the Gospel. It so happened that Wilfred, Archbishop of York, a descendant from an English family, was deposed from his office by occasion of a quarrel with his King, and he here sought for a field of labor. He better understood how to let himself down to the wants of the untutored multitude. On coming among them he found them in circumstances of great distress—a drought, occasioned by the want of rain, having been followed by a severe famine. The neighboring lakes and rivers afforded, it is true, abundance of fish; but the rude people were still wholly ignorant of the mode of taking them, and only knew a way of fishing for eels. He caused, therefore, all the nets to be collected together, and his attendants caught three hundred fishes of different kinds. A third part of these he distributed among the poor, another third he gave to those who furnished the nets, and the remainder he reserved for his companions. Having thus, by such gifts and instruction in the art of fishing, relieved the temporal necessities of the people, he found them the more inclined to receive instruction from him in spiritual things.'

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"Good for old Wilfred! He was a prelate of common sense, and that is more than can be said of most prelates. He knew that often the best way to fish for men was to begin by fishing for fish. He knew that he could not get the Gospel into men's hearts while there was so much hunger in their stomachs.

"Is there not a sublimer illustration, and one known to all men? Was not this the principle of Christ's ministry? Did he not devote himself primarily to the physical good of the people—healing the sick, letting light into sightless sockets, opening ears to the melody of sound, feeding the hungry, and causing the lame to walk?

"So I look upon our Club House as the nearest auxiliary to the School and the Church. And my friend, Mr. Bland, wins many a soul to the truth by showing men how to leap over the wooden horse, or to whirl on the parallel bar. What can the most impressive sermon do for a man half dead with a torpid liver? Would you save his soul?—first save his body. Would you convert him from the error of his way?—make him go hand over hand up yonder inclined ladder."

AN AFTER-THOUGHT.

"There is an epigram of Rousseau which expresses a profound truth, and one bearing upon this very topic of the relations between the spiritual and the material parts of our nature: 'The stronger the body, the more it obeys; the weaker the body, the more it commands.'

"Do you not see how this bears upon the question of a man's moral behavior? What is vice—any vice—but the overwhelming of reason and conscience by an anarchy of passion? But what unmoors the passions from their true places, and drives them in tumult and lawlessness upon each other—what but bodily infirmity?

"And is this to be tolerated if we can help? No, not for a day!

"I have read to you to-night a description of Persian gymnastics; but I remember something else that is good about those same Persians. It is this fragment of one of their poems:

> "'Make his reason serve his passions?
> That is what man never should;
> To the Devil's kitchen angels
> Never carry wood.'

"Does any man doubt that the weaker the body the more imperious and overbearing it is? Why, Voltaire declared that the fate of a nation has often depended on the good or bad digestion of a prime minister. Motley avers that the gout of Charles the Fifth changed the destiny of the world."

[TO BE CONTINUED.]

THE HUMAN VOICE.—Dion Bourcicault commenting on the Albert Hall of Science and Art, in The Pall Mall Gazette, says: The human voice, when speaking with clear articulation and supplied from good lungs, will fill 400,000 cubic feet of air, provided they be inclosed in a proper manner, and the voice placed and directed advantageously. The same voice singing can fill, with equal facility, 600,000 cubic feet. When singing, the vowels are principally used, because it is necessary to dwell upon a note, and we can not prolong a consonant. In speaking, on the contrary, we depend for articulation on the consonants; but their short percussive sound does not travel. When we shout, or in open-air speaking, which partakes of shouting, we prolong the vowels, drawling the syllable of each word; but what we gain in sound we loose in clearness of articulation; expression is lost in monotony; because its fineness depends upon the infinite variety of which the consonant is capable and bestows on the vowel; 2000 voices, singing or speaking together, travel no further than one voice. They may fill a certain area more completely with that intricacy of waves which, when very troublesome, we call a din; but each voice exerts its own influence on the air according to its power, and dies away within certain limits. A second voice acts independently, and produces its own separate effect, not fortifying the first, but distinct from it. And so with any number of voices—say 10,000—shouting together, if a single trumpeter were placed among them, the note of the trumpet would be heard clearly at a distance where the Babel of voices would have expired in a murmur. Yet, among the din produced by the 10,000 voices the trumpet would be inaudible. To illustrate this theory more clearly, it is plain that 2000 persons can not throw stones further than one person. It is true, that the air within certain limits, will be more full of stones; but they will all come to the ground within a limited area.

COMMEMORATIVE WEDDINGS.—Two years after the wedding is the "paper wedding;" the fifth anniversary is the "wooden wedding;" the tenth, the "tin wedding;" the fifteenth, the "crystal wedding;" the twentieth, the "china wedding;" the twenty-fifth, the "silver wedding;" the fiftieth, the "golden wedding;" the seventy-fifth, the "diamond wedding."

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Education and Preparation of Mothers.

BY PROF. JAMES BURNS.

The young of all creatures are devoid of experience and hence require teaching. The lower the grade of the animal the more instinct does it possess to enable it to arrive at a position of individual independence without the aid of a teacher, but those in whom the organism is more complex and the means of subsistence and protection more elaborate, the period of infancy is proportionally protracted, and the creature is more helpless under it. This especially applies to human beings. Their capacity for development is infinitely greater than that of the lower animals. The period of infancy or helplessness is also longer and the casualties that are liable to befall them in this infantile state are proportionately augmented.

The mother is throughout creation the natural teacher. In so far as the young of any species requires immediate care, the mother is adapted to undertake that duty. The lower animals have implanted within them by nature invaluable instincts for their guidance in these important duties. Sometimes, indeed, these instincts are weak in proportion to the more selfish propensities, and the female parents of many of the lower species turn round and devour their brood.

This, however, is an exception to the rule. The mental constitution of man is of the most complex and exalted description with which we are acquainted. It is infinitely capable of improvement by exercise and experience, and is subject to the law of progressive development. But, without cultivation, the mere possession of these latent faculties will not enable the individual to triumph victoriously over the difficulties of life, and endow him with the capacity to transmit a lofty mentality and healthy physiology to his offspring. Hence, education in respect to man becomes an absolute necessity. Let us apply this rule, then, to the important relations of maternity and nursing, and a gleam of light will at once drive away the shades of ignorance which at present conceal from our view the causes of mental misdirection, physical weakness, and death, which at present annihilate one half of the population before they arrive at puberty, and inflict grievous disabilities upon those who survive. The mother most truly has implanted within her those elements of life, both animal and intellectual, which enable her to fulfill the duties of a mother in the best possible manner. Hence, education may be rendered available in directing, harmonizing, and developing that which she naturally possesses. All mothers are, however, not organized alike, hence are not equally capable of educating the young in all respects. Let us imagine one good lady of a household with a large brain, sharp features, narrow face and chin, possessed of great nervous susceptibility, fine bone, clear skin, silky hair, light figure, and sinewy muscle. Such a combination of temperaments would incline to mental exercises, and the possessor, though quite capable of comprehending all the principles involved in the various relations of life, would find it extremely difficult to adapt herself to them personally in carrying them out. Let us suppose her to be the mother of a small family. How will her educational labors be influenced by her organism. She will be exceedingly precise in all matters of behavior and taste, morals, honor, affection, industry, intellectual acquirements, and other mental habits, as the details of her development more particularly indicate. Over these departments she will desire to exercise much personal supervision, and even delight in engaging in the labor herself. But the nursery department of her maternal duties she will be liable to overlook or neglect for want of adaptation. She will be glad to escape the sloppy mess of the semi-daily bath, which will be left to the attendants or something less arduous be substituted. She will find it immense trouble to get up in the night and apply the wet bandage, or wet sheet, or cold bath, and will have recourse to the advice of "our doctor," who is such a nice gentlemanly man, that he entirely takes that heavy item of her maternal cares from off her hands.

Her theory of diet and digestion will look beautiful on paper, but she will not be apt in selecting appropriate food for her children, or in observing the effect of various foods. She will be very particular in making her girls sit upright, with dress and hair arranged in the most precise fashion. Her little boys must not romp and play so noisily—such pastimes are vulgar and rude. They must deport themselves like gentlemen. And so she will have the satisfaction of possessing a genteel family with sharp noses, narrow faces, pale skins, cold hands, invisible muscles, and a poor circulation.

Now let us pay another visit. We are introduced to the lady of the house. She is a broad, stout, corpulent person, inclined to *embonpoint*, with warm affections, full base to the brain, and sharp practical intellect. Her face is round instead of being pyriform, or if it is of the latter shape, the base of the cone is downward. With

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all the educational and social advantages of her friend just described, she would make a quite different mother. She would not trouble herself with the why and wherefore of medical plans and physiological problems, nor would she have any distinct ideas as to the intellectual development of her young charge. If she was devoid of education, she would very likely be disorderly, careless, dirty, and irregular in her way of managing her affairs; her household and her children would be the victims of her peculiarities; but if her mind has been enlightened as regards the best means of performing her duties, and if she has got into the habit of putting such means into practice, she will be a most indefatigable, tender, and thorough mother. Her peculiar temperament will incline her to look after the physical welfare of her children, the bath and the wash tub will be more congenial to her nature than the piano or grammar. If her previous education has been favorable, she will be very choice in her selection of food, will abominate dirt or anti-hygienic influences, will superintend her own nursery arrangements, and allow no one to come between her and the happiness of her child. There will be in her case a remarkable adaptation of mind to perceive the physical requirements of her offspring, and she will instinctively adopt the very best means at her command. She will be deficient in power to regulate their mental developments. The manners of children brought up under such a mother will be more rough, broad, and free than those belonging to the parent previously referred to. Their sports, pastimes, and tendencies will be more of the physical and jocund nature. Their moral predilections will be genuine and strong, yet not so polished and circumscribed as though the mother had been more mentally inclined. The intellect will be developed in the children of such a mother in a practical direction. They will be taught to see, do, and remember phenomena and actions; they will be very active and observant, but not disposed to be literary, artistic, philosophical, or imaginative; they will, in all likelihood, be remarkably straightforward and outspoken, and their manners will be of that free nature which will be considered by some as approaching to rudeness. Such a mother will lay a good physical foundation in the organization of her children, but they will require the addition of other educational influences, of a connected and regular description, as they grow up in years. Between these two extremes of organization there are all shades of combination, which will partake of either class according to the proportions of the physical or mental conditions which they may contain. Harmony of organization will, under all circumstances, be best for the mother as giving her an evenly consciousness of all relations which have a favorable or unfavorable influence upon her children, and fitting her to endow them with a natural balance of physiology.

Having secured an evenly organized and healthy mother, the next most important condition is that of education. We are all liable to view life in its various phases in accordance with our educational impressions. In some circles of society the whole of life's duties are comprised in the acquirement and practice of a few hollow, showy social rites, leaving the welfare of the young entirely at the mercy of a few artificial institutions—medical, clerical, or legal. In other states of society the moral and religious nature has to bear upon its shoulders the whole weight of individual responsibility. Others, again, cultivate the intellect, or perfecting faculties, and in science, literature, and art think they discover the elements of supreme happiness. A very large section is devoted to the practical purposes of life, and whole families get saturated with the idea that success in business, commercial enterprise, and speculative courage are the high roads to individual success. Again, a vast proportion of mankind believe only in the gratification of the animal and the exercise of the vital functions. They live to eat, disregarding at the same time the other conditions upon which life depends. Others live in full harmony with the laws of physical existence, but disregard many of the higher relations of life, and only partially attain the objects of their efforts. Thus we see society replete with incongruities and myriad forms of individual idiosyncracies, and very partial degrees of happiness, all because of the fragmentary education in the great duties and relations of life which prevail in families. But the mother is the prime teacher of humanity, and how important then is it that her views on the development of mankind should be of the most thorough and universal nature.

The one great object of national education should be the development of woman. She should as freely as possible engage in all the practical businesses of life, and at the same time she should have her mind exercised in all the diverse forms of education which tend to enrich and perfect the mind. To reform society we would suggest another mode of administering education—an entire reversal of the present practice. That is, we would shut all the colleges and educational institutions against the male sex and freely admit the female in their

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stead. One or two generations of such culture would populate the land with an educated people. All attempts to benefit society educationally in its widest sense must be futile while the matter is kept from the mothers. But it may be asked, Would the educational instrumentalities now in existence have all the beneficial influence on the mind of woman which could be wished? We answer, No! Education as at present conducted is essentially defective; hence we see the great necessity for Hygienic schools and colleges in every city and town of the land, in which man and woman, especially woman, may be educated in the elements of human nature, and thus more perfectly adapt them to be the architects of the race.

To refer to our original proposition. No woman can happily and successfully exercise the functions of mother unless she is properly educated and developed, both mentally and physically, for the important duties which devolve upon her in that state. One important consideration should not be overlooked: every mother should possess, in a strong degree, the organ of Philoprogenitiveness. All are not equally endowed with this feeling. We have met mothers who consider the nursing of their children a positive trouble, and look with abhorrence upon the possibility of their maternal responsibilities being increased. Such women should avoid the position of a mother.

We will now briefly refer to a matter which we treated upon in our last paper: that is, every mother should be prepared, organically and circumstantially, before she undertakes the important duties of her position. It is only the widespread popular ignorance of these conditions, and the sorrows inflicted upon their offspring by such neglect, that prevents the mother's love from determining her to adhere to them at all hazards. Here, indeed, a physiological and hygienic education imparted to woman would produce returns of a thousand fold in the improved condition of society. We have at this moment deeply imprinted on our memory a melancholy spectacle of a poor woman with three children clustering around her, the eldest not being four years of age. They were all exceedingly defective and unbalanced in both body and mind, and one was partially idiotic. This is not surprising, seeing that the poor mother was not in a state of physiological preparation when she gave birth to the first child, and never had time to recuperate afterward. During all these years of almost continuous maternity, the heavy responsibilities of her household, and part of her husband's business, devolved upon her. How different is the case of those families who regulate such matters. Every four, five, or seven years, under the most auspicious circumstances, they determine on having an increase in their family, and thus by easy stages they have the pleasure of seeing rise around them two, three, or four noble representatives of their name and family, upon which they can look with unalloyed feelings of pride and love. Some step in this direction is necessary to regulate the population of the various civilized nations. Some parts of the world are becoming depopulated, while others swarm with unnumbered specimens. France is said to be unable to sustain its population as a nation, while the lower classes of Ireland seem equal to populating the whole world. Families of intelligence, education, and refinement are seen to die out, while the lower orders, like weeds in a garden, thrive in a ratio fit to suffocate the more noble productions of the social soil. These intelligent and refined families cultivate the brain exclusively at the expense of the physiology, till they are incapable of parentage; and the lower orders, though exceedingly fruitful, are, from want of development, unable to give noble organizations to their offspring. Our friends, the Shakers, seem to imply that the most exalted and spiritual members of society are above the sphere of parentage, and so would recommend all such to absent themselves from this duty and allow it to devolve upon the less favorably developed. This we conceive to be a gigantic mistake. Let the laws of physiology, marriage, and parentage be understood and applied, and then a few choice and select specimens from each couple of highly developed men and women in a nation would soon tend to obliterate the many scars that at present deform the face of society.

'CUTE.—"Now, gents," said a Yankee at dinner, "guess I'll show you somethin' that no critter in this room ever seed afore, and not a critter livin' ever will see again. D'ye bet?" The bet was made, and the Yankee took a nut off the dessert plate, and cracking it, held up the kernel between his fingers and thumb. "Now, gents, I calculate none of yer ever seed that kernal afore, and (swallowing it) I guess you'll never see it again. Please fork out."

THERE is a drawing on exhibition in Boston executed by a silk weaver in England, who, with his body paralyzed below his neck, learned to draw with remarkable skill, holding the pencil in his mouth.

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The Physiological Anatomy, Physiology, and Pathology of Man.

IX.

BY RUFUS KING BROWNE, M. D.,

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SOURCES OF LOCOMOTION OF ORGANISM.

It is said that the witty, humorous Sidney Smith, in a very sultry season, desired to lay aside his flesh and sit awhile in his bones. Had he gratified this desire, his flesh, sundered from his bones, would have sunk upon the floor, as shapeless and powerless a mass of substance as his clothes were. Its elements, however full of life, would be as totally incompetent to pursue any direction of movement common to the mass as the cooked sirloin of beef upon our table, or any inanimate thing. The skeleton furnishes the mechanical, rigid means for the movement of the tissues, to maintain the upright or inclining posture of the body; to furnish hermetical cages for the soft-solid organs and tissues; to furnish large, rigid-walled vessels in which rest these soft-solid and diffluent organic structures (as in the cases of the brain and viscera). These are the commanding purposes of the bones. Rigid and immovable, except at their jointures, the bones furnish us a lever-like arrangement, to which the muscles being attached the muscular power is applied to walk, run, lift, strain, or perform the innumerable movements and evolutions of the whole body or its limbs. No one of the organs of the entire organism could move except moved by the body, whose movement is dependent on the arrangement and rigidity of the bony framework. Moving in an environment which not only does not facilitate, but retards his advance in any direction, the organism of the bony animal must remain supine and motionless without the skeleton. The bones, therefore, serve the common purpose of movement of all the tissues and all the organs, without the least exception. Different muscles are united to the bone covering at different points along the length of bone, and also united to somewhat distant points of the structure. When traction is made at the point of union, it proceeds in the direction of the length of the muscle, and moves the bone from its supine state upward or outward. This movement of the muscles consists of a shortening of their length, and an exactly corresponding increase of their thickness. The length is slightly diminished, the breadth slightly increased. This is a brief but sufficient description of the purpose of bones. They grow as other tissues do, with the difference that everywhere their cellular elements exist in close surrounding contact with solid earthy material, densely compact, consisting of lime and other earthy particles.

It is only by means of the movements accomplished by traction of the muscles—moving bones—that the organs are able to move or glide to and fro upon each other, and this is one of the conditions of health. The contraction, for example, of the muscles between the ribs—two sets of muscles running directly across each other—carries the lower ribs frontward while they turn slightly upward, their line of advance being a small segment of a convexity turned upward. This movement straightens the diaphragm, shortening its radius, increasing its diameter. The diaphragm moves downward upon and displaces the liver, stomach, etc., and they, in their turn, displace the abdominal viscera beneath. To this movement by means of the ribs is due the change of the diaphragm, which enlarges the chest cavity, and which enables the lungs to greatly enlarge their diameter and caliber, and take in new and more breath. And to the consentaneous movement of the viscera upon each other is, in part, due the proper performance of their special functions. The passage through the liver and spleen of the viscid, flowing material within them, is greatly aided by the movements of the diaphragm, and the passage downward of the contents of the intestine is aided by the same means. The brain is held, by the vessel-shaped bottom of the cranial bones, in its place, and could not be sustained at the summit of the body by any other substances. The intestines and genital organs are likewise held or sustained in a similar way by the bones at the lower part of the trunk—the pelvic bones. In the cranium the bones form part of the walls of the blood channels. The bones of the organism, therefore, serve a common as well as, in parts of it, a special use. Their protective uses are, in fact, the least important of their uses.

