

The Health Reformer.

OUR PHYSICIAN, NATURE: OBEY AND LIVE.

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A CAUTION.

"LEST while ye gather up the tares, ye root up the wheat also."

Take care—crush not one germ of good,

In rooting evil out—

Be sure the heart is understood

You are employed about.

The flower beside the weed oft grows,

And none at first the difference knows.

Take care—be cautious where you tread,

Along another's road—

It may with precious seeds be spread

Fresh from the hand of God,

Waiting the sunshine and the dew,

Which might be ministered by you.

Oh! who hath felt no sudden smart

At some remembered hour,

When, thoughtless of a yearning heart,

He lost the sacred power

Which then and only then was given

To win it to the truth and Heaven?

We each and all an influence

To work some good possess;

We daily may some joy dispense,

Some human spirit bless.

If we can give but love and prayers,

'Tis better far than gathering tares.

—MRS. S. R. MORGAN, in *True Woman*.

The Cholera.

It is reported that several cases of cholera have occurred in New Orleans, Memphis, and one or two cases in some other Southern city; and we have no doubt that very many timid individuals will be frightened half out of their wits by the reports that will appear in the papers if the disease should become prevalent. Already we have received inquiries as to the course to be pursued to prevent this disease, and the means to be adopted in case it should make its appearance. There is an old adage that "an ounce of prevention is worth a pound of cure," and there is no disease to which this saying is more applicable than to this.

Cholera is supposed, by many, to be a contagious disease. Very many think that once exposed to it there is no escape. It is true that this disease has at times made terrible ravages among men, cutting them off by thousands, and that it has swept over continents and crossed oceans; yet we think it susceptible of the clearest proof that it is not a contagious disease.

The reason why so many persons in a single city, village, or town, have been swept into the grave within a short space of time, is because proper sanitary regulations have not been carried out.

An eminent writer says: "The causes of cholera may very properly be divided into two; epidemic, and sporadic. When this disease prevails as an epidemic, there is some peculiar condition of the atmosphere which is not compatible with the manifestation of active vital energies, and which subverts the healthy manifestations of the life forces. This is usually termed the *epidemic condition of the atmosphere*. Whether this condition is occasioned by emanations from the earth, or by the changes in the electrical condition of the atmosphere, or by planetary influences, or by all combined, is not known; therefore there is no known means of controlling or preventing it. We do know, however, that these causes are seldom, if ever, the means of producing cholera without the aid of sporadic influences; and these are within our reach and under our control, and may be avoided or removed. The sporadic causes of cholera may be divided into two classes: 1. Those that affect whole communities; 2. Those that affect only single individuals. Sporadic causes affecting the whole community of a city, or village, are what is usually termed malaria, or bad air. This arises, in a great measure, from the decomposition of animal and vegetable matter. It is often found in its greatest intensity in low, damp, and marshy situations, in the neighborhood of stagnant pools of water. It is always generated in crowded cities, and where large numbers of persons are collected together, as in armies. It is increased in cities by close, narrow streets preventing proper ventilation, by accumulation of filth in the streets, in dwellings, or about the premises; in short, wherever there are accumulations of vegetable and animal matter, there is a focus for the generation of malaria.

"Wherever a free ventilation is prevented, these gases accumulate, and become more concentrated

and virulent. We do not know all the agents which go to make up impure air; but we know that sulphuretted hydrogen, one of the gases given off in decomposition, is so poisonous that birds and small animals have been killed almost instantly by breathing in an atmosphere containing less than one quarter per cent of this gas. Carbonic-acid gas and carburetted hydrogen, though not so obnoxious to the senses, are also poisonous to a considerable extent. The existence of from eight to ten per cent of carbonic acid in the atmosphere is sufficient to destroy life; but the presence of no more than from one to two per cent is sufficient to interfere materially with the vital functions, and produce a condition of the system rendering it more susceptible to the influence of the epidemic causes of disease. Filthiness is the originator of this disease in very many cases, and almost the sole reason why it is so much more prevalent in some parts than in others."

Those cities which wish to escape this fearful plague should see that proper sanitary measures are immediately adopted. Let all stagnant pools be purified or drained. Remove all garbage from the market-places. See that all slaughter-house offal, all stable sweepings, all the swill barrels, all decaying vegetable and animal matters, and the contents of all cess-pools and privy-vaults are properly removed; in other words, remove everything that can render the air impure, and cholera will not trouble you. Let all who dwell in the country take the same precautions. Be sure to see that the well is clean, also the cellar, which must be well ventilated. Make all your surroundings sweet and clean.

CAUSES OF CHOLERA AFFECTING THE INDIVIDUAL.

"In addition to the local causes which we have enumerated, there are many affecting the condition of the individual system; this embraces all those causes which tend to weaken the vital power, as exhaustion from over-exertion, either physical or mental; want of sufficient nourishment from want of sufficient food; derangement of the digestive organs by excesses in either eating or drinking—a want of sufficient clothing; excesses of every description which produce exhaustion—these causes alone may be sufficient to so depress the vital energies as to bring the system within the influence of the epidemic cause. We most frequently find these personal causes combined with the others we have enumerated. There is one cause of cholera which is not confined to the poor and destitute, but which pervades the whole community, and which, perhaps, has caused more fatality in cholera than any single cause, aside from the epidemic influence; we refer to the influence produced by fear. It is well known that there is no moral influence which produces so depressing an effect on the system as fear. It has been clearly proved that the most vigorous of men, even in the

most perfect health, may be frightened to death. We have known nervous and irritable persons who were always thrown into a diarrhoea when much alarmed. If we only look at a frightened person, we see that they present almost the first symptoms of cholera—the face is pale, the surface cold, the pulse feeble, the blood having retreated from the surface to the central organs of the body. Could we satisfy community of what we fully believe, that the epidemic cause is seldom or never sufficient to produce the disease, and that they have nothing to fear so long as they avoid the other and local causes, we should confer the greatest possible benefit on the public. That the depressing effects of fear and grief should be sufficient to bring the system into a condition to be acted upon by the epidemic cause, will surprise no one acquainted with the laws of health."

TREATMENT.

At the very first appearance of symptoms, put the patient to bed and enjoin strict repose. Administer nothing internally except enema of tepid water to produce evacuation of the bowels, and tepid water to drink. Roll up the patient in a wet woolen blanket as hot as he can bear. Be sure the feet are well covered. Place a hot jug at the feet and cool cloths upon the head. Then give hot water to drink. After the sweat starts, or at the end of fifteen minutes, take him out, and after wiping dry apply cold compresses to the bowels. Change as often as they get warm. If cramping occurs, apply hot flannels to extremities, and rub all parts of the body thoroughly. Should collapse occur, give hot enema of three or four pints of water as hot as can be well borne. Apply hot compress, or hot wet blanket, to all parts of the body and limbs, keeping patient in a horizontal position. As the patient recovers, be very cautious not to overfeed, nor allow him to take too much exercise, for fear of relapse. * * *

SLEEPING UNDER THE CLOTHES.—There is reason to believe that not a few of the unaccountable cases of scrofula among children proceed from the habit of sleeping with the head under the bed-clothes, and so inhaling air already breathed, which is further contaminated by exhalations from the skin.

A good nurse will be careful to attend to this. It is an important part, so to speak, of ventilation. It may be worth while to remark that when there is any danger of bed-sores, a blanket should never be placed under the patient. It retains dampness, and acts like a poultice.

Never use anything but light blankets as bed covering for the sick. The heavy, impervious cotton counterpane is bad for the very reason that it keeps the emanations from the sick person, while the blanket allows them to pass through. Weak patients are invariably distressed by a great weight of bed-clothes, which often prevents their getting any sound sleep whatever.

Popular Absurdities.

BY RALPH E. HOYT.

To imagine that the effects of bad living can be eradicated by bad doctoring.

To suppose that any substance which is incompatible with the structures and functions of the body, can, because taken "as a medicine," prove beneficial to the taker.

To think that because a strong, robust man indulges in all sorts of bad habits, he is made strong and robust *by* those habits.

To imagine that alcohol is, or can be, in any manner conducive to health.

To suppose that you "would die without meat," or that you "could n't live without salt."

To take poisons simply because a doctor prescribes them.

To advocate abstinence from spirituous liquors "as a beverage," while adhering to their use as medicine.

To treat the sick with the view of curing the disease, instead of the patient.

To charge the ills resulting from repeated violations of physical laws to "Divine Providence."

To call poisons "remedies," and drugopathy the "healing art."

"Shall I Keep a Pig?"

WHY would you keep a pig? He is neither useful nor ornamental. He will do you no service, nor will he adorn your grounds. He is not fit for a house pet, nor for a playmate for your children.

"But I can make it pay; he will eat the house slops, and sour milk, and I can sell him when he is grown and fatted."

My friend, you are laboring under a mistake. I have two objections to offer. 1. You cannot make it pay. 2. You have no right to do it.

And 1. You cannot make it pay. No man can keep a pig unless he has a lot large enough for a garden; and no man can have a good and profitable garden without his *compost heap*. On this heap all the waste of the place should be thrown—all decaying vegetables, and the refuse from the kitchen. This should be covered often with earth, which will prevent any unpleasant smell about the place; and, at the end of the year, you would be astonished at the amount of dressing you have on hand for your garden, better than anything you can get from the stables. And nothing adds to the value of a compost heap more than milk, or it may be fed directly to the plants. If you have any doubts, just try the experiment of feeding milk to your squash or melon vines. Make a cavity near the hill, fill it with milk, and when it has sunk into the earth, or coagulated, turn back the soil to its place. Thus covered, it will not taint the atmosphere, and the plant roots will drink it

as greedily as would your pig. And you will soon take more delight in the growth of a hill of corn, a shrub, or a melon, than in the grunting and stench of a well-fed hog. In profit and pleasure, the house slops, sour milk, etc., pay much better on the garden than in a pig pen.

And 2. You have no right to do it. You have no right to pervert any part of God's creation, and endanger the health of your own family and that of your neighbors. Swine are scavengers; they were designed to destroy the filth which might accumulate on the surface of the ground and pollute the atmosphere. In northern latitudes, scavengers are not much needed, and nature makes no great provision for them. In the warm parts of our country, where all growth is rank, and decomposition takes place more rapidly, they are more abundant. The death of a creature in the fields or woods will soon fill the air with buzzards. Did the people generally pay regard to sanitary rules, scavengers (if not raised by man) would hardly be known north of "Mason and Dixon's line."

But, when swine are raised and fattened for gain, they are the very opposite of scavengers; they are not destroyers, but makers, of filth. There is no greater nuisance in a village than a pig pen. And the farther the owner puts it away from his house, the nearer of necessity he puts it to somebody else's house. Nothing else so loads the atmosphere with corruption. Even the tobacco nuisance has its intermissions, for people cannot smoke when they sleep. But in the still hours of the night, when the atmosphere is damp, and not generally agitated by winds, then the hog pen sends forth its most intolerable smells, which find their way into the neighboring sleeping rooms, if the occupants have dared to risk a proper ventilation in the vicinity of such an abomination.

Hogs roaming in a farm lot are not so bad. Of these I am not speaking, but of village pig pens. But I have known many farmers to build their hog pens up to the road, sometimes over against their own doors, and every passer-by had to endure their horrors. Were our laws what they ought to be, made to protect our natural rights, such things would not be permitted.

I would as soon a man would poison the water I drink as the air I breathe. And why not sooner, seeing we can do without water for considerable lengths of time, and almost entirely by practice? but air we *must use* constantly. No man has any more *right* to have a vile cess-pool or hog pen near my premises, nor to puff tobacco smoke in my face, to be taken into my lungs, than he has to throw arsenic into my well or cistern. But here I may as well stop; for it is of no use to talk of *rights* to men who are so selfish as to do such things.