THE MUSCULAR POWER.

In accord with the uses of the bones, and constituting the motive power or force of the movement of the hard structure, is the muscular. Each muscle is composed of an immense number of what are called primitive fibers, ar-

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ranged closely side by side. Each fiber consists of an extremely attenuated tubular membrane, which incloses—completely filling it—a large number of fine particles side by side, having the appearance of being arranged in rows, and between them a small quantity of muscle juice. These, called the "sarcous" elements or "sarcous" tissue, are in exact contact with each other, but are slightly displaceable in a cross direction in the act of contraction, and regain their previous relation when each contraction comes to an end. The muscles everywhere are a tissue for the purpose of contraction. As each fiber contracts, it shortens lengthwise and increases breadthwise or across. All muscular fibers can exist in two states—namely, one in which they are supine, and one in which they are contracted. From the last state they pass quickly into the first, and from that almost as quickly relax. It is well known that, in upholding our frames at any inclination, from upright to the prone or horizontal, notwithstanding we are not sensible of the expenditure of force required in the exertion, the nerves and muscles operating upon the framework must be acting in concert. But this accord is maintained in every lesser voluntary exertion, and it is by these various voluntary movements we are taught the essential harmony of muscle and nerve influence. Both, or either the muscle and nerve tissue, are equally excitable, and either is excitable through the means of the other. The nerve may be readily destroyed and the muscle remain excitable, and the exact converse.

All gymnastic power is dependent on the bone as well as muscle. The true purpose of such exercises is to organize in the muscle the celerity and ease of movement for the body, upon which is directly dependent nearly all the perfection of all the processes we have named. These exercises are not to develop weight or mass of muscle or strength, in its strict and only proper sense. In preceding eras, when muscular strength was in great part the only source of working power, this was essential. But now the innumerable machines and physically-impelled mechanical contrivances do the work of strength, an inexhaustible source and variety of mere working power or applied force.

The lifting power we may develop is therefore a futile substitute for the light celerity of the slender and quickly contracting muscles. The slow, almost at times hesitant, advance of the blood column in the veins is specifically forwarded to its inlet in the venous side of the heart by the contraction of muscles.

The development of muscle-weight and size except where it is greatly deficient, is not the great object of trained muscular effort. Neither is the measure of its mechanical working power the measure of its physiological grade. Hence the great distinction between the distinctive gymnastic training of our day and that of the old method. The one accords with the higher designs and the character of the achievements of our times. The demand for the strength embodied to do much heavy work, satisfied by the old mode, has now passed away.

THE NERVE TISSUE.

Serving a common use to the whole system and every part of its organs, distributed to every part in fine and exceedingly delicate ramifications, is the nervous tissue. This consists of the brain, the spinal cord, and their extensions and prolongations, into every part of the system, even those most distant from the brain. The brain consists of an apparently amorphous, soft-solid mass, of different shades of color in different parts. In reality, as seen by the microscope, it consists of countless myriads of soft-solid, cell-like bodies, prolonged in several directions into attenuate fibers. The latter collect in strands to proceed through a large perforation in the skull to form the spinal cord. From the spinal cord these fibers run directly downward and outward to the most distant parts of the system. These fibers are continuous throughout their length. The large bundles of them closely adjoined, and extending over a special line of direction, from still larger bundles combined in the spinal cord, proceed to various organs and the tissue of every organ. The bundles become smaller by their component fibers—several together—running away from it at every angle until they become simply a few fibers. All these fibers run to the heart of every organ without terminating. Single fibers are so small that they are sometimes no less than the one hundred thousandth of an inch, but there are always several of these running closely conjoined. These fine fibers form in organs, not terminations or endings, but fine, compound networks or plexuses, which turn backward and again pursue a return course, from various parts and in many varying directions, toward the central or greater parts of the nervous system—the cord and brain. They never terminate or come to an end, but form a circuit, proceeding from and turning back from the finest distribution to the spinal cord and brain. From the very earliest date of microscopic research down to the present these have been described as starting or arising in a cell and end-

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ing at a certain point—at, for example, on or *in* muscular fiber. But, in fact, they neither arise in or commence in a cell, as the cells of the brain are only a part of their course, there being cells everywhere in other parts of their course continuous with the substance of the fiber, nor do they end on muscle or anywhere, but form fine branchings, which have never yet been found to end, and which in several instances have been followed to a considerable distance inward, on their return from those parts most distant from the brain and spinal cord.

The nerve tissue of the organism has been divided by anatomists into two so-called systems: *i. e.*, 1. The "voluntary" or "cerebro-spinal," involving the brain and its extensions throughout the spinal column, of nerve tissue and fiber running therefrom; and 2. The "organic" or "sympathetic system," which was supposed to "preside" over the "vegetative" or involuntary functions and processes—those which proceed without requiring any exercise of volition. These latter processes were, for example, digestion, secretion, etc. But the division is only of anatomical significance. Throughout the course of the fibers of the latter system minute knot-like enlargements appear, consisting of collections of nerve cells, and from these the nerve influence was supposed to date or arise. These two systems have been thought not to be anatomically united; but however difficult it may be to trace the connection between the fibers of either, there is such a conformity and reciprocity in their influence that they can not be regarded as having, in any sense, different functions.

To the influence of nerve on muscle is attributed their contractions, and it was always supposed that this influence (whatever its exact character might be) was exerted or brought into play by some direct connection between the muscle and nerve tissue in the manner of conducting the electric force. Nerves running amid muscles were therefore accordingly considered as motor nerves. But there are few tissues in the body, where muscular fibers are not to be found, which are brought into play in the various processes. They are even found connected with the villi of the intestine, causing, during certain stages of absorption, a shortening of them, and they are found in the closest contiguity to the cuticle over the body. The nerves of the cerebro-spinal system, therefore, were divided into motor and sensitive nerves. The former were supposed to conduct from the brain, as its starting point, some influence along them to the muscle, its ending place, in obedience to which the muscle contracts and does its work. Hence anatomists have reported seeing these motor nerves terminate on the muscle, or within its membrane, amid its contractile elements. The sensitive nerves run from every portion of the sensitive tissue to the brain, and whatever event to which we were sensitive, or which made an impression on us, was supposed to be conducted or carried by these nerves to the brain.

The anatomical facts, however, are that nerve fibers neither commence nor terminate anywhere, but form an uninterrupted circuit.

In reality, however, sensibility and motion alike pertain as one quality to everything in the degree of its animal form.

The "impression" is not a thing which is taken account of by sensibility, but impressions constitute the very phenomena of sensation, presupposing in the animal the existence of the quality of sensibility. So, also, the power of motion is not a power which, like an impelling or projectile force, is generated in the brain, and traverses or is transmitted by the nerve therefrom to the muscle, impelling the muscle to act or perform its function.

But the power of motion pertains to every thing in the degree of its animal form, and animals and plants move which have no nerve tissue and no brain.

A Medical Opinion.—An unfortunate man, who had never drank water enough to warrant disease, was reduced to such a state of dropsy that a consultation of physicians was held upon his case. They agreed that tapping was necessary, and the poor patient was invited to submit to the operation, which he seemed inclined to do in spite of the entreaties of his son a boy of seven years old.

"O father, father! do not let them tap you," said the young hopeful; "do any thing, but do not let them tap you!"

"Why, my dear, it will do me good, and I shall live long in health to make you happy."

"No, father, no; you will not. There never was any thing tapped in our house that lasted longer than a week!"

Be content to attend to duties as they arise; take them as they are sent by Providence. Every moment brings its own responsibilities; and man's wisdom, in this world of sin, of sorrow, and of death, consists in cheerfully using present comforts, and diligently attending to present duties. Let the crumbs, the fragments of time, be gathered up, that nothing be lost.

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Muscle and Womanhood.

BY ELIZA ARCHARD.

If one should say: "Muscle and Manhood," it would be nothing either strange or unusual, merely an alliteration for the well recognized fact that man is an animal. For muscle and manhood run together by nature. But who ever heard of muscular womanhood? Nobody —unless, perhaps, doctors, to whom it exists, not as a reality, but only as a possibility of that good time to come after the present generation of American women will have all died out, as, indeed, they are doing rapidly—and as, indeed, they ought to do rapidly; the sooner the better for those of them who, in their willful helplessness, are already beyond the reach of hope and mercy.

"Make a sheep of yourself and the wolf will eat you," says the old German proverb. There is but one animal weak enough and timid enough to be compared to the average American woman of these times. It is to be regretted that the animal is a sheep. A sheep is weak, cowardly, helpless, and very foolish at times. So is a fashionable American lady. But the sheep does not make a virtue of its cowardly helplessness. The lady does. That is the difference. A sheep will insanely follow in the exact track of the sheep next ahead, though it break its neck down a precipice. Sheep-like, we women blindly follow the patriarch of the flock at Paris, no matter how crazy his leaps are. We have made sheep of ourselves for years, and the wolf of Ill Health is eating us up every day. And we let him devour us, body and bones, by the thousand, year after year, and year after year, rather than throw off our sheepishness, and break away, at once and for ever, from the national flock of sick women.

I remember once seeing four women try to kiss one man. (N. B. Against his will.) There had been a sportive wager made, and though the four young ladies brought their united strength to bear in endeavoring to pinion the active young gentleman, they were obliged to give up beaten. They lost the wager. The gentleman was a man of average muscle; the four girls, as ladies go, had decidedly more than the average of physical strength.

And this is what four full-grown girls amount to! But something very like the millenium will approach, before women can be made to understand that they ought to be ashamed to let one man have more strength than four women. This is the worst of it all. It is their religious conviction that the crowning glory of womankind is physical degeneracy. Their chief delight is to believe themselves born to cling to whatever is nearest, in a droopy, like the-ivy-to-the-oak way, and to be viney, and twiney, and whiney throughout. Like the ivy to the oak, exactly, if we are willing to learn any thing from nature; for, in point of fact, the ivy generally smothers the oak to death at last.

"Woman conquers by her weakness." Woman's weakness, indeed! Woman's nonsense! Woman's weakness is despisable. Weakness of any kind is a credit to nobody. How can it be? Do we admire a man more because one arm is paralyzed, or because he is blind of an eye? Is there any thing particularly lovely in the ghastly sight of a man who is starving to death? And what more claim to our admiration has a woman who, in a manner, paralyzes herself all over, and starves every drop of good, red life blood out of her body? The lovely creatures who choke the breath out of themselves, and eat chalk and pickles, and drink vinegar, may be counted by the hundred. You know them and I know them. So grounded into the very souls of women is this notion of the excellent beauty of woman's weakness, that there are those who think it isn't pretty to exert even the scanty strength they have. I know of a woman weighing two hundred solid pounds avoirdupois, who will allow her puny, contemptible little poppet of a husband, weighing scarcely one hundred, to beat her like a dog, whenever his lordship is inclined to give her a "punishing." And the poor creature simply takes refuge in woman's weakness, and meekly sheds tears for an hour or two. She deserves her whippings, she does, for being so mean spirited! She deserves it all, for not treating her liege lord to a bit of the McCoole-Jones game, and trying whether pure science can not be overcome by the force of *maul*—whether two hundred pounds can not turn and give one hundred a most unmerciful beating. Think of two hundred pounds and *woman's weakness!*

To fight to the death the idea that there is, that there can be possibly, any thing praiseworthy in physical weakness, will be at once the first duty and the hardest work of all who would elevate what is in very truth the weaker sex. I think that reformers in the field of woman's rights and duties have mostly lost sight of part of the work before them. They seem to have forgotten the fact that unless there be a two-fold development, one of body as of mind, the body will lag back, and fret and fetter the mind, so long as the mind is in the body.

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To be a mental or moral force, the human animal must first be a physical force.

Woman's want of muscle is a crying shame and a sin. In truth, this want of harmonious muscular development is the one need of the whole American nation. We all need it more than any thing else, but the race of American women is dying out for want of it. Women sacrifice health, usefulness, happiness, life even, to the one insane desire for "delicate beauty." Delicate beauty may do for heaven, but something more than that is wanted to bring up children on in this world. You want bone and blood and muscle to do your duty here below. Women are asking loudly and more loudly for the rights of human beings. Sometimes when one sees their puniness, their voluntary helplessness, one is almost angry enough to doubt whether these feeble, half-bodied creatures have any business with the rights of whole human beings. When women make a boast of their utter incapacity to take care of themselves, it is hard to see, sometimes, what possible rights they ought to have. And indeed this very argument is the great gun of those who oppose Woman's Rights, so called. Woman is physically too weak, they say, to discharge the duties which the obtaining of political and social rights would involve. Shame to the vanity and laziness which have brought this reproach upon us! Perhaps, some day, in pity to our weakness, masculine legislators may give us the right to vote, but a woman should be ashamed to accept it thus. The half-contemptuous boon which is conceded to weakness because it is not strong enough to do any harm, is a very different thing from the glorious right which, like the Magna Charta, is granted because it can not be withheld. Obtaining the right of suffrage as a pitiful alms, flung to us dog-and-bone-like, is a very different thing from rising in royal strength of body and soul and demanding that right.

Oh, I wish it could be thundered into the ears of American women, with the force of a forty-pounder, that weakness is *not* respectable—that it is for ever and ever contemptible! Of a truth, we scarcely deserve the right to vote, until the United States is something else than an hospital for lady invalids.

The women of America are physically the weakest women in the world, and seem pleased to be told of it. Moreover, the immediate cause of nine-tenths of all their sickness and invalidism is nothing else than the want of healthy muscular exercise. A certain good old doctor hereabouts is in the habit of saying to nineteen out of every twenty among his fashionable lady-patients:

"You don't take exercise enough. Gentle housework will be the best thing for you."

But for all the "gentle housework" they ever do, the good old doctor might save his breath.

"Bless me! Do you mean to say those girls all have false teeth?" exclaimed a merry Englishman, recently, as eight laughing, chatting fashionable beauties came and took seats in a car near him. So our merry Englishman made some sly observations, and found that out of the eight handsome girls there were *two* whose teeth were natural. Now what was the reason of all this? An intelligent dentist answered the question the other day:

"You women have so much poorer teeth than men on account of your sedentary habits."

There it comes, again. Sedentary habits! Women sacrifice even their very teeth to "woman's weakness." They give up their teeth, their hair, their muscle, their rich blood, their complexions, their health and happiness; they waste themselves away to skin and bone, and very little of that, all that they may be merely "delicate." There is more humbug about a modern fashionable lady than there is to a Gift Enterprise. So that a beautiful woman, be-padded and be-painted, with her head covered with false hair, and her mouth full of artificial teeth, invariably sets an individual at all inclined to metaphysics to wondering how much is woman and how much is gammon. All this, too, when, to make her beauty real, instead of artificial, but one thing would have been needed—good healthy physical exercise.

For making women invalids, next to muscle-wasting idleness, is muscle-wasting occupation. Unfortunately all the occupations in which American women who earn their own living are engaged are of that class. With a business notion of being what they call genteel, they leave honest, healthy household labor and gardening to the Biddys and Katrinas, and become dyspeptic and consumptive over teaching, sewing, and, more recently, retailing light dry goods. If they only *could* see their folly and nonsense! The good kitchen girl is infinitely healthier and better paid, even, when it comes to that, than the sewing girl. Whatever is honest and healthy can not but be honorable, and the kitchen girl may and should be just as intelligent as the schoolteacher. Household labor is in every way preferable to stitching or selling buttons, and physical health and cheerfulness of mind is a rare boon to receive in exchange for a bit of

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miserable, starved gentility. The rosy-cheeked, merry cook or laundress, with a healthy body and a clear conscience, is a hundred times happier than her sickly, stitching, and oftentimes hungry sister, and a thousand times better off than that poor, drudging, worried, careworn, most tormented of all created beings, the "assistant" underling in a large school. Teaching, as our public schools are at present organized, is nothing less than murder to hundreds of women every year. Five years, or ten at most, of conscientious service as a schoolteacher will bring any woman of ordinary constitution to her grave. Oh, I have seen it too many times to hope that my statement can be contradicted! It is unspeakably saddening to watch them—noble, beautiful girls—fading, fading out, month after month, and by and by the heavy load drops of itself, and you see another name among the deaths next week—that is all!

What can we do? We can take more bodily exercise. That will save our lives and preserve our good temper. That will check the current of fashionable invalidism. Not that alone, but that mainly.

How shall we take it? That depends upon circumstances. Exercise which is healthy and at the same time useful is, of course, the best. And open-air exercise is always to be put down first best. For straightening crooked spines; for strengthening weak organs; for filling out wasted muscle; for filling the arteries with rich, warm, bright blood; for clearing up sallow complexions; for killing hysterics and curing nerves; for making a splendid animal out of you, instead of the skeleton on wires which you are and have been, nothing is better than what is commonly called gardening—real digging in the dirt; for, Antæus-like, we still draw strength from Mother Earth. So dig in the dirt. Wear gloves, if you like. But don't wear a corset. Neither heavy, draggling skirts. Raise vegetables, if you need them; if not, raise flowers—rare, beautiful, wonderful flowers, and gladden your heart and home every day with the precious sight of them. Decorate your church with them on Sunday, and your children's schoolhouse through the week. You could never imagine all the sweet, refining influences of flowers.

But if you live in rooms in a city, and have no garden, what then? Then ventilate these same rooms plentifully, and try your hand at good, honest old housework. There is hardly any thing like it. Wash your windows, scrub your steps, and make your own bread. It does not matter particularly what exercise you take, so that only you exercise all your muscles in pure air. Whatever combines the useful with the healthful is good exercise—never fear.