J. H. WAGGONER.

A TRUE gentleman is never afraid of being mistaken for anything else.—*J. G. Holland.*

SUGAR.

THERE has been a great amount of discussion upon this subject among hygienists, and in many cases extreme grounds have been taken. We do not object to the positions taken, however, simply upon the ground of their being extreme, but because they do not agree with facts, and hence must be, as we shall try to show, erroneous.

It has been claimed by some that sugar is an inorganic substance, and, consequently, is no more fit to be eaten than salt, lime, or sand, sweet fruits being recommended as a substitute for it in rendering more palatable those of an acid character. The object of this article is to show, not only that sugar is not properly an inorganic substance, but that the same objections which are urged against the moderate use of pure sugar must of necessity apply to the use of sweet fruits. To establish the last mentioned point, it will be necessary to show that the sweet element of the juices of certain plants and fruits is identical with the article known as sugar, or, at least, that there is no essential difference between them in the condition in which they are introduced into the system. We have no intention or desire, however, to encourage in any way the improper use of sugar, an evil which is greatly prevalent among the American people in particular, but wish to remove, if possible, the prejudice which has arisen in the minds of many on account of the reckless and unscientific statements which have appeared in print upon this subject.

To determine the real nature of this substance, as we find it in the form of small, transparent masses or crystals, let us consider, for a moment, some of the characteristic properties of organic and inorganic matters. Organic substances may be distinguished from those of an inorganic nature, first, by their structure, organic bodies always being composed of cells, which are the result of vegetable growth. In fact, such substances are simply aggregations, or associations, of cells. Inorganic substances, on the other hand, are characterized by the crystalline arrangement of their particles, being merely aggregations of crystals. Crystals differ from cells in being angular in shape, while the latter are globular, or disk-like. A second distinguishing feature is that organic substances are subject to remarkable and frequent changes, while inorganic matters manifest a great degree of permanency, never being subject to that process of disorganization called fermentation, which is simply one stage of the process by which organic bodies return to the inorganic state from which they were originally derived. Many other distinguishing characteristics might be mentioned, but these will be sufficient for our purpose.

Now by a careful examination of the article under consideration in the light of the above principles, which are universally admitted to be correct,

we find that it cannot be properly classed as organic, or vegetable, on account of its crystalline structure. But we must not from this hastily conclude, as some have done, that it is inorganic, for upon applying the second test we see that such cannot possibly be the case, as no inorganic substance was ever known to undergo the process of fermentation, a process which pertains exclusively to organic bodies. It is well known, however, that sugar will ferment, being decomposed, by the operation, into carbonic acid, or, more properly, carbon di-oxide, and alcohol. These facts would seem to indicate that sugar is neither organic nor inorganic; and this is just the truth in the matter. While there are two general classes of matter, organic and inorganic, there are between these two a class of substances which approach sometimes nearer one, and sometimes more nearly to the other of the two great classes. These may be said to be in the intermediate or transition stage, and are, of course, but partially organized. Sugar, then, since it possesses *some* of the properties of both organic and inorganic matters, at the same time lacking some of each, must be acknowledged to be one of the intermediate or partially organized substances. Here we have the key that entirely removes the difficulty attending this subject.

Let us next consider the manner in which the crystalline form of sugar is obtained from the sweet juices of plants and fruits, to ascertain, if may be, whether the process is such as to necessitate any organic change in the element which imparts to those juices their peculiar flavor. The operation consists essentially of two parts: first, procuring the juices, a process entirely mechanical, and second, evaporating its watery portion. This done, the little angular masses called sugar make their appearance. Neither of these processes can be called in any way either chemical or organic; they are entirely mechanical or physical, and may take place without necessitating any organic change whatever. Again, the sugar, thus obtained, may be dissolved in water, and so diluted as to be brought, to all appearances, into the same condition in which it first existed. The particles of water are arranged together so loosely that they admit the particles of sugar between them. By simply evaporating the water, thus driving it off, the particles of sugar are brought together in masses large enough to be visible to the naked eye. Had we a microscope of sufficient power to distinguish an atom, the whole operation could be made visible to the eye, and this would be found to be the condition of sugar in the sweet juices of various vegetable productions.

But it has been maintained by some that the heat to which the juices or fruits are subjected breaks down the organic structure of the sweet element, or destroys its vitality, and so renders it inorganic. Although we have already shown that this cannot be the case, let us consider for a mo-

ment the absurdity of this last argument, which is, indeed, the principal one presented. Let us suppose that such a disorganization does take place as the result of the heat employed, or on account of the breaking up of the tissues of the fruit or plant from which the juice is obtained. If this is true, then all food which has undergone the process of cooking and chewing must also be inorganic. At least, the element of sweetness must undergo this change in the cooking and eating of sweet fruits, for the manufacture of sugar essentially consists of two processes entirely similar and identical.

Another very strong evidence of the fact that sugar approaches more nearly to the organic than to the inorganic world, is found in the manner in which it is acted upon by the system. Inorganic substances which may be taken into the body, as glass, sand, salt, etc., are expelled in precisely the same form in which they enter, unless they come in contact with other inorganic elements, by means of their affinity for which, they undergo chemical changes. The digestive fluids cannot act upon them in that peculiar manner called catalysis, and they can undergo none of the various vital changes, simply because they possess no vitality. While this is the case with all inorganic matters, it is not true of sugar. Immediately upon entering the mouth, the first of these changes commences with it, and the process continues until a complete change is effected, so that no sugar is ever found in any of the excretions except in some cases of disease.

In view of these facts, it must be evident to the candid and thoughtful reader, not only that sugar is not an inorganic substance, but that, when pure, its judicious use can be open to no more serious objections than may be urged against the use of sweet fruits. In our next article we will attempt to show the true relation of sugar, as an aliment, to both the vegetable and the animal kingdoms. We shall also notice some of the serious evils resulting from its abuse, together with those which are the result of poisonous adulterations which prevail to an alarming extent. In the meantime we hope that none will mistake our object. We do not wish to furnish any excuse for the reckless use of sugar, molasses, etc., and shall next month give some of the reasons why its use, in the manner in which it is generally employed, is not only entirely unnecessary, but positively injurious. Our only object is to find for this vexed question a truly scientific basis.

J. H. K.

THERE is a cry just now that there are no more "old ladies," the old-fashioned old lady having entirely disappeared since the introduction of dyes and cosmetics. So long as ladies refuse to wear their own white hair there can be no real old ladies. White hair used to inspire respect and veneration, and old age was beloved—it was consulted

and listened to with attention not granted the young. An old lady was never deserted then, and she now very often is, even though her locks were as white as snow; for she could be merry and talk, and was kind and indulgent, and felt no jealousy for younger women. But since chemistry has discovered the fountain of youth! there are no more white hairs—no more old ladies.

Impure Air.

THE evaporation from the earth, every hour of the hot and burning days, is filling the air with atoms of a poisonous nature.

Every decaying plant, every stagnant pool of water, and every dead animal in a state of decomposition, make the atmosphere we breathe a constant source of disease.

The fogs, and even the invisible moisture, floating upon the ever-changing breeze, carry the poison to every person in existence.

All who are predisposed to disease feel the baleful influence of this impure air. One is attacked with intermittent, another with remittent, still another with typhoid or typhus, fever, according to the organic conditions of the system of each; while others, who always live in obedience to the laws of health, escape every cause of sickness, and enjoy, from youth to old age, an almost unbroken chain of cheerful, active, buoyant health.

Often have we noticed the bad effects of dry weather upon a large class of the community. The air is so full of noxious exhalations that nearly a dozen patients a day will be added to the sick list of every busy physician. Tired and worn out with his constant labors, he looks forward with an anxious and sincere desire for the pouring rains.

At last they come. The grateful showers wash the air so pure that all who breathe its invigorating freshness enjoy a few days of perfect freedom from disease. Yes; the cause of sickness appears for a while subdued, and disease makes no new inroads upon domestic comfort. The physician would be nearly idle were it not for his old patients; for scarcely a new case, for the next twenty-four hours, will claim his attention.

Dense forests, growing between the homes of man and the stagnant marshes, exert a wonderful and happy influence in preventing the spread of malarious diseases.

In Spain, a convent once stood on a mountain side, overlooking a wild marsh noted for its poisonous effluvia. A lofty wood half enclosed the building, and so effectually screened it from the summer and autumn fogs of the lowlands that two or three hundred inmates enjoyed uninterrupted health within its walls. At last the old forest was hewn down, and the convent became a den of sickness to such a degree that it had to be abandoned, and was left to the owls and bats—a dreary and desolate ruin.—*Harkness' Magazine.*

Some Facts about Tea.

BY M. G. KELLOGG, M. D.

THE question is often asked whether there is any difference in the injurious effects of green and black teas. Before answering this question, it may be proper to state that nearly all the green teas in the market are artificially colored with poisonous coloring matter. The tea leaf is of a dark color when dried in the natural state, and is known as the black tea of commerce. When analyzed, a pound of tea, of either color, is found to contain about a third of an ounce of theine, two and a half ounces of gum, half an ounce of sugar, half an ounce of fat, one-twelfth of an ounce of volatile oil, two and a half ounces of caseine, and four ounces of tannic acid. The remainder is made up of water, woody fiber, and ash or mineral matter. The theine contained in the tea is what gives it its peculiar quality as an exhilarating drink. Theine is a poison which causes a peculiar effect on the system, by occasioning an increased activity of the nerves, and of the circulation. The philosophy of this increased activity is this: Theine is a substance which cannot be used in building up the tissues, or in maintaining life, and is consequently a poison. The nerves of organic life recognize this fact, and direct the vital organs to expel the poison from the system. This poison contains certain properties that are recognizable by all the nerves of the organic nervous system, and all the organs over which they preside are called into action for the purpose of expelling the poison. This increased activity taking place equally in all parts of the system, the circulation is slightly increased, but does not become unbalanced. With increased circulation, there is always increased brain action, unless the circulation becomes unbalanced, and the individual lives a little faster than before; hence, he feels enlivened and invigorated, and thinks tea is a good thing to take. In a short time, the theine is all expelled from the system, but the effort of expelling it has been put forth at quite an expenditure of vitality; consequently, as soon as the poison has all been expelled, the system sinks into a condition just as much below the usual standard as it had been above that standard before. The person then feels a lack; something is wanting; the nerves are exhausted, and the individual is miserable until he gets another cup of tea. Thus it is that men and women become slaves to the habit of tea-drinking.

The tannic acid has an effect on the membranes of the body somewhat similar to that which it occasions in tanning leather, so that an old tea-drinker is apt to have a yellow, tawny color. This color is owing to the tannic acid, which, by occasioning a torpid condition of the liver, prevents the blood from being sufficiently purified from the bile element.

In addition to the foregoing evils resulting from the use of tea, there is another which must not be overlooked; viz., the habitual use of tea weakens the entire nervous system, causing trembling, dizziness, and headache. As soon as the exhilarating effects of the tea have passed off, the nerves of the membranes of the brain become congested, and a headache ensues, which continues until the next cup of tea is taken, which gives immediate relief. This relief is produced by a temporary balancing of the circulation in the effort to throw off the poisonous theine. The person who drinks tea to cure the headache labors under a very great delusion; for the sole cause of the headache is the tea taken for the purpose of curing it. The tea gives temporary relief, and it is this that causes the deception.