But suppose you must be engaged all day at something else, that it is not convenient, or that you are too lazy or too proud to do either gardening or household work? Then acquaint yourself at once with a good system of gymnastics, and put your knowledge into practical application. But don't dress yourself in a fanciful suit and ride to a fashionable gymnasium once a week—to flirt. Don't do that. It will improve neither your health, your manners, nor your morals. But throw open the windows at home, in the empty rooms of the building wherein you work, in your schoolhouse, wherever you happen to be, and use your dumb bells and practice your exercises as though your life depended upon them—which it verily does. And be sure you have your clothing loose enough to let every muscle move freely. Keep your exercises up faithfully, and in a month or six weeks you will feel elastic enough to fly. Ladies' gymnasiums, near at hand, where clerk*esses*, sewing girls, lady teachers, and all women whose occupations are sedentary, might stop on their way to and from work, or run in for a few minutes at any time, to exercise their muscles, would be a rare blessing in every town and city—for the world is mortally tired of these sickly, half-vitalized women.

Do not misunderstand that it is considered desirable to make prize-fighters or railroad laborers of women. We would not, if we could. Women are by nature physically somewhat weaker than men. God made them so, and that is reason sufficient why it should be so. But men and women are animals, and it is scarcely probable that there is more difference between them naturally than between the royal tiger and the lithe, beautiful tigress, or between the two sexes of any other animal. The probabilities are that He did not create one man with as much strength as a dozen women.

But American women mostly have the impertinence to attempt to improve upon the God who made them. He gave woman health, strength, and beauty to start on, but He did not make her "delicate" particularly. So she deliberately bleaches all the health, strength, and beauty out of her life, and makes herself "delicate." The world is a-weary of so many delicate women. It wants healthy women!

A healthy woman! I never saw one in my life. And I would rather look at a healthy woman five minutes than take a peep into Paradise. What a magnificent human being she would be! What light and joy and sparkle

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would go with her all day long. How beautiful, how sunny-spirited would she not be! It makes one's heart ache with longing to be well, at the mere imagining of her, at the mere thought of her queenly arm, which could control a frenzied horse or hold a scepter with equal ease; her elastic foot, which could climb Mount Blanc, if need be; her courage, purity, and nobleness. America is languishing, dying to catch the echo of her footfall, coming in all the beauty and glory of a perfect body, which is a living temple, as God gave it to her.

Letters to Ladies.

BY MRS. R. B. GLEASON, M. D.

SLEEP—CONTINUED.

"MAN'S rich restorative, his balmy bath,
That supples, lubricates, and keeps in play
The various movements of that nice machine
Which seeks such frequent periods of repair."

LADIES—When we are weary in body or brain, whether worn by manual or mental labor, sleep is a *safe* and sure panacea. Not the sleep which drunkenness, narcotics, and cordials bring, but such as nature gives to those who invite and accept her gifts. The wise man has well described the various kinds of sleep. So of him who walks in wisdom's way he says: "When thou liest down thou shalt not be afraid; yea, and thy sleep shall be sweet." Of the sluggard: "Yet a little sleep, a little slumber, a little folding of the hands to sleep." Again: "The sleep of the laboring man is sweet, whether he eat little or much; but the abundance of the rich will not suffer him to sleep."

How often have we all, when excited by joy or sorrow, felt the truth and beauty of these words: "I sleep, but my heart waketh." Sleep is sometimes seasoned by the sweet sense that the beloved are near, and sometimes with the sad sense of separation. When looking on the placid face of a sleeping infant, where smiles play so sweetly, we may easily fancy angels are whispering in its ears. The sleeping sufferer has suppressed anguish written on the brow.

There is the dead sleep which dissipation induces, the sluggish state which a full stomach and a lazy head invites. Then, too, the sighing sleep, which comes tardily, but at last, to the grief-worn spirit. And there is excess of joy, which puts to flight all desire for sleep. This goddess often says to the happy: "Burn on through midnight like the stars—ye have no need of me;" but to the wretched: "I will fold you in my mantle, and bury you in sweet oblivion till the morning comes."

In certain states of despair there lies a power which "draws down irresistibly the coverlet of sleep." The disciples slept in "the garden" just before their Lord was crucified, and the beloved Physician says of them that they were "sleeping for sorrow," and when Jesus admonished them "to watch and pray, lest they enter into temptation," he also added, as if in tender apology, "the spirit indeed is willing, but the flesh is weak." Deep sleep often brings on that peculiar depression of vital force which invites sleep.

Hope is a tonic on which we can work with little food and little rest; but despair depresses all the life energies, and hence much sleep is a messenger of mercy.

Solicitude makes us wakeful; head and heart are thinking, yearning to do something; but great sorrow proves often a sedative, so that the afflicted sleep more than usual, and then both body and brain are safe. Those who are broken in health or disturbed in mind by sorrow, disappointment, or pecuniary loss, are those who were made wakeful thereby.

The statistics of lunatic asylums show that want of sleep is the most frequent and immediate cause of insanity. As you look over the history of the inmates, and note the peculiar trials which have shattered their poor heads or hearts, you see that nothing has happened to them save what is common in the varied experiences of this life. Many a one has passed under the same rod, or a heavier one, and come out unharmed, even steadier and stronger for the chastisement. But these sad subjects, from bad habits or bad inheritance, seem to possess some peculiarity of nervous irritability; so when sleep, like a loving mother, would soothe and save them, she can not. No doubt many might have been saved by judicious care at the right time. Needful work is an excellent solace for earthly sorrow. Hence we note that those burdened by labor and care bear grief best; not that their sensibilities are less acute, not from lack of enduring love, but because weary muscles lead to sleep, Nature's balmy bath, which soothes aching hearts as well as bodily pain. As the head which aches with thinking can only be cured by sleep, so the heart which throbs with agony needs to be soothed in the same way.

I am always sorry for those disappointed in early love, who are so at ease that they need not earn either food or raiment. Nothing to do but nurse their grief, till they grow broken-

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health and bitter in spirit. I am sorry, too, for those bereaved in maturer years, whose chief responsibility is in reference to their crape. Both classes are likely to grow nervous, sleepless, often incurably sick and sad, and sometimes insane. The danger of mental wreck from sorrow or care comes more from wakefulness at night, induced thereby, than from the heaviness of the load carried by day. Those who work by night and sleep by day wear out more rapidly than others in proportion to the work they perform. For several years I have taken testimony as to this point from railroad conductors, telegraph operators, etc., and they all agree that, though they try to take all the sleep they need during the day, that it is less refreshing, and that after a few years they feel the need of a change of work, or rather of hours. As to why sleep is less sweet and sound when the sun shines, we can only say: God has set in order day and night, each for its purpose. We might suggest that light makes us sleep more lightly, that noise disturbs, and the sense that all the world is astir stirs the sleeper.

Some years since we went through the dark highways and byways of the Tamaqua coal mines, where the work is kept up the same during the twenty-four hours. For the sake of talk I said to one of the miners: "As it is just so dark here night and day, it makes no difference when you work." To which the son of Erin replied: "Indade, miss, an' a man's constitution knows the difference amazin' quick." While conversing with the superintendent of the mines on this point, he told me the Irishman was correct; that the night workmen appeared to be much more liable to sickness, and sooner failed in strength than those of the day, though they all had precisely the same work, and all came out of the mines alike, to eat and sleep.

I have no doubt that one reason why lawyers and men in public life so often resort to stimulus is to supply that sense of nervous exhaustion which comes from late hours in crowded court rooms. By alcohol they make the brain burn most brilliantly, just as it should be quieting down for a good night's rest.

Our finest lecturers are after a few months worn and haggard, though seemingly having little care and but little mental labor; for often the same lecture goes from the ocean at the east to the "father of waters" in the west, with improvised modifications. And much of this wear, often, is because that after a lecture they can not sleep till midnight, or more often till into the small hours, and some not even till day dawns. Such think intensely, feel deeply, sleep lightly, and are wrecked early. Teachers who are earnest, progressive, and devoted to the interests of their pupils—their school cares are their "night thoughts," and long evenings and little sleep are the result. Many of our most useful mental and moral workers are laid aside from their labors far too early because they do not take sleep enough. Manual labor, combined with only enough mental to give it interest, is far less exhausting to the nervous system than head-work alone. Hence those engaged in the latter require the most sleep, but seldom take it. The couch invites those weary in body, and sleep ensues; but those weary in brain are often excited, intoxicated by their intensity of thought, or think they do not need it. Many a weary head finds that it can not rest, though it tries ever so hard to do so. An abnormal activity of brain has been induced by over-exertion, so the thoughts run on, as if human machinery went by force of acquired velocity, instead of being quieted and controlled by the will.

Somebody says that "men of mind are mountains whose heads are sunned long ere the rest of earth." But these same mountains are often clouded early. Prior to this shadow we often see an activity of brain, an excitability of nervous system, combined too often with an irritability of temper, which tells the physician that trouble is near, while the prospective patient fancies his health to be as firm as ever; but all at once his system gives out—his head will not think, his stomach will not digest, he is restless and wretched. Many sad illustrations of this class have we seen in our infirmary during the last twenty years. Among these was a man, once of giant frame and iron nerve, who with proper care would have retained his vigor till fourscore years, but at half that age finds himself a poor, miserable dyspeptic, shattered in mind and body. Year after year he had worked eighteen hours out of twenty-four. He went to his mill at 3 o'clock in the morning and stayed till 10 o'clock at night, and then sat up and read for two or three hours, so that he had but four hours sleep out of the twenty-four, and often but *one*. Thus he went on year after year, maintaining that "nothing hurt him," and a perfect marvel to all around him. But at length his memory began to fail; his mind became anxious and fearful; his extremities numb, and he too timid to stay in a room alone by night or day. We found body and brain rickety beyond repair, and so passed him on to the insane asylum. Many years since we had an early-rising mania. Philosophers wrote and

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poets sung of its virtues. Had they given us, also, sermons and sonnets on the benefits of early retiring, we should then have had both sides of the question. But the result was that many concluded that time spent in sleep was wasted, provided they could so goad their energies as to keep awake. While midnight oil was consumed, the lamp of life was being exhausted when it should have been being replenished. We have all our fixed quantum of life force, of vital fluid, which we may use more or less rapidly at our will. There are various ways in which we may waste this fountain, and want of sleep is one. To retire at 9 o'clock—once the old-fashioned hour for grown folks—is now too early for children, even. Society calls us away from home just when we most need its quiet. We dress for parties just when we should "wrap the drapery of our couch about us and lie down to pleasant dreams." If our friends are worthy of our attention, let us give them our best thoughts, our sane moments—not the products of a brain exhausted by the labors of the day and then exhilarated by the dissipation of the night. The influences of these nightly gatherings are more deleterious to the young than to those matured in body.

"Late sitting up has turned her roses white;
Why went she not to bed?—because 't was night."

The bloom of many a young girl has withered in the gayety of her first winter in society; and though from summer to summer it may be for the time "restored" by a trip to the mountains, or the sea-side, or a Water Cure, it soon settles into a sickly yellow quite past "freshening up." Such may well say, as did one looking in the glass, "How *shallow* I look!" when she meant to say sallow.

Those overtaxed in early life are slow of cure, and seldom have much power of endurance. Such need more sleep, more rest, in all after years. An increased tendency to sleep is a hopeful sign in nervous invalids. Dim eyes, dull ears, and super-sensitive nerves are often improved, cured even, by this alone, where there is no organic disease.

"But how shall we wakeful ones find the way to sleep?" asks one—yes, many, I fear. First, let us remember the lesson of our youth, which said that "the day was for labor, and the night for sleep and repose." When the open fire, a pine knot, or a tallow candle were the only facilities for a nightly illumination, the temptation to late sitting up was much less than now, when the brilliancy of gas or kerosene invites us to sit up at night that we may enjoy its exhilarating splendor. I have been interested to notice how music, gay colors, beautiful pictures, and bright lights keep us wide awake. Place the same persons in a room of dim light and with but little about it to attract the eye, and they fall into easy, quiet chit-chat, and soon begin to yawn, and by mutual consent retire early, saying: "Somehow I feel sleepy to-night."

What can we say that is new on the necessity of ventilating sleeping apartments? Not any thing. But many are still afraid of night air, damp air, and cold air, forgetting that of all air that is worst which they have breathed over and over again, and so they get up with a headache and a bad taste in the mouth simply from bad air breathed during the night. If the house has none of the modern means for perfect ventilation, then have an opening in two sides of the room, or have the one window down at the top and raised at the bottom, and so secure a current of air.

Those inclined to wakefulness will find a cold drip-sheet rubbing for a minute beneficial, or a towel bath before retiring will prove a most happy and healthful anodyne. Cold foot baths for five minutes at evening are also useful. If the head is hot and the feet cold, lie down and take a head bath at seventy degrees for five minutes, having the back of the head in the water and the feet in a hot foot bath at the same time. A wet napkin around the head will often suffice. A cool sitz bath for fifteen minutes, with a cold cloth to the head and the feet in hot water, equalizes the circulation and quiets the nervous system so as to induce sleep. A full bath at ninety-eight degrees, for twenty minutes or half an hour, has often cured the most obstinate cases of sleeplessness, provided the habits of the day were healthful. A brisk walk in the open air will often quiet the head and tire the body so that sweet sleep will ensue. Then, too, let all subjects of thought, amusements, and employments for the evening be of a kind least exciting. Finally, "Somnus lets her poppies fall most plentifully on those having a cool head, an empty stomach, tired muscles, a quiet conscience, and warm feet."

ELMIRA WATER CURE, *November*, 1867.

PEOPLE often wonder why the English chose to turn out to the left hand instead of to the right, as we do. The reason is that when they came to choose, there was only one side left, and, as that was not right, they took it.

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The Earthly House.

BY PHŒBE CARY.

s are the temple of God....If any man defile the
, him will God destroy; for the temple of God is
'—CORINTHIANS, iii: 16, 17.

—in the ages that have passed away,
the fair morning of that fairest day,
n earth, in all her innocent beauty, stood
her Creator, and he called her good—
ho had weighed the planets in his hand,
dropped them in the places where they
stand,
ed a little temple white and fair,
of a workmanship so fine and rare
the star that led to Bethlehem
not the value of this wondrous gem.

, that its strength and beauty might en-
dure,
aced within, to keep it clean and pure,
ing human soul. To him he said:
s is the temple which my hands have
made
e thy dwelling place, or foul or fair,
ou shalt make it by neglect or care.
or deface this temple's sacred wall,
swift destruction on the work shall fall;
rve it perfect in its purity,
God himself shall come and dwell with
thee!"

he for whom that holy place was built,
as a palace—ah, what fearful guilt!—
, after tending it a little while,
ess, then reckless, and then wholly vile.
evil spirits came and dwelt with him;
walls decayed, and through the windows
dim
aw not this world's beauty any more,
d no good angel knocking at his door;
all his house, because of sin and crime,
bled and fell in ruin ere its time.

nen and brethren! we who live to-day
wellings made by God, though made of
clay,
e these our mortal bodies ever been
fit for him who made them pure and
clean?
as that soul in evil sunk so deep,
poiled the temple he was set to keep,
turned to wastefulness and to abuse
tastes and passions that were meant for use;
ke ourselves, that we, afraid, might cry:
rd, who destroyest the temple—is it I?"

How to Choose a Wife.

BY REV. HENRY WARD BEECHER.

WHEN, according to the Scripture word, the time came for Jacob to found a family—and that may be considered, ordinarily, as really the beginning of a man's life—his old father called him to him, and said: "Thou shalt not take a wife of the daughters of Canaan." Why did he forbid him to take a wife from among the inhabitants of Canaan? Because he knew that with the wife he would take the religion. Reared without deep religious feeling, misled and corrupted by their very religion, had he brought into his household the fairest and discreetest wife from among the Canaanites, the probability is that he would have brought in with her the cause of a long train of miserable mischiefs, and defeated the very designs of God. For it is a proverb that *a man is what his wife will let him be.* It is true that now and then there are men so strong that they control; but, after all, there is no art, nor cunning, nor device, nor strength, nor wit, nor wisdom, by which a man can keep the heat of summer or the cold of winter from sifting into the cracks of his house; and a woman's influence in the household, if she be not stormy and violent, if she be gentle, and especially if she be artful, sifts itself into a man's life as summer air or wintry frost into a house. There is nothing to resist it. One can not fight the circumambient atmosphere; and yet a man might as well attempt to put it from him, as to attempt to put from him that influence which is at his bosom; which is at his board; which is in his bed; which is in his morning; which is in his noon; which is in his night; which comes at all unwatched moments, and at all times of weakness; which has a pressure that is almost atmospheric. Old Isaac was a wise man, and he gave sound advice to his son when he said to him: "Do not go among the Canaanites to get a wife; stand to the customs and the religion of your fathers." And that might not be bad advice yet. There are a great many men who marry fancy wives, and get fancy religions with them. It is not a good thing for a person to abandon the religion of his fathers, to run after some new religion, as if it were the last fashion or the last dress pattern. And worse than all, it is a bad thing for a man to marry a wife that is godless, worldly, giddy, foolish, profitless, and with her catch the itch of an accursed religion. So Isaac said to Jacob: "Thou shalt not take a wife of the daughters of Canaan." And so I say to you.

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Canaan, now-a-days, is everywhere. Canaan is every house where there has been no family prayer: where there has been no recognition of God during the whole rearing of the household; where Mammon is the god; where pleasure is the highest idea of religion and the end of existence; where the conscience is disrobed; where selfishness is crowned and sceptered. Wherever there is a godless household, there is the land of Canaan. And there, if you will hear the voice of the Lord speaking to you, young man, he will say: "Thou shalt not take unto you a wife from the daughters of Canaan."

A man that marries a good wife has very little more to ask of the Lord until he dies; because, when the Lord makes up his mind to give a man a good wife, he makes up his mind to do every thing else that he wants. A good wife is a blessing of the Lord, and there are few blessings that he gives, now or hereafter, that are comparable with it.

The divine thought and ideal in marriage is one of the most transcendent, as the accomplishment of it is one of the most blissful, in life. And it is a thing not to be rushed into heedlessly, but to be dealt with soberly, discreetly, religiously. It is any thing but a fantasy, or a passional outburst, or a matter of calculation. It is a thing of moral judgment. It is a duty as high as that which lifts itself between you and the face of God.

After giving him this advice, Isaac blessed Jacob, and sent him away to Padan-aram to get a wife.