In addition to the foregoing evil effects resulting from the use of both black and green teas, there are other evils, still more serious, which are occasioned by the poisons used in coloring tea green. Mr. Robert Fortune, in his recent work, "The Tea Districts of China and India," describes the process of tea coloring. "A light blue powder is prepared by the Chinese, in the proportion of four parts of gypsum to three parts of Prussian blue, and this is applied to the teas during the process of roasting. About five minutes before the tea is removed from the pans, the superintendent takes a small porcelain spoon, and with it scatters a portion of the coloring matter over the leaves in each pan. The workmen then rapidly turn the leaves around with their hands until all assume the proper color. To fourteen and one-half pounds of tea are applied rather more than an ounce of coloring matter, so that to every one hundred pounds of colored green tea, consumed in England or America, the consumer drinks more than half a pound of Prussian blue and gypsum. The best authorities state that now-a-days there is scarce one hundred weight of pure green tea imported into England or America. The writer above quoted had curiosity enough to ask the Chinese whether the tea would not be better without the coloring. They replied, 'Certainly it would,' and added that they never drank the dyed teas themselves, but as foreigners preferred to have the tea look uniform and pretty, and as Prussian blue and gypsum were very cheap, and the foreigners were willing to pay extra prices, they accommodated them. One of the most curious facts connected with tea-drinking was developed by a recent analysis made in London, showing that the low-priced black teas consumed by the poorer classes were genuine."

In the winter of 1862-3, the writer resided in San Francisco, Cal. During the latter part of the winter, a severe flood occurred in many parts of the State. The Sacramento River overflowed its banks, deluging the streets and lower stories of most of the buildings in the city of Sacramento,

destroying, or damaging, a great amount of goods. Among these, there was a large quantity of genuine black tea. This wet tea was bought at auction by the Chinese merchants of San Francisco, who dried and colored it, and sold it for genuine green tea. They prepared it in the same manner as described above. When asked if they did not know that the coloring matter they put in with the leaves was poisonous, they invariably replied, "Yes; we know it poison, but Melican man he likee it dis color. Chinaman, he no likee; he no drinkee gleene tea; he drinkee all the time blackee tea."

Another fact about tea-drinking is this: The Chinese never drink tea in such quantities as do the American people; neither do they drink it to rinse down their food, as do our people. After they have finished their meal, they usually drink a cup of tea; but the cup is not more than one-half as large as are our American teacups. They raise tea to sell. The sale of this brings them bread. Very few of the Chinese in California suffer with tea diseases, because they drink less of it than is required to occasion those complaints which so grievously torment American tea-drinkers.

Another fact concerning tea is this: The high price which it brings, and the ease with which it can be adulterated, are considered sufficient excuses with many dishonest tradesmen to sell the leaves of other plants, some of which are very poisonous, as genuine tea. In fact, no article of commerce is adulterated to such an extent. Recent experiments were made in Glasgow, which showed that out of twenty-seven samples of black tea, six were genuine, twenty were more or less adulterated, and one contained not a single leaf of genuine tea. Of eight specimens of green tea, every one was more or less painted and adulterated.

Health Institute, Battle Creek, Mich.

Lack of Knowledge.—No. 7.

BY J. N. LOUGHBOROUGH.

My last was written in Tehama County, where light on the great subject of health reform is much needed, especially if people would escape the effects of malarious diseases in that county. We are thankful that a few, even, as we mentioned in our last, are investigating these things, and becoming interested to know how to so relate themselves to the circumstances surrounding them as to obey the laws of life, that they may enjoy, in a measure at least, immunity from disease.

As I think of the introduction of hygienic ideas into Red Bluff, and those who have had an influence in the matter, it brings to my mind a few words of a song familiar to most of our readers. It is as follows:

"John Brown's body lies moldering in the grave,
But his soul is marching on."

Of the first of these statements there can be no doubt, but of the latter, whether "his soul is marching on," or not, we will not discuss here, but will simply state that after John Brown's death his wife did "march on" to California, and, with her family in quite destitute circumstances, came to Red Bluff, Tehama Co., where the citizens contributed of their substance to obtain for her a comfortable cottage and articles for house-keeping.

This same Mrs. Brown, while living in Kansas, had learned considerable of water treatment and health reform. Being withal an excellent nurse, she made herself quite useful in Red Bluff and vicinity in caring for the sick. Where it was permitted, she used water, and that with excellent success in a number of cases. I conversed with several persons there who told me that they were favorably impressed with the hygienic treatment of disease by the success attending Mrs. Brown's treatment. I did not see Mrs. Brown, as she has left Red Bluff and moved into the coast range of mountains. Although she is still marching on, her influence has made some impression for hygiene, even at Red Bluff.

Demonstrations in the practical working of health reform are causing thinking people to learn something of the care of their bodies. They discover that as their bodies are made of, and from, what they eat and drink, proper food of a right quality, taken in a proper manner, has much to do with good health and a proper tone of body. With the impress of these facts upon the mind, they sensibly conclude that to eat improper and stimulating food, or to eat even healthful food in improper quantities, or at improper hours, will induce fevers, dyspepsia, liver and stomach complaints, and many other diseases. But before me lies a statement from Doctor Plot, by reading which we should conclude that the medical craft had been endangered by the temperate habits of some, and that the doctor wished to "blot" out the impression that any disease could originate in the stomach, no matter how badly used. He says: "Cookery is a branch of chemistry, as well as an art. Soups, sauces, gravies, stews, etc., are compounded as carefully as a chemical preparation. They act on the system according to the preparation—that is, if well prepared, they do good; if not, the opposite. Cookery is the science that keeps in order the animal mechanism of humanity. The physician is only called in when, through causes entirely independent of cookery, that mechanism is out of order."

So, according to his statement, it is for causes outside of food that people employ the doctor. I wish this was true, and that all did so properly care for their diet that disease never did manifest itself in them only from other causes than improper diet. But, alas! that the great mass of the ills of this time do arise from improper diet.

tetic habits, is a fact too glaring for the doctor to "blot" it out. Did the masses understand this, and would they correct their wrong habits, instead of fleeing to drugs for rescue from ills brought upon them through their own negligence, much of present suffering might be relieved and avoided.