Now, there is another part to this history. When Esau saw that Isaac had blessed Jacob, and sent him to Padan-aram to get a wife, and forbidden him to take a wife of the daughters of Canaan, he went and married a Canaanite. He married out of spite. And there have been a great many people who have married from a rebound of passion. But I never heard of one who was glad of it afterward. I do not know what sort of a time *he* had, but you can suspect what sort of a time *she* had, after marrying under such circumstances.

This is a typical instance. It is not the only time in which a man has overslaughed his own happiness out of spite to somebody else. There is a great deal of this yet. There is a large band of disciples, I think, who ought to be called *sons of Esau*.

Two neighbors have premises adjoining. They quarrel. One builds a barn in the place most inconvenient to himself, and in a place where, under ordinary circumstances, he would not have thought of building it, on purpose to cut off his neighbor's prospect. He submits to extra labor and annoyance for ten years, just for the sake of spiting him any how!

A man shuts up a road that he himself wants, just for the sake of compelling his neighbor to go five miles around instead of three. He subjects himself to any amount of inconvenience because it will spite his neighbor that he hates.

Two men quarrel. They, in order to spite each other, follow each other up and down in society, that they may get hold of something by which to injure each other. They spend more time in making themselves mean and wicked and disagreeable for the sake of spiting each other, than would be sufficient to resist all temptations and build up honorable achievements in life. But then they like to spite each other.

Men will report damaging stories, and make themselves the common sewers of the village, for the sake of spiting somebody that they dislike. It matters not how foul or unclean the story may be, if it only hurts the person at whom it is aimed.

Sometimes families seem to be organized on this principle, and the husband is perpetually acting in such a way as to spite the wife; and she is perpetually acting in such a way as to spite him. They inconvenience themselves for the sake of spiting each other.

Political parties do the same thing. I think that for twenty years in Indiana the United States Senator was never chosen by the party in power. The other party, combining with a few in the dominant party, defeated the man of their choice. So that for twenty years the Senator that was sent, was sent for the purpose of spiting the party that sent him.

And still the same thing goes on. The same thing has been done, and I doubt not through time in many things will be done, for the sake of spiting somebody or something. It is not the law of politics—it is the law of human nature. It is the spirit of old Esau in men, which led him, when he found that his father did not want his brother to marry in Canaan, to say: "That is the reason why I will do it. I will spite my father, that has treated me so shabbily, by marrying one of the inhabitants of Canaan." That spirit flows on in ten thousand channels yet, and it is no more lovely now than it was then, although it is in very respectable places, and is looked upon with favor by many, and possibly by some that are here, who are conscious that they are acting wrongly, imprudently, and unwisely, for the sake of spiting a

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neighbor. It is the very archway in which a man acts to spite himself in the end.

They that enter into this sacred state ought to hold themselves bound to do it on the Scriptural ground—not upon a calculation of secular advantages. Happily, in our time, all the romantic sentiments revolt at the idea of a marriage connection formed for secular reasons. The public sentiment of this Christian country would deride and condemn a man who should desecrate the sanctity of life by selecting a wife for pecuniary or ambitious reasons. For, although sometimes, among the innumerable chances of life, a man acting from considerations like these may find a wife coming to him, contrary to all reasonable expectations, as a joy and blessing during the whole of his days, yet, ordinarily, such calculations result in barren and unfruitful affections, in dry and arid married lives, if not in contention, in misrule and unhappiness.

Nor should the fancy direct the selection. There can be nothing less sound or stable than that of following the fancy of one's eye. In the pleasure of the hour one may be attracted to another from reasons that constitute a strong primary influence, but that are not founded on qualities that last.

Neither should you form a marriage connection upon the mere sentiment of affection. There are many that are capable of inspiring enthusiastic affection who are not capable of sustaining a life of affection. There are many kinds of wood that kindle quick and burn out quick. There are other kinds of wood that kindle slowly, but that once on fire, keep on fire all night long. There are a great many persons who are admirably fitted to amuse for an hour or two, but who are utterly unfitted for the closer intimacy of a voyage, or for the counsels, cares, and responsibilities of that great internal conflict of life which is carried on in the family. Therefore, when a man would found a household, which is the beginning of his own organized life, it ought to be done on moral grounds; and no person, it seems to me, should take a step except with the full advisement, not only of conscience, but of religious feeling. And one that is selected from good judgment, from conscience, and from moral considerations; one that is selected on account of the depth and breadth of a true moral life, as well as for other reasons, will be apt to make a household blessed.

And in this matter you must recollect that natural traits are more powerful than artificial ones. A person may have an excellent experience in religion, and yet make a very poor wife.

When my venerable old President, Dr. Humphrey, was lecturing once, in college, he said: "In selecting your partners for life, first choose persons of naturally good dispositions—persons that are naturally cheerful and gentle. You will, perhaps, be surprised," he added, "to hear a minister of the Gospel put cheerfulness and gentleness before piety; but I am of the opinion of Baxter, who said that the grace of God could live with persons that he could not." Whatever may have been done by piety, whatever susceptibility there may be of religious emotion, the foundations of disposition should be natural. And when the foundation is so, there will come in a greater measure of fancy, of affection, of sentiment; and then will come in, too, interest. They that marry for interest, without regard to moral considerations, usually lose even that; but they that select from moral considerations, broadly and deeply, gain first the moral ends that they seek, and then, through these, other ends which they do not seek—affection, admiration, fancy, and frequently thrift itself. "Seek first the kingdom of God and his righteousness, and all these things shall be added unto you," is just as true of marriage as of general conduct. A man that begins at the foundation of things, and in every part of his life aims at that which is deepest in religious aspects and in moral relations, aims at every thing else beside, though he may not be conscious of doing it.

So, if there be any children of Christian parents who are disposed to take the daughters of Canaan for wives, let me say to him, the advice of the old patriarch Isaac is good, when he says: "Thou shalt not take to thyself a wife of the daughters of Canaan. Go back to the household of thy fathers. Go to the religion in which you have been brought up." It is not wise to mix religions; and any man who marries a wife of a totally different faith from his own, thinking that he can bend her afterward, has little idea of the temper of a woman. As a general rule, one had better marry according to the religion and customs and usages to which he is accustomed. Many a man that was brought up on a low scale has married above himself in society, and has been made unhappy all his life by his unmatched, ill-mated position. Such a union now and then may prosper, but as a general rule it is better to go back to the land of your fathers, and take a companion from among those of the same faith, the same social standing, the same occupations, and the same ideas as your own. Then there will be promise of happiness.

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Gymnastics in Colleges.

The following interesting letter is from F. G. Welch, Professor of Gymnastics in Yale and Dartmouth Colleges:

YALE COLLEGE, New Haven, Conn., *Oct.* 8, 1867.

DR. M. L. HOLBROOK—*My Dear Sir:* In pursuance to a friendly request made by you last summer, while rusticating among the mountains, that I would write an article on "Physical Culture in Colleges," I will now attempt to do so, and if I succeed in producing any thing readable, or profitable to the readers of THE HERALD, I shall feel gratified.

The public mind now seems ready to look with favor on any thing pertaining to this important branch of education, and I hail it with joy as a sign of progress in the right direction.

I have for the past two years been instructor in the department of Physical Culture in Yale College, and acted in a like capacity in Dartmouth College, since the completion of the splendid gymnasium erected there by the munificence of George H. Bissell, Esq., of your city.

All seem ready to admit now that no educational institution, of whatever kind, is complete without some means of physical culture. Its success has been marked wherever it has been attempted, and all schools of any note are rapidly adding their gymnastic halls, because they can not get along without them. I fully concur in your late prophecy in THE HERALD, that any school without its gymnastic hall would in a few years become obsolete. Note its great success in Amherst and Dartmouth Colleges, in both of which it is a requirement, and is attended to with more profit and interest than any studies of the curriculum. For ladies' schools, the well known school of Dr. Dio Lewis, which has met with a success never before equaled. The three flourishing schools of the well-known educator, Hiram Orcutt, Esq.—the Tilden Seminary in West Lebanon, N. H.; Glenwood Seminary, West Brattleboro', Vt., and Gorham Seminary in Gorham, Me. In mixed schools, the Adelphi Academy of Brooklyn, under the excellent management of Messrs. Lockwood & Ellenwood, and many others might be mentioned.

What, more than any thing else, has given this great success but the introduction of physical culture! I do not know of a school where it has been introduced but that it has been promotive of health, scholarship, happiness, renewed vigor in body and mind, and a great increase in numbers. Properly carried on, it can but enhance the interests of education everywhere, and failure is almost impossible.

I use both systems—the "light," known as the "Dio Lewis System or Musical Gymnastics," and the "heavy"—the use of all the apparatus pertaining to the gymnasium.

For ladies' schools the "light" is, of course, preferable. For mixed schools the "light" should be made paramount, and a little "heavy" introduced, such as the parallel bars, the horizontal bar, spring board, rings, swing, clubs, and bells. Where the "light" is used alone, all that is requisite is a hall, teacher, and music; each person will furnish him or herself with a set of apparatus—viz., one wand, one ring, one pair of dumb bells, all costing only a trifle, and you are ready to commence.

In colleges both should be used. Some will desire and need one more than the other. All will practice the "light" with profit and interest. Some prefer and need the "heavy."

If but one kind can be used, the "light" should by all means have precedence, especially in young ladies' and mixed schools. It is less expensive; free from harm or danger; sufficient to promote and maintain health; more interesting; all can practice it with profit—the weakest and strongest; it is more relaxing, invigorating, and exhilarating; makes the blood circulate freely and equally; gives ease, self-possession, grace, and a ready use of all the muscles. With a good teacher and good music these exercises can never become wearisome. I am of the firm conviction that it will work better where it is made a requirement than where it is voluntary. It will not become tedious nor be a burden. Custom will soon render it delightful. The great success of Amherst and Dartmouth Colleges speaks louder than any words of mine can. Where the light gymnastics are practiced, and it is possible, the sexes should practice together. Regularity and class system should be observed. A roomy and well-ventilated hall is desirable; a good teacher, who understands his business, both practically and theoretically.

Many schools and younger colleges are deterred from having the means of exercise because of the great expense, referring to Harvard, Yale, or Dartmouth. This need not be a barrier; sufficient means of exercise may be secured for a very small expense.

It would be easy to put $50,000 in a gymnasium, but by no means necessary. Where money is plenty, and there is no better use for it, it may be well to have costly architecture and extensive apparatus; but where means are limited it is very easy to study economy. If

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ere is a hall, a few hundred dollars will sup-
y it with all that is necessary; even one hun-
ed will do much good.

A college or school gymnasium need not be
pplied with all that a city gymnasium has,
here persons train for the theaters and circuses,
d learn to perform all kinds of useless gyra-
ns and dangerous feats.

"Want of time" is another objection made by
ne. This is a very short-sighted objection,
wherever regular, systematic exercise is in-
oduced it must *manufacture* time. Indeed, I
ink such things as tight rope, slack rope, fly-
g trapeze, and all kinds of aerial apparatus,
ould be discarded from a school or college
mnasium; they are dangerous, and of little
e except to clowns and circus performers.

The double parallel bars, horse, spools, and
nd bag are little used. When I have been
nsulted as to what were necessary, and what
e best things with which to supply a gymna-
m, I have named respectively: Parallel bars,
ing board, rowing weights, spirometer, In-
an clubs, single and side rings, swing, perpen-
ular bars, horizontal bar, hand weights, hor-
ntal and oblique ladder. The lifting ma-
ine, boxing, and running, prudently used, are
very good.

The best time for exercise, is in the middle of
e forenoon, or toward evening; if at other
nes—at noon, or in the evening—it should not
continued up to the immediate time of eat-
g, or retiring, and should be more moderate.
should never come just after a meal.

Exercise *daily* if you can; if this is not con-
nient, two or three times a week will accom-
sh much good.

Observe system, and regularity: Exercise with
e or more companions if you can, as it will
atly enhance interest and progress. Class
tem is better still.

Avoid abrupt transitions; avoid draughts of
, and too violent, excessive, or too long con-
ued exercise; you defeat the object if you ex-
ise to exhaustion; cease when you feel a
asant fatigue.

Exercise should be pleasant and agreeable, so
to relax the mind. It is easy to manufacture
interest and this is especially awakened by
scious improvement; it is desirable, there-
e, to see to it that progress is made in spite of
asional discouragement.

Exercise with care and caution, commencing
h the lighter and elementary exercises.

On each occasion of taking exercise, begin
ntly, and gradually increase its vigorous ef-
ts, and diminish gradually to the end.

Economize breath; keep the mouth closed. Give as much exercise to lungs and vital parts as possible, as their vigorous training will do more good than the exercise of all other parts of the body. Use the *spirometer* on entering and leaving the gymnasium. An equal distribution of exercise to the different parts of the body will prove more interesting and beneficial, and give greater powers of endurance.

Dress should be light and easy, so as not to impede the movements of the body; nothing should be carried in the pockets.

Vary the exercises frequently, so as to call into action various sets of muscles. Strengthen the weaker parts. Avoid extremes and excesses; live simply, abstain from the use of stimulants and medicine. Wash the whole body daily in soap and water that the skin may be kept soft and clean, and thoroughly perform its work.

It is somewhat difficult to lay down minute rules, as different persons desire and require a different regimen. A few hints regarding the use of each set of apparatus may prove of use to some.

As a good incipient exercise, let the body through the perpendicular bars 50 times; hands level with shoulders, feet at right angles, touching foot of bars; going forward, keep the body straight; going back, bend in small of back as much as possible; work slowly.

Horizontal Ladder: Walk across with hands, skipping one, two, or three rounds; catch in center of round, keep feet close, legs straight, hands drop to side each time. Jump across, both hands, same way. Draw up to the chin on end round as many times as possible—palms toward face.

Spring Board: Good as horseback riding; jump lightly on one foot (ball of foot) 10 times, other same; alternately and simultaneously, each 50 times. Forward and back 50 times; passing feet 50 times; sidewise 50 times. Jump as high in the air as possible, lighting on both feet; continue as long as agreeable. Use spring board daily; it is very profitable, especially for persons of sedentary habits.

Side Rings: Simple and interesting; good for grip. In going across, observe same directions with regard to feet, legs, and hands, as on horizontal ladder; let body turn half way round each time of letting go the ring.

Rowing Weights: Profitable, as they exercise all muscles of the body; keep the mouth closed and head erect; breathe after each stroke. Commence with light weight, gradually increasing to heavier; and also in number of times of pulling.

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Hand Weights: Valuable for back, legs, shoulder muscles, and flexors; use variety in these; occasionally put your back to the weights as well as the face; also put the feet in the handles, for the strengthening of the legs.

The Lifting Machine gives condensed exercise; if you have but a few minutes in which to work, use this. It is valuable if prudently used, but great caution is necessary; adjust the handles according to size of person; put the heels as near together as possible; hips forward, chest out, shoulders back, head erect, knees bent; straighten the body and lift very slowly. Just as you lift inflate the lungs *full*. Commence with very light weights and let the increase be very gradual.

Spirometer: Very beneficial; it strengthens and increases the lungs and chest; deepens the voice, and makes it purer; improves respiration, purifies the blood. Use it frequently.

Single Rings: Very good for back, shoulders, flexors, arms; turn over and back several times at half arm; the same with stiff arms and legs; get into the rings with hands far over; describe swaying circle with the feet on the floor.

The Indian Clubs afford a great variety of very useful and graceful movements, strengthening the wrists and fingers, and giving fullness to the chest, shoulders and back, muscles, etc. It will be well to ask more particular directions in their use from the instructor.

Boxing, when free from rowdyism and vulgarity, is one of the most interesting and exhilarating exercises to the mind and profitable to the body; employing every limb and muscle; giving at the same time readiness of hand, quickness of eye, presence of mind, courage, independence, confidence, while it tests and improves the patience and endurance. It teaches how to use the weapons which nature has given, and tends to do away with all others.

Running: A capital exercise, very beneficial to the whole system. It dilates, strengthens, and increases the size of the lungs; expands the chest, improves respiration; makes the blood circulate freely and purifies it, and opens the pores. While running, keep the mouth closed, the head erect, the shoulders far back, the chest out, the fists tightly clenched and placed high on the chest with knuckles upward, elbows high and far back.

Commence with a slow walk; gradually quicken the pace to a slow run, then a rapid run, and gradually diminish speed in the same way. Practice often, increasing the distance each time.

Systematic exercise is necessary for the best mental, as well as the best physical condition, and the gymnasium, with its varied apparatus in good order, furnishes all the means requisite for securing such exercise.

You so often and so ably advocate the good effects of exercise in THE HERALD that it would seem hardly proper for me to say much. I will add a few things—to this already too lengthy article—some of which are not new. It is a necessity; we do not more than half live without it; it is promotive of good health, sound digestion, good appetite, sweet sleep; it is a most effectual medicine, tending to do away with all others. It rounds and hardens the muscles; strengthens every part of the system; gives power of endurance. It invigorates the mind, and renders it more active and efficient in all its operations. It may easily be made interesting. It consumes the surplus spirits which young people have, and which, if not got rid of in a legitimate way, may in "ways of mischief." It will add years of happiness to a life of usefulness, and one who exercises while preparing his mind for usefulness will not break down just when he gets ready to use his mind.

Exercise is one of the great natural agents which will enable us to reach that state of physical, mental, and moral perfection to which we are surely tending. Physical, mental, and moral health are closely allied. Physical inaction induces mental sluggishness, while bodily exercise quickens intellectual action and promotes happy feelings. To preserve health we must exercise. Be our aims what they may—if we would succeed, if we would become good students, if we would enjoy life, if we would do good, if we would become rich, if we would attain any kind of eminence or greatness—we must preserve health first. Is not the body worth all the care and labor we may bestow upon it? Is it not the temple of the soul? The intellect is naught without it. Other things being equal, the greater the capacity, the power, the strength, the endurance of the body, the same will be true of the mind.

It needs to be rung in the ears of every educator, as with the peal of a trumpet, that the body can not be neglected with impunity, and that only in its vigorous exercise and expansion, as well as in the development, culture, and equipment of the intellect, and the enriching and purifying of the heart, can the world have "assurance of a man." No school or college, with any pretension to be level with the spirit of the age, ought to proceed on the old system of dragging the intellect to satiety with knowledge, and leaving the physical and moral powers compar-

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y uncared for, since only as all the capac- are harmoniously unfolded, can any one m attain its maximum of strength, useful- and happiness.

ve the honor to be, my dear sir,

Yours, with the highest regard,

F. G. WELCH.

erted Alimentiveness—Its Remedy.

BY JAMES COULTER LAYARD.

E eating propensity is the most difficult to rn properly, and when once perverted more ult to restore to normal conditions than any . If long depraved it gets almost beyond ol and becomes well nigh unmanageable. Fowler, in "Physiology, Animal and Men- says—we quote from memory and may not the exact words, but the sentiment is cor-

"He who can govern a depraved appetite narch to the stake."

he reason why the eating propensity is difficult to control than any other can be ily explained. It is much more difficult in y things to be temperate than it is to be en- y abstinent. It is more difficult, for instance, a moderate drinker, than it is to be a *tee- er*. Dr. Johnson, referring to his own king habits, said: "Sir, I can abstain, but n't be moderate." So it is with eating; ons can be found with heroism sufficient to ire protracted fasting, refusing food entirely lays together, should health or other circum- ces seem to demand it, yet who can not go to table two or three times a day without being ty of a surfeit. So it is, too, with all the ensities, they are all amenable to the same ; entire abstinence can be practiced in most s without much difficulty, but to be temper- in all things according to the apostolic in- tion, is one of the things most difficult of mplishment, perhaps, in the whole round of al duties. An appetite or a passion grows what it feeds on, the more you indulge it the e it wants to be indulged, but once indul- ce is given over entirely its clamors after a cease. Almost any of the propensities can onquered by complete and entire abstinence a its indulgence. It requires some firmness he beginning, but after that the victory is paratively easy. The appetite for food igh, is one which, in the nature of things, not be subjected to this treatment. That t be indulged to some extent, however mod- tely, every day of our lives, in order to sup- life. Some other expedient must therefore resorted to.

We can only point out some of the more palpable errors in our dietary habits, errors which are almost universal among us as a people, and to which the perversion of appetite and its consequences are, in a large measure, due, and the avoidance of which must be the first step in any real progress in the right direction.

We eat of improper food, we eat too much of it, we eat too frequently, and we eat too fast. Some of us are born with depraved appetites. Where this is the case, the evil can not be wholly remedied by any means that we know of; but much can be done to restrain the propensity and keep it within due bounds. To meet with any degree of success, however, we must begin at the beginning.

For the first year of its life, or until the temporary teeth make their appearance, the infant should receive no nourishment but that which is derived from the maternal breast, and the youngest child should be fed with as much regularity as an adult, and not too often. Six times daily for the first three months, and four times a day afterward, is amply sufficient for any well-born child in ordinary good health. The comfort of the mother might, perhaps, in some instances, require more frequent nursing, but the welfare of the child never.

After this period, when other food comes to be made use of, it should be of the plainest kind, and given with the utmost regularity three times a day. Let there be no lunches between meals. And do not, for Heaven's sake, tempt your child to its ruin by holding out to it bribes in the form of something to eat for every good deed done, or for every fresh acquisition of knowledge. Not that we are opposed to bestowing rewards upon children on all proper occasions, but let the prize be of another description—a book, a picture, or a toy, any thing, in fine, which does not appeal to an instinct, which, though a necessary one, is still one of the lowest instincts of our nature; which is in most cases already too active, sometimes, as above remarked—hereditarily so, and which does not therefore need any such promptings to stimulate it to further activity. No animal food should be allowed until after puberty; its well-known stimulating effect should be avoided at this period.

In adult lift, two meals a day have been found by experience to be by all odds the best. This is sufficient for persons in most situations in life, though there may be circumstances in which a departure from the strictness of this rule might be allowed, or even advisable. The larger proportion of the professional and business commu- nity, perhaps in our cities at least, eat but two

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full meals daily. Yet the practice of deferring, as many do, the last meal, to so late an hour in the day as to create the necessity for a mid-day lunch, has the effect to neutralize in a great measure, any advantages which might arise from a well-ordered two-meal system. The old fashioned plan of three meals a day, the dinner at meridian, or soon after, is altogether preferable to any so called two-meal system which allows of a lunch in the middle of the day and the principal meal at its close.

In regard to the amount of food proper to be eaten, no precise rule can be given. This, of course, must vary with different persons of different constitutional peculiarities, and different habits of life. That most persons eat too much, many a great deal too much, we candidly believe. A much less quantity is required to sustain the human system in full health and vigor than is commonly supposed. Cornaro lived for half a century on twelve ounces of solid food and fourteen ounces of wine daily, and was well nourished thereby. According to his own testimony he was more active and vigorous than when he consumed three times that amount. He lived to be near a hundred years old. We have known his experiment to be repeated in more recent times—substituting only milk for wine—and with the best results. We would not, however, insist upon confining every one to so meager a diet.

Many plans have been suggested by physicians and others for the regulation of appetite. Among others, Dr. Dio Lewis suggests that we take on our plates just what we intend to eat, and when that is done leave the table. This plan will not always work satisfactorily. A man's eyes are almost sure to be larger than his stomach, and he will be likely to put on his plate more than enough. We can only give a few rules which shall be of general application. These are: eat regularly, eat slowly, eat of but a few kinds at a time, and these simply prepared.

We need not dwell on the advantages of regularity, insisted on so much in this article; every one is presumed to know and admit them. We say eat slowly, besides the advantages of thorough mastication, it gives one time to reflect what he is about, and to notice more particularly the amount consumed. Americans, as a general thing, bolt their food. When you eat so fast, you are in danger of getting too much before you are aware of it.

Eat of but a few kinds at one meal. When there are a great number of dishes, and you wish to take a little of each, you must take a very little indeed, or you will be betrayed into excess before you get half through the number. When food is simply prepared it is more natural, and does not so tickle the palate as when it is compounded of several ingredients, and, of course, more artificial. We also advise the disuse of condiments. These have a great agency in provoking appetite and exciting morbid cravings.

To the rules already given might be added another. Whenever in the progress of a meal you come to that stage of the proceedings when you begin to consider whether you have not had enough, whether you had better go on or stop, decide to stop. Whenever this question comes up in your mind, give your decision on the side of temperance, always. Herein alone is safety. And unless kept there by company, leave the table at once. "A man never regrets having eaten too little."

Those only who are temperate can fully appreciate the advantages of moderation in diet—the clear head, the unoppressed brain, and the elasticity of spirits. Grant Thornburn, the little old seedsman, who died in New York City a few years since—better known in the literary world as *Laurie Todd*—was accustomed to attribute his uniformly good health and cheerfulness to his temperance in eating, more than to any thing else. Says the Son of Sirach: "Sound sleep cometh of moderate eating; he riseth early, and his wits are with him; but the pain of watching and choler, and pangs of the belly, are with the insatiable man."

Fasting has been frequently recommended and practiced as a means of removing incipient disease, and of restoring the body to its customary healthful sensation. Howard, the celebrated philantropist, used to fast one day in the week. Franklin, for a period, did the same. Napoleon, when he felt his system unstrung, suspended his wonted repast and took exercise on horseback.

The list of distinguished names might, if necessary be lengthened. We are by no means advocates of the starvation system, under the ordinary circumstances of sound health, unless after a surfeit. If a man will overtax the energies of his stomach upon occasion, we say the best plan to get rid of the effects of such indiscretion is by fasting. Let him omit one meal, or two, or fast for an entire day, if needs be. We would not have him take food again after a debauch until the system calls pretty imperiously for nourishment, thus giving the stomach time to rest and recover its wasted energies.

THE road ambition travels is too narrow for friendship, too crooked for love, too rugged for honesty, and too dark for science.

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The Deaf and Dumb.

No. V.

BY HARVEY P. PEET, LL.D.,

CIPAL OF THE NEW YORK INSTITUTION FOR THE IN-STRUCTION OF THE DEAF AND DUMB.

IE AMERICAN SYSTEM OF INSTRUCTION.

view of the heading adopted for this num-it seems proper to explain at the outset that e is little or no essential difference in princi- though there may be considerable diversi- in practice, between the American and ich systems, and that our statements are to aken as more specially applicable to the York Institution. While the other Amer- institutions agree with us mainly in theory, e are many minor divergences on points h it is not important to specify.

That is, for deaf mutes, the best substitute speech, as a means of mental development a medium of thought, is a question that been persistently, earnestly, often acrimoni- discussed from an early period in the his- of our art. It was the main question in celebrated polemic between the eminent ders of the French and German schools, 'Epee and Heinicke, about a century ago, it is usually the views on this question that the staple of each new theory of deaf-mute cation.

he advocates of articulation, following the of Heinicke, hold that the visible and tan- e movements of the organs of speech will ply for the deaf and dumb a natural me- n of thought. But, as we have already ob- ed, these movements are far too indistinct far too difficult of acquisition for any such pose. Experience abundantly shows that f mutes from birth, however laboriously in- cted in articulation, do not acquire the fac- of thinking in those visible and tangible s which for them form articulate words.

The Abbe de l'Epee and his followers pro- ed the system of methodical signs as supply- the link assumed to be necessary between written forms of words and the ideas they resent. We have already shown that, ugh in the hands of a skillful teacher the as- iation of a sign with every word may be ful and convenient, it is not necessary to the understanding of written sentences, and the f-mute mind rejects this artificial system of ns as a spontaneous medium of thought.

The later French and American schools seek to attach the pupil's ideas directly to the visible forms of words—whether to the written forms, or to those of the manual alphabet, is not, perhaps, very material, and will, in practice, vary according to the early training and idiosyncracies of the individual.

Whichever of these three theories is embraced, the practical result, with the true deaf and dumb, will be about the same—namely, the natural language of pantomime, more or less expanded and improved,* will become the pupil's vernacular language, favorite mode of communication, and ordinary medium of thought and reasoning; and the language of words, or of a system of signs parallel to words, whether labial, by methodical signs, by the manual alphabet, or by writing, will be a foreign language, to be slowly and laboriously acquired, and used in most cases by a constant labor of translation from and into his vernacular of signs. Those who are gifted with superior mental power and activity, especially if they are much in the way of practice in writing or spelling on the fingers, will in time read more or less fluently and write quite correctly without such a process of translation. But very few of the true deaf and dumb, on whatever system instructed, ever become able to write a composition of any length without betraying that they are writing a foreign language.

This fact that, exclusive of the class of semi-mutes, not one in a thousand of the deaf and dumb, on whatever system instructed, ever acquires that full grasp and control of the language of books which so many of the semi-mutes possess, and that the greater number only become able to read laboriously, and without a full appreciation of what they read, and to write, with frequent faults of expression and peculiarities of idiom, has been matter of remark with all who have ever been conversant with the educated deaf and dumb. Many teachers, many friends of the deaf and dumb, have considered it as proving that our systems of instruction were wrong, and hence it is that we have had so many theories; for those who are dissatisfied with actual results naturally hope to achieve better by some new method. But the new methods are found to lead still to the old results. The "winged words," cut off from speech, are no longer able to soar. We must be content to do the best that the peculiar case of the deaf and dumb admits.

We hold that to attain the greatest possible

*For even in schools where the teachers endeavor to prevent the use of signs, the deaf-mute pupils are found to use pantomime furtively among themselves.

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degree of success, and with the largest proportion of our pupils, three things are requisite: 1. The fullest and most rapid development of the pupil's faculties; 2. A ready and precise means of explaining words, phrases, and laws of construction; 3. Frequent repetitions of words and phrases both in and out of the schoolroom.

The first requisite is certainly the more important of the three, since there can be no knowledge of language and no ability to converse without a proportionate development of the faculties and stores of knowledge. And both for the first and second requisite it is obvious and indisputable that the best, in many cases the only practicable, means is found in an enlarged and improved dialect of signs. For what children need, as a means of early moral and mental development, is a natural language —one whose expressions cling to the memory by natural affinity, which they will learn, therefore, spontaneously, by mere association with those who use it, and which admits of some natural mode of expressing imitation and emotion. Such languages can be of but two kinds—a language of *articulate tones* addressed to the ear, or a language of significant gestures and expressions of the countenance addressed to the eye.

And when an improved dialect of signs has been established between the teacher and pupil, explanations of words, phrases, and the principles of construction, as well as of facts, skillfully given in that language, possess for deaf mutes a clearness and life compared to which any explanations that could be given in words are to them cold, lifeless, with difficulty intelligible, and hence make comparatively feeble impressions on the memory. It is only the language of gestures that gives to the lessons of a class of deaf mutes that life and impressiveness which, for pupils who hear, is derived from the warm utterances of the living teacher.

For the third requisite, the manual alphabet is, in general, the best instrument available to the deaf for repeating words and sentences. It is more rapid and convenient, and available at a greater distance and with much less light than either writing or labial reading. Constant practice in writing, and in reading books, is, however, obviously very important.

On the principles above set forth our system of instruction is based. We do not, as some suppose, make it an end of our labors to teach our pupils the language of signs. That would be a pure supererogation. They would learn and use that language without our teaching, and in spite even of all our opposition. B we avail ourselves of that language to its f extent, and even encourage and aid them make it more copious and precise, as a *means* instruction, of mental development, and esp ially of moral and religious training.

LANGUAGE OF SIGNS.

Of this colloquial language of signs, fe readers, unacquainted with the deaf and dum have any correct ideas. Most people can co ceive a pantomime in which the actions and ge tures of the different *dramatis personæ* may b exactly imitated; but few can imagine how th greater portion of the conversations and di courses of every-day life, referring to all ima inable objects and motives, present and absen past, present, and future, can be represented b naturally significant gestures; and when the see two deaf mutes earnestly conversing to gether in their rapid dialect of gestures, are ap to imagine that most of the signs used are a arbitrary as words.

The fact is that some of these signs are arb trary, but the greater number only abridge The descriptions of objects are abridged by sub stituting for a long pantomimic description on or two traits that are most conspicuous or mo easily represented in gestures. One who shoul for the first time see a deaf mute draw h spread fingers from the back hair of his hea down the side of his neck, might weary himse in the vain attempt to guess the meaning; bu tell him that this sign represents a *lion*, by fig uring his mane, and he will see a significance i the sign that will increase its impressiveness and fix it in the memory. Thus, an elephant i represented by indicating his trunk, a sheep by the act of shearing, a deer by its branching horns, a bird by its bill, a cart by its wheels a ship by its masts and motion on the waves, and so through an interminable list of objects.

Even the pantomimic representations of ac tions are often abridged, as when, for instance the signs for riding, dancing, or leaping are made with two of the fingers standing proxy for legs.

When they leave the region of visible ob jects, actions, and qualities, and enter the moral and intellectual world, the deaf mutes have re course to metaphor and allegory, in this pro ably renewing the process by which our spoken languages are supposed to have been built up in the infancy of our race. The equal scale is put for justice; the straight line for rectitude straightforward speech for truth; cleanness for holiness; holding fast to a support for fai

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The signs which allegorically represent the affections are referred to the heart; those which denote operations of the intellect to the forehead. By such expedients an extensive vocabulary is formed, of which each individual sign would, at the first glance, be unintelligible to a stranger, and a number made in connection as bewildering as a speech in Hebrew or Arabic. Yet, to one who begins with the elements, the language of signs seems a natural development of a few general principles; and it can certainly, more than any other language, be made self-explanatory.

TEACHING OF WORDS AND PHRASES.

Our pupils come to us, for the most part, in the densest state of ignorance—not merely ignorant of words, but destitute of many of the ideas usually expressed by words. These ideas have to be developed chiefly by conversations in signs with their teachers and fellow pupils. They, however, have been keen observers, and have already a considerable store of reminiscences of objects, qualities, actions, and of some of the relations of things. Upon this stratum of reality we lay the foundation of their education.

The first step is to teach them that certain marks on paper or on the slate represent certain objects familiar to them—for instance, a hat, a key, a dog, a cat. To this end a few familiar objects are placed before the class of beginners, their names are distinctly written on a large slate or blackboard, and a more advanced pupil is called in, who, as each written name is pointed to, selects the object it represents. The new pupils soon get interested in this exercise, and in a few days will learn a vocabulary large enough to begin with. They are very soon accustomed to write the names they learn, if not neatly, yet legibly, and the manual alphabet is taught them as not only a convenient mode of repeating words, but as a means of giving their memories a better hold of the letters, and of their order in each word. They are early taught to study *lessons*—that is, cards on which the name is printed under the picture of the object, which they commit to memory by repeating on their fingers the letters which compose it, and adding the sign of the object.

When they have learned some fifty names of familiar objects, embracing all the letters of the alphabet, they are taught to write phrases embracing an adjective and a name. Books of different colors, for example, being placed before them, they are taught to write: "A white book; a black book; a red book," etc. Other adjectives are introduced, as "long and short, large and small;" it being held that words in contrast with each other are best introduced together. Two or three verbs in the imperative are next introduced, as "Bring a pen; bring a red book; lift a chair."

The limits of an article like this will not admit of our going further into detail. We have elementary books, carefully prepared, in which the difficulties of language are arranged in that order in which experience has shown to be best adapted to deaf-mute pupils. When the pupil has gone through these books, he is prepared to take up the simpler text books prepared for children who hear.

ADVANTAGES OF USING SIGNS.

We have still a few words to say on the use of signs. We have said that it is possible to dispense with the use of signs in teaching a deaf mute, except a few simple ones at the outset. Whatever objects, qualities, and actions can be pointed out, may be, by skillfully and persistently presenting the corresponding words associated with those words. Even moral and intellectual judgments can, though with greater difficulty, be associated with the proper words by giving examples and watching opportunities. It is this watching for opportunities that makes this mode of instruction slow, tedious, and uncertain. It is, perhaps, the greatest advantage of the language of pantomime, in the hands of a master, that it *makes* them opportunities.

Let us give an example or two: Suppose it is desirable to illustrate the word *benevolence*. The teacher who is a master of the language of pantomime at once calls up before his class, with all the vividness of reality, a variety of scenes and actors, illustrative of that feeling. Or, if the lesson in hand is: "A boy fell from a tree and broke his arm," the teacher's graphic pantomime seems to make the incident actually pass before the eyes of the class. And so of a multitude of other cases. The teacher does not have to wait for opportunities of applying words or sentences to real incidents. He calls around him an ideal world, and condenses into each lesson the experience of years.

Another great advantage of this colloquial language of signs to the teacher of deaf mutes is as a test of comprehension. For a long time the teacher must depend mainly on the signs of his pupils for the assurance that his lessons have been understood.