Dr. Blot says, "Cookery is a branch of chemistry;" but before me is another document by a recent writer, outstripping the doctor's chemistry. This writer (name unknown), is trying to maintain that life itself can be maintained upon chemical principles. And, with his plan of sustaining life, he is going to dispense with cooking entirely. He claims that he has discovered, and actually compounded, a "zootropic powder," containing the exact chemical and mineral elements necessary to maintain, and sustain, the human body in health. The inventor says he has tried these powders upon himself and his son; but he fails to tell what effect they had. This powder is entirely a mineral compound, and, as animal and human flesh can only be built up and maintained by food derived, either directly or indirectly, from the vegetable kingdom, it can in no way contribute to the maintenance of life, and what is more, life cannot long be sustained by concentrated food of any kind. There is a demand for bulk in the stomach. It must be distended, that its inner surface may be brought in contact with the nutritious elements of food in it, or its action will be necessarily enfeebled.

It is true that vegetation feeds on the mineral kingdom, and that vegetation, containing those mineral properties in the form of vegetable cell structure, supports and nourishes the human body; but it does not follow from this that those elements, when in the inorganic form of minerals, can nourish the body and keep it in a healthy condition.

In the beginning, God gave to man every herb of the field, the fruit of the trees, &c., for meat. From this, we should judge that the vegetable kingdom is better adapted to man's sustenance than minerals. But we will give, as a curiosity, at least, the component parts of the said "zootropic powder." To every 100 parts of the mixture, he proposes the following elements, in the following proportions:—

Calcic hypophosphite	10.
Tribasic calcic phosphate	10.
Sodic phosphate	15.
Calcic carbonate	10.
Magnesian hyposulphite	15.
Sodium chloride	10.
Potassic bicarbonate	15.
Ferrie oxide	10.
Manganic oxide	2.5
Potassic silicate	2.5
—	—
Total	100.

But it is supposed by many that flesh food is better to furnish real strength to the human system than vegetable food. We do not deny that flesh is food, and that it contains elements that may nourish the body; but we think it is clearly demonstrable that the only reason flesh-meats nourish the body at all is because of the existence of organic cell structure still remaining in the flesh, and that, after all, the nourishment contained in flesh is entirely derived from the vegetable kingdom. Those who have used flesh-meats as food for a long time will require a little time to adapt themselves to a new order of things, notwithstanding the new or vegetable diet, when established, is the most nutritious and healthful. Those using animal food should inquire first concerning the health of the animal whose flesh is used, and then they should employ as food only those animals whose sustenance and habits are such as will render them as healthful as possible. Even then meat should be used with great moderation, instead of making it the staple article of diet.

It must be evident to all reflecting minds that a great mistake is made by people at the present day in partaking so largely of flesh-meats, and in many instances using meat of animals of which they have no means of knowing whether they were healthful or not when slaughtered. I have before me an authentic statement in the *Daily Call* of the amount of flesh-meat that is required to supply the demands of San Francisco appetite for one month. It is as follows: 4000 beeves, 21,000 sheep, 7500 hogs, 2000 calves, 3,000,000 pounds of imported pork, besides the thousands of geese, ducks, and hens, which are furnished in such abundance as to be a great source of profit to ranch men.

Were we sure that this was all flesh of animals free from disease when killed, we might say less; but the equilibrium of the people's feelings has been already several times disturbed by the statement that Chicago hams had been brought to this coast containing the veritable trichinæ. Still, appetite gains the mastery over fear, and on the people go, eating largely of their excellent(?) pork.

What we recommend, is for all, as rapidly as possible, to adapt themselves to that quality of food and drink which is the best calculated to build up and strengthen the system, instead of continually infecting it with the germs of disease, as we most certainly do in all cases when partaking of the flesh of diseased animals. If a man has the liver complaint, the flesh of his whole body is affected. It is the same with an animal whose liver is affected. If we eat of the flesh of such animals, are we not imposing additional labor on our own livers, and laying a sure foundation for liver complaint in our own bodies? It is stated by those engaged in slaughtering animals that the great mass of animals prepared for the markets have

diseased livers. Why not apply knowledge gained, and rid ourselves of this source of disease?

Those who have long used flesh-meats can first cease using the grosser kinds, such as swine's flesh, then diminish the quantity of beef and mutton, being careful, as far as possible, to eat only the flesh of such animals as you know to have been killed when in a healthy condition, tapering off by degrees, eating only occasionally of fresh fish, beef, or mutton. Thus those even who have been long used to eating largely of flesh-meats, can, in a few months, bring themselves to the use, almost, if not entirely, of the wholesome fruits, grains, and vegetables, with which we are so abundantly provided in this country, at least.

In making such a change, there are several points gained: 1. Those adopting vegetarian diet escape the diseases produced in the meat-eater by partaking of flesh of diseased animals. 2. The grain, vegetable, and fruit diet is three or four times as nutritious as the same bulk of meat. It is more easily digested, and hence occasions less wear of the vital organs, is less stimulating than flesh-meats—stimulating only in the same ratio that it nourishes and builds up the body—while flesh-meats stimulate more than they nourish, their use being, consequently, followed with depression, stupor, and a sensation of goneness at the stomach. 3. We have no means of knowing the condition of the vast amount of flesh offered in the market, whether the animals were sick or well when killed, while the vegetables, grains, and fruits, pass more immediately under our inspection before being prepared as food, and can be rejected if found defective. 4. A fatty meat diet produces a sense of dullness, heaviness, and stupidity in the eater, while the vegetarian has clearness of mind, buoyancy of spirit, and freedom from anything like sick headache. Why not learn what diet is best adapted to healthfully build up and nourish our bodies? Having learned the right, let us follow it in all things, and reap the benefit thereof.

Vapa, Cal., June 3, 1873.

Is it Better?

BETTER to drink rum, brandy, whisky, and all the other fiery poisons of the dram shop, and then be obliged to drain to the bottom the bitter cup of remorse, goaded by the compunctions of a guilty conscience, and tormented by the loathsome fiends of delirium tremens, or to drink only cold water, and feel as the result the peace and satisfaction which an unclouded mind, a healthy stomach, and an easy conscience can impart?

Better to defile the mouth, taint the breath, destroy the health, belittle the mind, and disgust all sensible people by that abominable habit, tobacco-using, or to discard the filthy poison and enjoy the benefits of cleanliness and temperance?