From the important place which the language of signs holds in our system of instruction, it results that skill in that language is one of the

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most essential qualifications of an efficient and successful instructor of deaf mutes. It is by means of that language that knowledge is imparted, words explained, and moral and religious influence exercised over the pupils. And, in these respects, no other instrument can adequately supply its place.

As compared with speech, the language of signs has some advantages and some deficiencies. It has not been reduced to writing, and, notwithstanding several earnest efforts by eminent teachers to fix its elements on paper, it seems doubtful whether that will ever be satisfactorily done. Descriptions of signs in words are tedious and inexact. Hence the signs used in a given school pass only by tradition, and are continually varying, these variations not being always for the better. From this it results that the language has not made that steady advance necessary to enable it to compete with speech in copiousness, in precision, and especially in concentration of thought. Still it is capable, as it is used in our leading institutions, of expressing, with more or less circumlocution, every idea, every fact, every process of reasoning that can be expressed by words.

In some respects signs have a decided advantage over speech. It deals with the concrete much more than with the abstract—with details rather than with general views; but from its power of falling back on actual pantomime, and of presenting groups of ideas at once, it has a graphic power in its description of objects, incidents, and emotions beyond that of the most eloquent speaker. It is in this graphic power of the language of gestures that the deaf and dumb find all they can ever know of the charms of eloquence and poetry. Signs are for them the poetry of motion and expression.

It must be admitted that the constant use of signs among deaf mutes tends to intensify and to confirm certain mental peculiarities. They are—even the best educated and most highly endowed, less apt in generalization than the better educated class of those who hear and speak. Their thoughts run in somewhat different grooves. It results that they find it more difficult to understand and appreciate the force of what they read, and still more difficult to train their thoughts to that order of sequence which prevails among those who hear and speak. All this, however, is only to repeat that our languages of words must ever remain, for the true deaf and dumb, foreign languages. We must be content that the greater number of them, by diligent labor, become able to read books and newspapers understandingly, to hold all necessary communications of business by means of writing, and to share by writing and the manual alphabet a large degree of social enjoyment—certainly much larger where a well-educated deaf mute has many intelligent friends who take the pains to familiarize themselves with the manual alphabet, than in any other circumstances.

The Use of Wine.

BY REV. J. C. HOLBROOK, D. D.

It is often said, and no doubt is honestly believed by some, that were the use of wine common in this country it would greatly diminish, if not nearly annihilate, drunkenness. And it is asserted that there is far less intemperance in those lands where this beverage is made and freely used than in our own.

This last point is, however, by no means conceded by those who advocate total abstinence from all intoxicants. For, in the first place, the fact is not proved. Travelers differ very much in their statements, and many careful observers and publicists, like Mr. Delavan, declare that the very reverse is true. And it is worthy of consideration, that *all the drunkenness of the ancient Greeks was from the use of wine*, since it was abundant among them and universally used, our alcoholic drinks being then unknown. The distillation of liquors is of comparatively recent origin, and whisky, gin, and rum modern inventions.

The Greeks, both Asiatic and European, were, indeed, famous for their intemperance, so that it was proverbial, and to speak of a man as *Grecising* was the same as to call him a drunkard. Plato declares that during the progress of the *Bacchanalia*, which were the dissolute rites and ceremonies observed in honor of Bacchus, the god of wine, there was not a sober man or *woman* to be found in all Attica. This province was celebrated for the abundance and exquisite flavor of its wines.

All the drunkenness spoken of in the Scriptures, also, was from wine. Noah's, Lot's, and that against which Solomon warns his readers was from this source. "*Wine*," says he, "is a mocker, and he that is deceived thereby is not wise." And again: "Who hath woe? Who hath sorrow?" etc. "They that tarry long at the *wine*. Look not thou on the *wine*," etc. "At the last it biteth like a serpent and stingeth like an adder." And so the Apostle Paul in his Epistle to the Ephesians, v: 18, says: "Be not drunk with *wine*."

Whatever, then, may be true of some

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ng countries now, it was anciently the
t drunkenness was a fearfully prevalent
ere nothing but wine, in the form of in-
ts, was drank, at least to any consider-
ent.

in the second place, admitting for a mo-
at there is less intemperance in Italy,
and France, than in the United States,
re other reasons to be assigned for it
e greater commonness of the use of
the former than in the latter—viz.: the
tances of the people, and their tempera-
nd other general characteristics and hab-
which I will not dwell but only refer to.

in the third place, it should be consid-
those who advocate the common and
of wine, that *it is impossible to confine
t, and exclude other and stronger forms of
drinks*, where these last are known.
y will whisky, rum, and gin always be
than wine, and therefore more accessi-
e masses, but the use of wine creates a
for intoxicants that are more powerful.
alcohol in the wine that makes it de-
he narcotic and stimulating principle;
tendency of using any thing that con-
is to create an appetite for it that be-
t last irresistible, and that "grows by
feeds on," and will not, finally, be con-
h any thing less than the fiery potation
nore concentrated form of ardent spir-
procurable. The use of wine, in this
, at least, must inevitably be a stepping-
that of stronger drinks, and to intem-
. Thousands of drunkards in our coun-
e begun with wine, and in many cases
their fathers' tables, and in the social
hionable circle.

preposterous then the idea of counter-
nd rooting out intemperance by encour-
en freely to use wine, which is itself an
nt! How absurd to think of curing
ness by furnishing men abundantly
verage which was the very means of in-
ng the debasing vice into the world!
t cases of beastly intoxication on record
m wine, as in those of Noah and Lot.
e already referred to the injunction of
stle Paul: "Be not drunk with wine,
is excess." Let me call attention to
narkable form of his expression here.
eaders understand the assertion of the
to be that the "excess" spoken of resides
drunkenness. But it would be a bald
y to say that in drunkenness is excess.
nness *is* itself excess. What the Apos-
say is that the excess is in the *wine*.
"Be not drunk with wine, wherein," *i. e., in the wine*, "is excess."

The *wine* is the cause of the excess, and the use of it so inevitably tends to this result that, as Dr. Doddridge says in his note on the passage, "the enormity is represented by a strong and beautiful figure as contained *in the very liquor itself*." Beware of it, then, for excess is in it; as we should say of a poisonous serpent: "Do not take it into your bosom, for therein is agony and death!" Excess lurks *in the cup*, therefore avoid it.

But there is more in this language of the Apostle than appears at first sight. The word "excess" in our version does not convey the whole strength of meaning that is in the original Greek. The word is "*asotia*"—"wherein is *asotia*"—the literal meaning of which is, "*what can not be saved.*" In wine is destruction! It contains the elements of ruin, and whoever uses it is liable to place himself beyond the pale of salvation.

Bloomfield, in his Greek Testament, hints at this meaning when he says: "The Apostle may have played on the etymology of the word *asotia*, representing it as the state of a person whom (to use a classical saying) the Goddess of Salvation herself could not save." And he adds: "Of whose salvation do we so much despair as the drunkard's?"

How fallacious, then, the notion that there is no danger in the use of wine! How false the assertion that if wine were made a common drink there would be no drunkenness. Excess and ruin are in the wine according to the apostles, and according to experience in ancient as well as modern times. Let the wine drinkers ponder this. Young man, who art beginning to taste the fascinating cup, look into it, as you drain its contents, and behold *asotia* written there, and turn from it as you value your salvation.

It is the alcoholic principle in all kinds of intoxicating drinks, wine as well as rum, that works the ruin of those who use them for time and eternity. Alcohol is a poison, and is so classed by all standard writers, and it does its work, no matter with what other ingredients it is mixed, or in what combinations it is found. And it not only works disease and death in the body, but it unfits the man mentally for any and all the great duties of this life, and, what is far worse, disqualifies him for the great spiritual work of salvation. The Spirit of God and the spirit of alcohol are wholly antagonistic, *Asotia*, then, is in wine and strong drink, both in respect to temporal and eternal concerns!

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Society in America.

BY GEORGE W. BUNGAY.

Society in America, unlike society in Europe and elsewhere, is democratic, or, if you prefer the other word, republican, and yet we are a sovereign people. Without hereditary distinction, we claim that every man is a king and that every woman is a queen; that all pure and healthy blood is royal blood; that every man who is noble is a nobleman. Here no coronets pinch the head into littleness, and little respect is paid to the pomp of pigmy grandeur by those whose opinion is authority.

We, as individuals, as communities, as a nation, should recognize an aristocracy of intellectual and moral worth, and no other. Our patent of nobility should dome from Nature, and not from court. Since the war we have a vast number of titled men, and we are proud of them. They won their honors in the field, and they have carved their names with their true swords on the tablet of fame. But we do not call a man a major because his father was in the army. Here a man must be something himself if he would win renown. In the race for distinction, the son of the pathmaster may distance the son of the president.

All who attempt to ape the old world's aristocracy, without its wealth, leisure, and culture, run the risk of criticism more forcible than elegant or complimentary. Lord Dundreary is laughed at as much in London as in New York, a straw which shows the drift of public sentiment. Thinkers are cloyed with the dainties of half a dozen literatures, and ignore shams. English gentlemen and gentlewomen of breeding and brains are noticeable for gentleness of manner, simplicity of dress, and a lack of gilded ornamentation. It is the counterfeit article of blood that depends on starry regalia, and flashing jewelry, and haughty manners. In the language of Lowell, "the tall and sun-crowned Saul went out in search of his father's asses, and found himself a king; but your bogus aristocrat in Europe and in America goes out in search of a king and finds the other kind of animal; but he will find no true prophet to anoint him—no true poet to sing his praise." "Scratch a Russian with the point of a sword," said Napoleon, "and you will find the Tartar under the skin." The nobility of pretension is no thicker than the cuticle.

Americans make money faster than any other people under the sun, and while we have fewer great fortunes than can be found in some older nations, we have a more equal distribution of wealth, and we might have more leisure and more esthetic culture than we have were we not anxious to make more money.

Our Astors, Stewarts, and Vanderbilts are not honored with collegiate, or political, or ecclesiastical distinction because they are rich. indeed, they do not assume the airs of some of their clerks, whose salaries are insufficient to meet the demands of their extravagant habits. Wealth alone can not win titles here; we acknowledge that its accumulation is often a proof of the power of mind over matter.

Worth, not birth—merit, not money, should be the standard by which we should render our verdict. Our upper classes come of that strain of society which has battled with hardship and hard work. Our leading minds come from our colleges, from our printing offices, from our workshops, from our farms. Our aristocracy of letters can chop their own wood, shave themselves without a looking glass, and blacken their own boots. We have fops in literature as well as in dress, but they are not representative men. We have slovens of speech as well as manners, but they are not the models to be copied where common schools culminate in colleges and universities. We have spread eagles, but we look above them to the stars.

Among many other causes of the peculiar phases of society are the following: our States are peopled with men of all nationalities, and the best sentiment of these men is being developed by culture, and it is rapidly crystallizing into wholesome legislation. That which is a Marseillaise song on the lips of a Frenchman to-day, may become a statute in the Senate chamber to-morrow. Whatever is good in English, or German, or Italian laws may be embodied in our own. The several strands of various nationalities, woven into a compact cable of constitutional law, bind the union with bonds that are inseparable. We have the wisdom and the experience of the best men of modern times put into statutes for our government.

The different State interests form an additional tie. The coal of one State, the iron of another, the grass and grain of this, and the rice and cotton of that, and the gold of the other, make more than a three-fold cord—they help to make concord, and they introduce healthy elements into society.

All people are more or less influenced by the climate. It not only colors the skin, but shapes the skull, suggests the occupation, molds society, and directs to a great extent the destiny of a people. Where there is uniformity of cli-

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will be uniformity of tastes, habits, em-ents, and ideas, and social as well as in-ual stagnation, as in Asia. Here our cli- touched by every zone; we have a con- for our country, and through it run the s of every climate, breaking up the mo- that otherwise would exist. The moun- are fortresses of freedom, whose shadows chill the ardent blood of the live Amer- The dead level of the prairies does not the nature of its occupants. Our rail- nd steamboats are so many shuttles, weav- e warp of the East with the woof of the into the most perfect and beautiful pat- of civilization. We can fly, like migra- irds, from the torrid heat of the South or ezing cold of the North, and outrace the of Pestilence in his flight to his favorite . We do not all do this; I speak of hich is possible to some. While we tol- and uphold perfect freedom in religious should any legislature thrust its statutes en man and his Maker, the people would it as Moses did the tables of stone,

sum up in a sentence all I wish to say on art of my subject, our inherent love of laws; the fact that the vote of the poor counts the same as the vote of the rich that we are more and more impressed he idea that worth is higher than birth; re embrace the representatives of so many alities; that our separate State interests nate in a common bond of union; that ve a climate which yields the luxury of latitude; that our schools penetrate every of society; that our religion is uninflu- by the State, and that our leading thought law and the constitution of the State is m of thought, of speech, of conscience, person—toned with wise enactments to it the violation of human rights—make at we are.

leading idea of the Hebrews in their ment was religion; that of the Greeks e esthetic—the beautiful in art and na- in eloquence and song; that of the Ro- was law—sometimes justice with it; mod- ance makes science, and glory, and lux- r main features; England cares more for and political power than military prow- Germany dreams of philosophy and ab- rights; Italy is given to the ideal, and s the world with her music, paintings, gh art; but America, while she does not art, nor philosophy, nor wealth and , nor glory of renown, nor the esthetic of the Greeks, nor the law of the Ro- mans, nor the religion of the Hebrews, adds to all these, as her central idea, liberty.

Prison Reform.

THE question of Prison Reform has long been agitating the public mind, and has also been among various other matters claiming the attention of our Constitutional Convention. That reforms are demanded in the manner of conducting our penal institutions, and prisons especially, is generally acceded, but what changes are most desirable is a question which gives rise to a great variety of suggestions. Being in a position to witness the operation of the present system and its practical results, I may, from such a stand-point at least, suggest some modifications by way of inaugurating a more perfect system. What is termed the "Irish system" is highly commended by those who have observed its workings, and is evidently far in advance of our own. It is a system, however, into which we could not launch at once, and into which we would not, even were it practicable, without some modifications. There are, however, some steps toward it which might be advisably taken.

1. *Their classification*, according to age and criminal character. One of the greatest defects of our present system, is the bringing together all classes of criminals under one manner of treatment and discipline, from the youth who in an hour of temptation, or under pressure of circumstances, had committed his first violation of law, to the hardened criminal schooled in every vice and inured to every crime. This contact is infectious. With the strictest surveillance on the part of officials these older criminals will infect the younger in crime, and teach them lessons in wickedness. These lessons, for which in some of our cities a high tuition is paid, are here obtained under more expert professors where the tuition is free. A youth who stole a few pence, or a loaf of bread rather than beg or starve, works along side the man who is guilty of murder or highway robbery, or every crime in the long catalogue, whose moral character is sunken and depraved. Such contact can only be contaminating. Thus many go out only the more schooled in purposes and plans for wickedness. The desirableness of such a classification as will separate these classes, and at the same time present motives to well doing, suited to those who are disposed to do well, is generally acceded. It has as yet, however, received no definite form for practical adoption. Another prison is demanded by the

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increase of the number of criminals overcrowding those which we now have, and if only the largest number which should be congregated in a single prison, not exceeding six hundred, are confined in each prison, we need three new prisons instead of one. But let it be one, and for this steps have already been taken by the Legislature. This new prison instead of being designated for a section of the State the same as the others, might be designated for a class selected from the other prisons: either a place of larger freedom for those who have earned their way to it, or of greater rigor and severity for the incorrigible offenders, which, without disarranging the present system, would be a step toward inaugurating the new system of classification which already commends itself to general favor.

2. *Commutation Act.*—Practical demonstration has placed another thing beyond question, and that is the beneficial effects resulting from the workings of the "Commutation Act." The time gained by a prisoner for himself by good behavior is one of the most important considerations by which he is governed. Time is the great question with him. I hear it said often, "It is not the punishment I care about, I can stand all the punishment they choose to inflict; it is only the time I lose by it that I care for." This is the general feeling. This commutation in its workings is one of the most efficient disciplinary means connected with the prison. It throws each prisoner upon his own manhood, with something to be lost or won. Here is penalty for wrong and reward for well doing; so that he, in a measure, holds his destiny in his own hands, and none who have observed its workings can question its beneficial effects. A system involving even greater encouragement to well doing, and restraint to wrong doing, we are encouraged to suppose would work even more beneficial results. The Irish "ticket of leave" system has furnished a further confirmation of this. It might not be present policy fully to inaugurate this system, and yet for prisoners who have a long time to serve, and all who have over two or three years, to earn their release on "parole," or to be released on condition of good behavior, for the last one-half or one-third of their time, as the prison authorities in connection with a board of examiners might recommend, they to be remanded to serve their full time, irrespective of the time they have been at large, whenever the conditions of their release were not fulfilled, we are confident would work beneficially. These conditions should involve temperance, industry, and orderly walk and their being remanded should be on cause being shown before the proper authorities.

Such a policy, besides having every measure in that direction where the general system has been tried in its favor, is commended by strong considerations: 1. It gives a man a chance for a trial before the law has fully loosened its hold upon him. As far as reformation is concerned two or three years ought to be long enough in such a place. The longer terms may be necessary to deter from crime, but I am satisfied that nine-tenths of the reformations which have been effected, have been during the first one, or two or at the longest, three years imprisonment, and generally by that time, if ever, they are fit to be placed on trial of good behavior, though a longer time may be requisite in cases of long sentences, that the punishment may be proportioned to the crime. 2. This is such a restraint as many need. Leaving prison after a long imprisonment is such a largeness of freedom as is often used to bring themselves back again. With these conditions hanging over them, the authority of the law still having a lien upon them, it acts as a restraint to deter them from misconduct, and to keep them in a right way. 3. It would present a reward worth striving for during the time of their imprisonment, and worth preserving till their term of sentence expires, by which time they have a habit and character formed which may hold them when these restraints are removed. 4. This, instead of necessitating building more prisons, would lessen the number of inmates in those we have. In this manner might the punishment of wrong doing be made as it ought to be, and the reward to well doing correspondingly great. One should be as strong as the other, so that it may be apprehended that there is no disposition to wrong doing but has its punishment, and no disposition to well doing but has its reward.

J. B. SMITH, *Chaplain, Sing Sing Prison.*

TREADING ON TRAINS.—The Boston Post thinks that when a gentleman steps on that superfluous extremity of a lady's dress which gathers up odorous richness from the flagstones and pavement neither should apologize, because the lady has an undoubted right to cover an unlimited amount of space with her straggling dry goods, and the gentleman has an inalienable right to step in that space covered or uncovered. It thinks, however, that the action is more damaging to the lady's garment than to the gentleman's boot.

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THE EDITORIAL DEPARTMENT.



W YORK, DECEMBER, 1867.

WATER.

"To the days of the aged it addeth length;
To the might of the strong it addeth strength;
It freshens the heart, it brightens the sight;
'Tis like quaffing a goblet of morning light."

THE PUBLISHERS *do not hold themselves as indors-every article which may appear in* THE HERALD. *will allow the largest liberty of expression, believing by so doing this magazine will prove to be more useful acceptable to its patrons.*

Exchanges are at liberty to copy from this magazine ving due credit to THE HERALD OF HEALTH AND NAL OF PHYSICAL CULTURE.

TOPICS OF THE MONTH.

BY M. L. HOLBROOK, M. D.

INAL WORDS.—With the present num- we close the Forty-fourth Volume of THE ALD OF HEALTH AND JOURNAL OF PHYSICAL TURE. It seems hardly a month since we nenced the first number of this year's volume, uickly and pleasantly has time passed. In ing over our work for the year, there is a gled feeling of pleasure and regret, but our se has been constant and, as we believe, ful for the interest of our readers. We spared no expense to procure the productions en and women of the best talent to fill our s, and we have succeeded; for there is hardly agazine in the country whose list of con- itors is larger or better. We have printed litle but what was prepared expressly for columns, hence our subscribers have not us for what has already been served up in r papers and magazines, but for new and material. If what we have given for two rs had been printed in book form, there is gh of those articles that have a permanent value to make not less than six volumes, which would sell in market for ten or twelve dollars. If any of our readers had undertaken to buy from their authors the manuscripts from which THE HERALD is printed for one year, they would have had to pay several thousand dollars; and if they had undertaken to make the same into books, many thousand dollars additional would have been required. We mention this to show how paltry is the sum we charge for our magazine, compared with what any individual could manufacture it for himself.

But it is not so much the amount of the reading we have given, as its character, that gives us satisfaction. To reduce the amount of sickness, pain, and suffering; to teach the laws of life and health; to show how sickness and deformity may be avoided, and how health, beauty, and a true life may be secured; to inculcate good habits; to promote temperance; to instil a love for the study of nature, and particularly the natural laws of man, are what we aim to do. The world is rapidly coming to appreciate soundness, and to hate deformity. Social science is beginning to teach us that the world does not half live; that there is too much misery and too little happiness. Even lately, the Social Science Congress held in Boston brought to light the fact that simply from persistent violation of natural law, the native stock of New England is growing less and less, and, if the tide is not soon turned, the noble people who have done so much for the world's progress will eventually become extinct and their places filled by foreigners. To avert these evils we must study ourselves, must indeed make the laws of our being a principal study. The knowledge thus obtained will, rightly used, save us, and we shall then become a people fit to fulfil a noble destiny. Of those who would aid in this great work we ask co-operation in our labor. Renew your own subscription, and induce your friends to subscribe, and thus help along a cause so deserving of the support of the wise and the good.

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DEPOPULATION OF NEW ENGLAND.—A year ago we published a paper from the pen of Dr. Nathan Allen of Lowell, Mass., the object of which was to show that the native population of his State was decreasing, and that, if some remedy was not found ere long, the native population of the old New England States would become extinct. This paper was widely published throughout the country, and excited much attention; but the subject had well nigh been forgotten, when Dr. Allen comes before the public again in a very able paper, read before the American Social Science Association, in which he points out the causes of this decay of the population of Massachusetts, and suggests a remedy. As might be expected, he shows that this state of things arises largely from the physical degeneration of women. Their muscles are rarely well developed, but are soft, flabby, small, and weak; and with this there is weakness and decay of those parts of the body in which health is so necessary to make the rearing of strong children possible. The result is that while a few generations ago the average number of children to each family was nine or ten, now it is less than three, and many of these die before reaching maturity. He also shows that the practice of abortion still further diminishes the number of births by many thousands. The cause of this change for the worse in the physical constitution of woman he attributes to three things: too little muscular education, bad habits of dress, and, compared with the physical, too exclusive cultivation of the nervous system. The remedy, of course, lies in returning to a more natural state of living. The body should be developed by labor, dress should be such as not to cramp and distort the vital organs, and intellectual culture should be in harmony with physical development. We have not a full report of this paper, but gathering our ideas of it from the accounts published by the Press, it must attract much attention and cause a good deal of discussion. It seems to us, however, that there are many other causes which have led to this disastrous result beside those for which woman is at fault. There are multitudes of men who are opposed to large families, and who co-operate with woman in every endeavor to prevent increase in the size of their families. Quite generally it devolves on them to furnish the means of supporting, as well as educating and setting their children up in business. We know many fathers who argue that they are unable to furnish the means of doing all that society demands for a large family, hence they prefer small ones.

We think, too, we are correct in saying that the physical degeneracy of man is nearly or quite as great as that of woman. The average age to which she attains is as great as that of man. It is true that man has more physical power; yet, notwithstanding this, he shortens his life as much by dissipation, drinking, the use of tobacco, and sensualism, as woman does hers by want of physical culture and bad habits in dress. Nature takes away from multitudes of men the power of parentage because of their vices and sensualism. It is quite impossible for one sex to become much better or worse than the other. If woman becomes degraded physically, her children suffer in stamina or are reduced in number, and *vice versa*.

So, again, rum and tobacco have, we know, a very extensive and fatal influence in injuring the physical well-being of the race, and thereby this lessening the number of progeny. It is not a very uncommon observation that the children of a drunken parent, though they may be many in number, are deficient in vitality, or *their* children are few in number, and thus are the iniquities of the fathers visited upon the children's children.

The remedies for the evil lie not in one direction, but in several. The rising generation of both sexes must be instructed in the laws of their being. They must be early impressed with the idea that it is folly to live and impossible to prosper while contending with and opposing nature. Our whole system of education must be improved. We must educate more or less, but education must include the whole man and be harmonious. Youth must be taught to avoid all bad habits, such as animal drinking, smoking, chewing, tight lacing, sedentary habits, unbalanced brain or body development.

Life must be made more natural. We must cease to strive for that which we do not need, and to turn all of life's forces in the right direction. We spend half our strength foolishly and wastefully, and thus become prematurely old and decrepid when we should be in our prime. If every young person would become a philosopher enough to mark out a plan of life in accordance with physiological and moral laws, and strive to carry such a plan to perfection, half the work would be done. Let no amount of study be too great to secure a careful physiological education, and upon this let there be built up a great and noble character. Age

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manhood and womanhood should be the of every person; and when this is the aim, nts will seek to rear a reasonable number of lren, and to so care for them that they shall n honor and a blessing to the world.

HE SKIN OF THE HUMAN BODY.—We e an article on this subject from the pen of old friend Dr. Dio Lewis, and feeling that ould be read by all interested in themselves give it place here.

hrough the skin we have contact with the d—its heat, its cold, its dry, its moist, its th-giving and its disease-producing influ- s. Given a healthy, vigorous skin, disease are; health easy. Given a pale, bloodless , attacks of disease are frequent; health al- s uncertain.

ur climate is variable and cold. Our pro- y notions forbid any considerable exposure he skin to the air and sunshine. The skin he entire person, save the face and hands, is efore always in the dark, and becomes sen- e and sickly. The circulation of the civil- man's skin is, except under vigorous exer- always feeble, and the skin, therefore, al- s susceptible.

ut in this climate, and with our sense of fit- , we shall not be able to give our skins light air—the two great natural stimulants to ace circulation—and so we must resort to dicial measures.

NS OF SECURING A VIGOROUS CIRCULATION IN THE SKIN.

here are two means which I desire to urge old bathing and friction. A cold bath of the re person every morning on rising—with vigorous, the water being applied very cold in large quantities; with the delicate, the er being not so cold, applied scantily and ily; but in every case cold daily bathing is ost effective measure in securing a strong ulation of the skin. But a still more effect- one is found in the use of hair gloves and p on going to bed at night. Every body uld thus treat his skin every night on going ed, until the circulation is vigorous and that at sensitiveness to touch removed. In a r the thinnest and most delicate skin, which irst suffers by the application of the softest r glove, pleads for the vigorous use of the dest gloves and strap. Then colds become e, the necessity for bundling up with flannels essened, and the numberless congestions of organs within the body, which congestion is the immediate cause and effect of nearly all internal maladies, is greatly relieved.

I know an intelligent gentleman who inherited a tendency to rheumatism, and suffered till he was more than forty years old with this painful and crippling malady. Thirteen years ago I advised him to use the hair gloves and strap every night on going to bed. At first his arms and shoulders were so stiff and weak that he had to depend upon an assistant. Soon he could make the application himself. Up to this hour he has not had another attack of his old enemy. He told me the other day that he had advised more than fifty persons to use the same remedy for rheumatism, and, so far as he knew, with the most satisfactory results. I have advised many hundred persons who had been sufferers from rheumatism or bronchitis to establish a vigorous circulation of the skin by the same means, and, so far as I have been able to learn, with the happiest results.

So long as our skins must be kept in the dark and in an unnatural heat, every body should use a cold bath in the morning, and vigorous friction with hair gloves and a strap at night. This prescription will accomplish more than all the medicines in the country.

KELLEY ISLAND GRAPES.—There stands on our table a large plate of Catawba grapes which were picked from the vineyard of M. K. Holbrook, a most enterprising grape-grower on Kelley's Island. They are very delicious to the taste, and in quality far surpass any grape grown in the vicinity of New York City, or any we have found in market here. This little island, it may be known to some of our readers, lies in Lake Erie, some ten miles north of Sandusky, Ohio, and forms one of many little spots in the lake where grapes grow to a high degree of perfection. The soil is very peculiar, being compound of decomposed fossiliferous lime rock, which forms the foundation of the island, mixed with vegetable mold from decayed vegetation. Almost all the soil is so rich in carbonate of lime, that on throwing a lot of it into acid there is violent decomposition, which lasts for some minutes. There are nearly six hundred acres in grapes, and it is reported that the yield is about two tons to the acre. They sell, in quantities, for about six cents a pound, or, nicely packed and assorted, for ten cents, but the demand is not equal to the supply, and so, we are sorry to say, many of them are made into wine. We need these grapes in New York too, as food They can be transported here for two cents a pound, and will retail for twenty-five or thirty

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cents. If our friends there will send an agent here to work up a reputation for their fruit, and take pains to bring it properly before fruit buyers, the demand will be beyond their ability to supply, and thus they may be saved from the temptation to convert a delicious food into a drink that is neither healthful nor harmless.

LIEBIG'S ARTIFICIAL MILK.—For the last two years almost every paper in the country has published at least once high encomiums on the preparation of Liebig called "Artificial Milk." Our own opinion, as expressed during that time, was that the preparation would prove to be injurious. At one of the last meetings of the Academy of Medicine of Paris, Prof. Giboust expressed a decided objection to it. "It is," he says, "quite impossible to prepare an artificial milk that would answer the uses of the natural; and, where a substitute is necessary, cow's milk, slightly diluted, comes nearer to human milk than any artificial substitute."

M. Depaul, a member of the Academy, also declared that he had been experimenting with this artificial milk upon four children, all of whom perished.

We fear that so long as chemistry—a very useful science in its place—is made the basis for determining what is the natural food of man, instead of physiology, we shall have continued attempts to prepare artificial pabulum for infants, which will only prove destructive to life and health. It is claimed that this artificial preparation is a close imitation of the natural secretion, and while this may be true of its chemical analysis, yet the physiological difference is very great. In a word, it differs in color, in odor, and in taste. If chemistry can not detect any marked variation, the sense of sight, of smell, and of taste, at once detect very great differences. This preparation is manufactured in England on a large scale, and is, we believe, sold to some extent in this country. Our advice to parents is, Let it alone.

STREET MUD.—The street dirt which accumulates on the pavements of all large cities is composed largely of organic matter, which constantly undergoes chemical change, setting free poisonous gases which mix in the air and produce highly deleterious effects. It has been found on analysis that the street dust of Dublin contains 24 per cent. of organic matter. This fact shows very forcibly the great importance of keeping the streets clean. The standard of cleanliness in all towns is entirely too low. The popular ideal of a clean street should be as high as the ideal of a clean parlor or a park, and then the effort to work up to it should be constant. One method which has been suggested by scientific men of Europe for cleaning and purifying the streets of seaport towns is the use of sea water for watering and washing the pavements, and there seems little doubt that it would prove valuable. If the gutters of New York could be flooded with water from the bay from midnight till sunrise they would carry off an immense amount of filth, and the antiseptic effect which the salt would produce upon the vegetable and animal matter that came in contact with it would prove very salutary.

PAPAW.—While in Marietta, Pa., recently, we first made the acquaintance and learned to think most highly of the papaw, a kind of fruit that grows wild and in abundance along the banks of the Susquehanna. They are, when fully ripe, sweet and delicious. Mr Engle, speaking of them in a letter, says: "We have of late become more and more convinced that we have no more healthful fruit than this when in perfection." We hope efforts will be made to domesticate, and, if possible, improve it. If any of our readers have had any experience in raising or growing this fruit, we should be glad to hear from them.

SWEET STRAWBERRIES.—H. B. Spencer, of Rockport, O., sends us a box of delicious grapes, and thus discourses, in a friendly letter, regarding sweet fruit: "You ask about my success in raising new varieties of the strawberry. I did not succeed in getting any thing better than I already had. It was from the Jenny Lind that I expected a choice variety. I have never eaten any sort which is so delicious as this, when it is fully ripe. They are sweet enough to eat without sugar. They will not answer as a market berry, but for home use I advise all to plant a small plot of this kind."

PREMIUMS.—For a complete Premium List for the next year see page 298. Our inducements to form Clubs are greater than ever before. See also our Index for what we have given as reading matter during the year. See "Publishers' Department" for special notices to our readers. We were obliged to omit the "Literary Notices," as also the "Healthy Spices and Condiments," this month, in consequence of the crowded state of our columns. Send in your orders for next year without delay. The next volume will be full of good things. Let the ball roll on!

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Answers to Correspondents' Notes and Queries.

BY A. L. WOOD, M. D.

Can and Should Man Live without Salt?—A recent number of The Scientific American contains a short article entitled: "Salt in the Animal System," which quotes me as saying that salt as a condiment was "never useful; always injurious," and, to show that doctors disagree," quotes several eminent chemists and ponderous encyclopedias. One attributes the causes of electricity in the human body to be the presence of chloride of sodium or common salt, and consequently recommends a liberal supply of salt, both externally and internally. I give the closing paragraph of the article:

"There can be no reasonable doubt as to the benefit of salt to the human body. It would seem as superfluous to discuss the propriety of eating common salt with our food as to argue the healthfulness of water or bread, as salt has been almost universally used by both men and animals since the creation of the world. 'Salt,' says the Encyclopedia Britannica, 'forms an essential constituent of the blood, the loss of whose particles therefrom by the secretions, the tears, the bile, etc., being repaired by the use of common salt as a condiment.' And further: 'The gastric juice of the stomach contains free muriatic-chloric acid, which is doubtless derived from salt taken with food.' In Brande's Encyclopedia is the following statement: 'Salt is, next to bread, the most important necessary of life.' Stockhardt's Chemistry says: 'We find common salt everywhere in nature, because it is indispensable to the life of animals and plants.' In fact and in short, digestion and even life itself would cease were it not for the presence of salt in the human system."

To controvert the above statements I do not propose to array authority against authority, as can easily be done, but to present plain, unvarnished, provable, indisputable *facts* in support of the position that salt as a food or condiment is "never useful; always injurious." Salt has not been "almost universally used by men and animals since the creation of the world." There are millions of people in the eastern hemisphere who never even saw a particle of salt. Our own American Indians did not use it, and, with few exceptions, do not at the present time, and any one who has traveled among them will confirm. There is not a bird or a flesh-eating animal, except man, in existence that ever used salt at all, and there are but few, comparatively, of herbivorous animals in their natural state that ever taste it. The writer of this has himself lived for months and years without a particle of salt passing his lips, and he knows of others who have done likewise. What then becomes of the statement that life would cease were it not for salt?

Facts prove that salt is not indispensable to life and health; let us see if facts do not prove that it is not only useless but injurious. It is useless, because it can not be digested, assimilated, or used by the system in any possible manner in building up or repairing its tissues. Food—any thing which is used by the system in supporting life—always does and always must pass through the preparatory process of digestion to fit it for its office. Salt undergoes no change whatever; it enters the stomach as salt, and is thrown out from the body through the excretory organs as salt, pure and unchanged. All digested food leaves the body in a different form from what it entered it; salt leaves it in the same form as it entered it. Again, there is no substance suitable for food which one *can not* make an entire meal of. Who would like to make a full meal of salt? "But," says one, "salt is useful to season food with and make it taste good, if for no other purpose, and there are many kinds of food which would not be fit to eat without it." Then they are still more unfit to eat with it, and should not be eaten. No substance should be used for food which, by itself, is not relished by an unperverted taste. Who would think of salting a nice apple, peach, or pear, or a bunch of grapes? The idea is absurd; but still, if people were in the habit of doing so, it would seem just as necessary as it now seems to salt a potato. It is all a matter of habit. Food tastes much better to me now without salt than it formerly did with.

Salt is injurious in various ways. It blunts the sense of taste more or less, in proportion to the amount used, and the habitual salt-user can not and does not perceive and enjoy the finer flavors of food as one can who does not use it. Place a little salt upon a fresh wound and what is the result? A smarting is produced followed by inflammation. This shows that it is an irri-

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tant. When taken into the system it is there recognized as a foreign and injurious substance, which the vital powers, in self-protection, must cast out. How do they do it? They pour into the intestinal canal large quantities of fluid to protect the delicate mucous membrane, to dilute the offending substance and wash it from the system through the skin, kidneys, bowels, etc. It is this which necessitates the drinking of so much water by salt eaters. Those who do not use salt or other irritants never suffer burning thirst, and seldom feel the desire to drink at all. Salt always causes thirst, and in doing so helps to pave the way for the use of intoxicating drinks. "What harm does it do," some one may say, "if it is thus readily washed out of the body?" It produces a feverish, excitable state of the system, and consequently causes a waste of vitality, which results in a corresponding state of debility and susceptibility to disease. After salt has been used for a time, the vital powers become unable to cast it out entirely, and a portion remains distributed throughout the tissues; in the glands, causing enlargements, inflammations, and other glandular derangements; in the muscles, producing a dryness and rigidity of fiber far from natural; in the tissues and ligaments of the joints, causing stiffness and irritability which often lead to rheumatism; in short, it serves to predispose the body to every form of disease, and hastens on old age by rendering the solids dry, rigid, and inelastic.