Better to waste your time sucking smoke

through a pipe stem or a roll of filthy leaves, filling your head with clouds of vapory poison to the exclusion of anything more substantial, thus benumbing your moral sensibilities and beclouding your intellect, or to employ the precious moments in storing your cranial cavity with useful knowledge and beautiful thoughts?

Better to persist in gorging yourself with an indiscriminate mixture of pepper, sausage, tripe, lobster, mustard, peppercorn, wine, etc., just to please the taste, and then, in consequence, pass the dreary hours of night in the horrid agonies of nightmare, feeling, in the morning, as though about to visit the gallows, or to deny the morbid cravings of an abnormal appetite, and, by eating only simple and nourishing food, maintain that healthy condition of all the organs of the body which will insure refreshing sleep and a cheerful countenance?

Better to make an apothecary's shop of your stomach simply because you are slightly indisposed, thus attempting to cure one disease by producing a worse one, or to use only those simple, yet potent, agents, bathing, abstinence, and rest, by means of which, nature is assisted to remove the causes of disease, and thus effect a radical and permanent cure?

Who can for a moment question which is better? Is not an easy conscience better than a guilty one? a clean mouth better than a foul one? a clear intellect better than a clouded one? a happy countenance better than a melancholy one? a rugged constitution better than a ruined one?

QUERIST.

Have an Object in Life.

MANY persons weary of life, and even sicken and die because they have no object in view; and especially is this true of women, and of those whose parents are possessed of wealth. It is as impossible for a human being to be happy and healthful with nothing to accomplish as it is for the sun to cause darkness by shining. Man is so constituted that he can only be truly happy and healthful when all the powers of his being are brought into exercise. If he exercise his powers all in one direction, or through only one set of organs, those organs will wear out, or, at least, will become impaired, while the other organs will remain but partially developed, thus causing the body to become diseased.

When man was made, he was formed a being capable of manifesting physical power, intellectual power, and moral or spiritual power. His Creator designed that all these should be exercised, and it is such exercise which produces health and happiness.

The following from the *London Magazine* is illustrative of the importance of our having something to accomplish in life: * * *

"It is told of a religious recluse, who, in the early ages of Christianity, betook himself to a cave in upper Egypt, which in the time of the Pharaohs had been a depository for mummies, that he prayed there morning, noon, and night, eating only of the dates which some neighboring trees afforded, and drinking of the water of the Nile. At length the hermit became weary of life, and then he prayed more earnestly. After his duty, one day, he fell asleep, and the vision of an angel appeared to him in a dream, commanding him to arise and cut down a neighboring palm tree and make a rope of its fibers; and after it was done, the angel would appear to him again. The hermit awoke, and instantly applied himself to obey the vision. He traveled about many days before he could procure an ax, and during his journey he felt happier than he had for many years. His prayers were now short and few; but what they wanted in length and number, they out-measured in fervency. Having returned with the ax, he cut down the tree; and with much labor and assiduity, during several days, prepared the fibers to make the rope. After a continuance of daily occupation for some weeks, he completed the task. The angel that night appeared to him, as promised, and thus addressed him: 'You are now no longer weary of life, but happy. Know then that man was made for labor, and prayer, also, is his duty. The one as well as the other is essential to his well-being. Arise in the morning, take the cord and with it gird up thy loins, and go forth into the world; and let it be a memorial to thee of what God expects from man if he would be blessed with happiness on earth.'"

Education and Accomplishments.

We give below an excellent article which recently appeared under the above heading in the *Hesperian Student*, of Nebraska. We have long felt the great importance, and almost universal lack, of thorough discipline in the education of American youth, and especially in the fashionable education of young ladies. Indeed, we fully believe that the discipline derived from a thorough course of training in the sciences taught in our schools and colleges is really of far greater value than the mere knowledge of those sciences thus obtained. The *Iliad* and the *Anabasis* may be forgotten, the abstractions of mental philosophy may sink into oblivion, and time may efface almost the last trace of the knowledge of facts so laboriously acquired; but the acumen of thought, the strength of character, the power of critical analysis, can never be lost while reason remains enthroned. Every action of life, no matter if it be in the lowly walks of manual labor, receives the impress of this early training; and may we not believe that with many, at least, the influence will not cease with this short life, but that the ceaseless ages of eternity will

also witness to its priceless value. And while the necessity for giving to woman a more solid and substantial education is being urged, we hope that the paramount importance of physiology and hygiene, as an essential part of her educational training, will be fully recognized. Considering the fact that the character of the future generation, mentally, morally, and physically, is so largely dependent upon the conditions which are in the power of mothers to supply, what subject could be more important?

K.

"The men who graduate from colleges do not go through life constructing Greek and demonstrating problems in Euclid. Three-fourths of them never turn back to Thucydides, never touch a geometry, nor think of the metaphysics over which they puzzled their brains for weary months. These studies are forsaken; but the training, the intellectual discipline, the moral results of these severe studies remain as capital for future investment, and power to be applied whenever required.

"An educated woman will not make herself ridiculous by talking Latin, and quoting the Greek Anthology. She will have too much good sense for such pedantries as these. But her college drill will give her the strength, the vigor of mind, the training of faculty and will, the material and the standard for comparison, which she will find of incalculable service in all she ever undertakes and accomplishes. The house is not the less tasteful and elegant for resting on a rock.

"What women need is not less accomplishments, but more of the solid education, thorough training, which serves as the proper foundation for all graces and refinements. To-day women are accomplished to death. They have been taught to think that graces, and refinements, and elegancies, are everything. They waste their lives in adornments. It is all ruffle and no garment. To sing, and play the piano, and dance, and knit, and sketch, and chat, and dress, and entertain company, and visit, and the thousand other nothings that we have not the patience to enumerate—these make up the sum of a fashionable woman's existence; and, underneath it all, there is the weakness of undeveloped powers, the vacuity of an unstored mind, the listlessness and frivolity of an immature soul—a woman in years, but a child in everything that pertains to the real elements of her nature and ends of her life."