New Cider.—"Is new cider, or cider in an early state of fermentation injurious to a healthy person?"

New cider just from the press is nothing but the juice of apples, and can not be said to be particularly unhealthful, if taken in small quantities and at proper times; but it is far better to eat the apples as Nature formed them, and thus get the juice and pulp combined. When the process of fermentation has commenced—and it commences almost immediately upon the separation of the juice from the apple—it is unhealthful and injurious, and in direct proportion to the extent to which fermentation has progressed.

Honey and Biliousness.—"I have read in your books that sugar makes one bilious. Does honey have the same effect? and is it unhealthful?"

Honey has very much the same effect as sugar, only to a greater extent. It is more unhealthful than sugar, and harder of digestion.

Hygienic Physicians and Drugs.—"Does the Hygienic physician dispense with drugs in all diseases?"

The true Hygienic physician uses drugs only when he wishes to destroy some abnormal growth or neutralize some poison. He does not believe that the correct way to restore the sick to health is to give them substances which would make them sick if given to them while in health; but he does believe that the true way to aid Nature in her efforts toward health is to place the patient in the best possible conditions as respects the great natural, health-giving agencies, as air, light, temperature, food, exercise, sleep, etc. There are many self-styled Hygienic physicians who use drugs to a greater or less extent in their practice, but they are unworthy of the name. They should at once style themselves Eclectic, as is their practice, and not, by sailing under false colors, palm themselves off as Hygienic.

Toothpicks and Brushes.—"Which is the best for cleaning the teeth—a toothpick or a brush? What kind of toothpick is best? Is soap necessary for cleansing the teeth?"

Picks and brushes are both necessary for keeping the teeth in good condition. The pick is the most important, because it removes the particles of food from between the teeth, where they would otherwise remain and decay, producing disease and decay at those points. The goose-quill pick is the best. Where the pick and brush are used sufficiently, soap is unnecessary.

Tumors.—"What is the cause of tumors, and remedy other than the knife?"

The exciting cause is usually some injury, as blows, bruises, strains, compression. They sometimes result from inflammation and also from obstruction, which may be produced by bad habits of eating, drinking, and bathing. Tumors may often be removed by strong douches, cold compresses, and manipulations, thus inducing absorption, but the knife and caustic are in many cases the best and quickest remedies.

Steamed Bread.—"Do you consider steamed Graham bread unhealthful, or is it the same as eating fresh bread?"

Unleavened bread is equally healthful whether fresh or steamed. Raised bread is better if left to cool and then steamed, than if eaten when fresh and warm.

Pimples on the Face.—This subject is treated of in the July number of THE HERALD OF HEALTH.

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Hygienic Home Treatment of Diseases.

BY E. P. MILLER, M. D.

The Stomach and its Diseases.—GESTION.—"There is no part of the body," s Dr. Chambers, "of which we hear so ch from our patients, and are able to com- nicate so little knowledge in return, as ut the stomach." "It is an ill-used organ, ay the least—often flattered in metaphor insulted in fact." In our opinion it is ch oftener insulted in fact than flattered in aphor. By the way people talk about the nach, and the good (?) things they concoct it, one would think it decidedly the most ortant organ of the body, and that it would guarded with the greatest care. Yet it is of the worst abused organs in the human em! It is often used as a mere bag into ch may be stuffed whatever comes in the ; as a mere mill that will grind out any g you can put into the hopper; as a chem- laboratory, receiving and disposing of what- r is thrown into it. But it is a simple, vi- organ, governed by definite laws of action, h its own peculiar function to perform, and le to derangements as well as other organs. There are two forms of congestion of the nach—active and passive. The former is ost always associated with inflammation, will be considered in connection with gas- is.

Passive congestion is caused by whatever erferes with the circulation in the capillary odvessels, causing the blood to accumulate these vessels. This may arise from me- nical impediments, from functional derange- nts of the stomach, or from changes in the od. Any thing which interferes with the urn of the blood to the heart will cause gestion of the stomach. Disorders of the r are perhaps the most frequent cause; or- ic disease of the heart or lungs will also se it; and tight lacing is a frequent cause all these conditions. Passive congestion, m functional derangement, is produced by ss errors in diet; by eating highly sea- ed food, the habitual use of alcoholic liquors, t tea and coffee, vinegar, pepper, mustard, ces, and the various substances used as med- nes.

The form of congestion attendant upon morbid changes of the blood is most frequently present in connection with other diseases, such as eruptive fevers, yellow and typhoid fevers, malignant cholera, etc. A suspension of the menses in women is sometimes attended with such severe congestion of the stomach as to cause vomiting of blood.

SYMPTOMS indicating congestion are disturbed digestion, diminution in the quantity of gastric juice, an uneasiness in the region of the organ, and sometimes hematemesis or vomiting of blood.

Passive congestion, if allowed to go on, often leads to a deposition of black, grumous matter on the mucous membrane, to a disintegration of the tubular glands which secrete the gastric juice, and to the formation of ulcers in the mucous membrane, the same as varicose ulcers on the legs are often caused by the passive congestion that is attendant upon varicose veins.

TREATMENT.—Remove the cause as far as practicable; when it is mechanical, or attendant upon obstruction of the liver, heart, or lungs, attention should be paid to regulating the action of these organs. The skin must be kept active, the blood drawn away from the congested parts, and equalized throughout the body. A thorough sponge bath in the morning, a cool hip bath in the forenoon, and the wet girdle at night, will be very beneficial. The wet-sheet pack given twice a week, followed by a rubbing wet sheet, will do much good in cases where the patient is able to bear them.

Simple diet, avoiding every thing of an irritating nature. The food should be taken in small quantities, and not more than three times a day; stimulants of all kinds should be shunned. Manipulations of the arms and legs, calling the blood to those parts, are very useful, and afford much relief.

When stomach congestion is caused by blood poisoning, the directions for treating the peculiar disease from which the poison arises must be followed.

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GASTRITIS OR ACUTE INFLAMMATION OF THE STOMACH.

This disease is of comparatively rare occurrence. The stomach, although the most abused organ in the body, is the least liable to acute inflammation. Nature seems to have taken into consideration the abuses to which it would be subjected, and endowed it with power to resist them without taking on inflammatory action. There are few things upon the face of the earth, and not many even in its depths, but have in some form been taken into the human stomach, either as food or medicine; almost every animal, vegetable, and mineral product has been used. A certain class of people called Polyphagists go about exhibiting their ability to swallow nails, knives, watches, and all sorts of heterogeneous articles. An American Indian, for a few pennies, would amuse a crowd by passing a blunt-pointed sword into his stomach. This he would do many times a day with apparent impunity; but at last the membranes of the stomach were perforated and death was the result. Bullets have been swallowed to produce an action of the bowels.

The human stomach will perform an immense amount of labor if it is even decently used; but it was never designed to dispose of nails, jackknives, bullets, alcohol, whisky, nor acrid poisons. Acute inflammation of the stomach is rarely met with, except as an effect of poison or some direct injury. It is frequently caused by mineral acids, caustics, alkalies, arsenic, mercury, antimony, alcohol, and various other substances used as medicines. Emetics and cathartics sometimes cause it, as does also swallowing hot tea or coffee, or large quantities of ice water in hot weather; excessive eating and drinking are liable to cause it; habitual drinkers of alcoholic liquors frequently die of gastritis.

SYMPTOMS.—A constant burning pain at the pit of the stomach, augmented by the slightest pressure. Nausea, followed by violent retchings; increased pulse; accelerated breathing; great thirst; an unrelenting desire for cold drinks, which are vomited as soon as taken; very soon the prostration becomes extreme, pulse feeble, extremities cold and clammy, and countenance pallid and anxious. If the inflammation continues the tongue becomes red, smooth, and glazed; bowels constipated, except when poison is being worked off in that direction; the temperature of the skin is considerably raised; the mind is depressed, eyes haggard; there may be vomiting of dark, coffee-ground looking matter, accompanied by great prostration, coldness of surface, weak, thready pulse, hiccough, death. This latter generally takes place in a few days; in some cases, however, it occurs in a few hours.

In those cases which recover, the improvement is very slow; the violent symptoms gradually subside, and the inflammation often passes into the chronic form. Perforations of the intestines and chronic ulcers often occur in this disease—the former always, and the latter often end fatally.

TREATMENT.—Those who rely upon medicines will be inclined, on noting the severe nausea and vomiting, to attempt relief by emetics of ipecac, mustard, or something of this kind. A worse thing for the patient could not be done. The stomach, already inflamed, is rendered much worse by such irritants. The nausea and vomiting is best relieved by bits of ice, which may be eaten freely, and even swallowed in small pieces. With the exception of water, the less of any thing else taken while in this condition the better. Perfect rest must be enjoined.

Hot fomentations may be applied over the stomach. In cases where there is extreme external heat, ice cloths may afford more relief than fomentations, or may be alternated with the fomentations. Bowels should be freely moved by means of tepid injections twice or three times a day; hot foot baths to keep circulation good; sponging the entire body in tepid or cool water, with plenty of friction, will keep the heat down and the blood equalized. The hot hip bath may be used advantageously in some cases, the attendant rubbing the hips and back while the patient is in the water. As symptoms become less violent, cool, wet compresses may be applied over the stomach, changed as often as is agreeable. No food should be taken until the inflammation subsides, even though it may be several days. The strength of the patient must be supported by injections of warm new milk or beef tea given in small quantities two or three times a day.

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When the inflammation subsides, a spoonful of new milk may be first given, repeated every hour for the first day, and gradually increased, if well borne, for two or three days; after this a little fine flour or corn-starch gruel. Only the blandest articles should be used, and these in small quantities, for several days.

When gastritis is caused by poisons, antidotes should be used. For arsenic, the hydrated sesqui-oxide of iron may be freely given. For corrosive sublimate and other salts of mercury, and also salts of copper, albumen or white of egg is the remedy. For tartar emetic, tannin and magnesia. For nitrate of silver, chloride of sodium or common salt. For mineral acids, chalk and milk or soap. For ammonia, potash, and soda, the antidote is vinegar.

Publishers' Department.

The Present Number.—The present number of THE HERALD OF HEALTH contains a large amount of valuable matter from the best writers. The "Minutes of the Brawnville Athletic Club" increase in interest every month; this series will be continued through succeeding numbers.

Prof. James Burns writes a very useful article on "The Education and Preparation of Mothers." We shall have articles from his pen during the coming year.

Prof. Browne continues his articles on "The Physiology of Man" with his usual ability. The paper in this number is one of the most interesting we have had from his pen.

Miss Eliza Archard is a new candidate for public favor. She graduated from Antioch College while that institution was under the presidency of Horace Mann. Losing her own health, she regained it by gymnastic culture. She holds an able pen.

Mrs. Gleason's articles are always welcome. She will continue to write during the coming year. Her articles have been widely copied by the local press.

Miss Phœbe Cary has furnished us with a very instructive poem, entitled "The Earthly House." She will furnish us with other poems during the coming year.

"How to Choose a Wife," by Henry Ward Beecher, is very interesting, and will, we hope, accomplish much good.

Prof. Welch of Yale College gives us an interesting article on "Gymnastics in Colleges."

Harvey P. Peet gives us a valuable article on the instruction of the Deaf and Dumb.

Rev. J. C. Holbrook's paper on the use of wine is most timely. This paper alone will do much good. The author stands high as a writer and Temperance Reformer. Many other articles of value, of which we need not speak, will be found in this number.

Form Clubs Early.—Those who undertake to form Clubs will find it much easier to do so early in the season than late. Be on hand early, therefore, and you can not fail to be successful.

New Writers.—We have engaged a number of new writers for 1868. Among them are President Haven of Michigan University, and Prof. Evans of the same. Both are men of fine attainments. We have in hand from President Haven a paper on "The Health of College Students," which will appear in the January number. Mrs. E. Oakes Smith will give us the benefit of her pen in a series of papers on the Family, to begin in the January number. Mrs. Caroline H. Dall has promised to write for us as she may find time during 1868. We have in hand a poem by Miss Alice Cary for the January number. Miss Alice Cary and her sister, Miss Phœbe Cary, will write regularly for our magazine. We hope, as soon as Mrs. Frances D. Gage recovers her health, to have articles from her. She is now under treatment at Dr. Taylor's Movement Cure, and is rapidly recovering. Rev. Wm. L. Alger, it is also expected, will furnish us with several articles; he is one of our best writers.

The coming volume of this magazine will be one of the most interesting yet published. We are determined to make THE HERALD better, if possible, with each succeeding year.

What Will You Have?—Would you like in your house a splendid cottage organ that will discourse beautiful music and add to the happiness of your family? Send us 100 subscribers and we will send you one worth $200, or for 55 subscribers one worth $100. This offer is a remarkable one, and can not fail to attract attention. We are only enabled to make it by securing it at the lowest wholesale price. We offer them at the manufacturer's regular retail price.

Money Orders.—Persons who send money orders should state to whom they are payable and by whom given. We prefer that all persons sending money should do so by means of money orders, where they can obtain them. It is entirely safe to do so, as these orders are perfectly useless to any but the rightful owner. Drafts on New York, however, are always perfectly satisfactory. When none of these are to be had, currency can be sent safely, if properly directed and carefully inclosed.

Special Request.—Our friends will oblige us, and benefit others, by sending us the names and post-office address of all invalids with whom they are acquainted; also, all friends of Temperance, Health Reform and Physical Culture. Any one who will send us a list of 25 *bona fide* names of such persons shall receive free by mail a copy of Prof. Wilson's work of 75 pages on the "Turkish Bath."

Write Plainly.—All letters should be directed very plainly, and all names should be carefully spelled. Sometimes people write so *they* can read the names easily, because familiar with them, but others can not do so. Mistakes may arise in this way. The address should also be well defined and written plainly.

Send Stamps.—Persons sending for circulars, or wishing answers to letters sent us, must inclose postage stamp to insure a reply. Three cents is but a small amount for one to pay, but when you pay that amount on three or four thousand letters it amounts to many dollars.

The Pangymnastikon.—We can not afford the space necessary to keep a long advertisement of this valuable instrument in our journal, and therefore take this means of saying that we will send them for $10 and $15. See back numbers of this magazine, or send for a circular.

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100 *Subscribers to The Herald, at* $2 *each,*

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Subscribe Now.—Do not wait till late in the season before you send in your subscription. Many who neglected to send in their subscriptions early last year were unable to get complete sets, as some of the numbers were out of print. NOW is the best time to subscribe.

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Our Premiums.—We shall be careful to send out as Premiums nothing which is not all that we claim for it in value. No cheap, second-hand, or indifferent articles will be used.

Stereoscopes.—We have carefully examined the Stereoscopes we offer as premiums. They are very fine, and furnish a great deal of amusement and instruction. They will be sent by express.

On Hand Early.—If you want to get up a large Club in order to obtain any of our premiums, go at it early.

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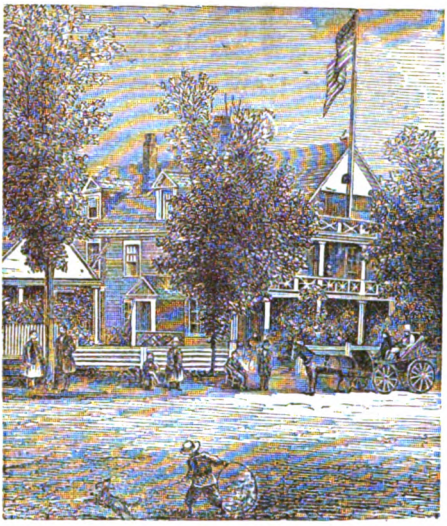
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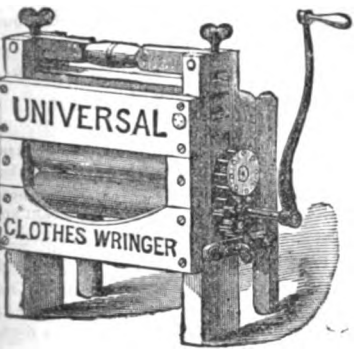
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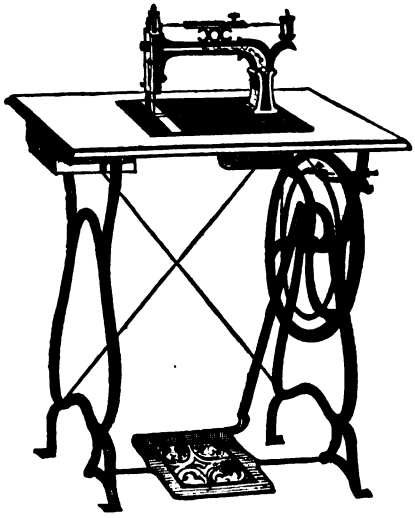
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Henry Ward Beecher has truthfully spoken when he says: "Young men come into life knowing the meaning of their passions; without knowing the laws or the drift of their appe-

Many times, through ignorance, they fall into habits that drain their very life blood and rmine their whole constitution. And when they come to years of discretion, so as to know is wise and what is unwise in the care of themselves, the work is done, they are damned, and can not be restored."

Many a young man has gone on week after week and month after month, holding out more more plainly the signals of declining health and strength; but no one inquires into the cause is troubles, or takes much notice of his perilous condition, until it is too late to save him. At his sun goes down, his companions wear crape at his funeral, and the minister says: 'In the erious providence of God this young man has been called away!' It is false! he was a victim norance of the laws of his being, or of the wicked and terrible consequence of a violation of e laws! This young man was a suicide! It does not take a man with a rope around his neck a suicide, or with a potion of poison in his stomach."

he above is also true of many a boy and girl, of many a young woman, and of many a married le, for, as Dr. Acton says, "The exhaustion of nerve power, the draining of the best life blood eminal losses, the influence upon the constitution, life, and health, is much the same whether al indulgence occurs in or out of wedlock, whether produced by natural or artificial means." ou would know the cause of all this, the means of prevention, and the method of cure, read this on Abuses of the Sexual Function, the Chapters of which treat respectively of

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