A NICE young man stood at the corner of two streets. He had just had his boots polished to the highest degree of glossiness, and it was a serious question with him how to make the crossing without getting his boots soiled. A couple of fashionably dressed young ladies were approaching, and the mind of our young man was made up in an instant; he quietly waited until those ladies had swept up the mud with their trailing skirts, and then crossed in perfect safety.

Diseased Milk from Impure Water.

PROF. LAW, of Cornell University, publishes in the *Lens* some interesting microscopical observations on the living organisms in milk, produced by cows drinking stagnant water. He describes the appearance of the milk as exhibiting "an abnormal adhesiveness of the oil globules, which had accumulated in dense masses instead of remaining apart, as in healthy milk. Intermixed with the globules were dark-colored spherical bodies of a much larger size, spores and filaments.

"On examination of the water drunk by the cows, it was found to contain numerous spores of low forms of vegetable life.

"The cows yielding the morbid milk appeared in health so far as appetite, rumination, pulse, breathing, and state of skin were concerned; but the temperature was higher than usual, and, on microscopical examination of the blood, it was found to contain ovoid bodies of at least double the size of the ordinary blood globules. Upon withholding the water, the impurity of the milk disappeared. The chain of evidence now appeared complete. The water contained vegetable spores which developed into a luxuriant growth of *mycelium* when allowed to stand."

It has often been a wonderment to many why certain families are always ailing, while all other families in the same neighborhood are healthy, also why individuals are taken suddenly ill with no apparent cause, having made no changes in any of their habits of life. There can be no doubt that many febrile diseases are occasioned by the use of such milk as that above described. It is a well-known fact that the mammary glands do throw out morbid matters with the lacteal secretions. The milk of a cow fed on fresh clover in the spring tastes and smells much different from what it does when she is fed on hay, and the same effect is observable if she be fed on turnips or potatoes, or if she be allowed to eat onions.

We do not proscribe milk entirely, but we advise all to be very moderate in the use of it, and we think it far better not to use it at all, provided a good variety of grains and fruits can be had; but for those who cannot obtain fruits, or who, as is the case with many poor people, are restricted to a very limited bill of fare, milk is admissible as an article of food. In this case, it should be used in cooking other food, or should, at least, be eaten with other food. It should never be used as a beverage.

Let those who must, or will, use it see that it is obtained from young, healthy cows, which are kept in a healthy condition. Cows cannot be healthy unless they are fed on clean food, have a clean place in which to lie down, plenty of fresh air to breathe, pure soft water to drink, and take daily exercise. Many a father who keeps his cow stabled from fall to spring, allowing her no exer-

cise, and compelling her to sleep in filth, and to breathe the poisonous emanations of her own excretions, or who waters her at some stagnant pool or filthy cistern, wonders why his wife has rheumatism, or his children bowel complaints or fevers. Surely, here is a sufficient cause for all these difficulties and a thousand others.

We do not wish to be understood that the above is the only cause of febrile diseases; it is but one of many causes. All disease is the result of unhygienic habits, either in ourselves or in our ancestors; and, if we would have health, we must become hygienic in all respects, and especially in regard to diet.

M. G. K.

 Medicine to the Dogs.

MANY years ago, when cholera was rife in Ireland, it seemed to defy the skill of the faculty to such a degree that the panic-stricken people believed the doctors poisoned the patients; and in some instances, they threatened to pull down the hospitals. During the while, a physician celebrated for his goodness of heart—and long since gone to his rest—was applied to very urgently by the brother of a cholera patient to make a visit at the dead hour of night, and at considerable distance from his residence. Being an invalid, he could not attend, but referred the brother of the patient to a neighboring physician with assurances of entire confidence. This physician, also, was unable to attend, but he carefully prepared and gave the messenger medicines suited to the emergency, and dispatched him, with the injunction to inform him if his brother was not relieved by morning, and he would call. A few days afterward, the first one of the physicians who had been called upon met the brother-messenger in the street, and the following conversation occurred: "Well, John, how is Pat?" "Long life to your honor, he's finely!" "I'm very glad to hear it, John; it's an ugly complaint that cholera." "Throth, and your honor, it is; and poor Pat had a hard time of it, but praised be the Lord, he's well again; and plase your honor, the dog's dead." "What dog?" "Oh! your honor, its for sartin the dog's dead." "What dog are you talking about, my good fellow?" "Plase your honor, I gave the medicines the doctor sent to the dog, and he's dead; but Pat's finely, your honor."

A NEW CURE.—Some chap has written an article to a medical journal, in which he recommends saliva as a cure for rheumatism. He claims to have cured himself and numerous others, by rubbing saliva upon the parts affected. Here is an opportunity for those tobacco-chewing loafers, whom we see upon our streets corners, to open a first-class patent medicine manufactory, bottling their vile saliva and so reaping an unexpected fortune from a credulous public. It can be done—only try.—*Ex.*

To Correspondents.

PEAS—RHUBARB—ONIONS.—J. H. inquires, 1. How should peas be cured for winter use? 2. Is rhubarb healthful? 3. Are onions healthful?

Ans. 1. If you wish to preserve peas green, you should take them, when sufficiently matured, and, after partially cooking, put them up in cans, just as you would fruits, and keep them in a dark place if glass cans are used. The green peas may also be preserved by simply drying them, and are found to be very excellent. They are just as good and wholesome, however, if allowed to ripen and dry upon the vines, simply requiring a little longer cooking. There is one kind of pea which is green and shriveled, even when fully ripe. You often find this kind at the stores. We use dry ripe peas quite largely at the Institute, and find them very palatable, as well as the most nutritious of almost any kind of food which we can employ.

2. The leaves and roots of pie-plant contain certain organic poisons; but these do not exist to any appreciable extent in the stalk, and, consequently, the use of this part of the plant need not be regarded as injurious.

3. Onions should never be eaten raw, or at least not until after having been soaked in water for an hour or two. They contain an acrid juice which is extremely irritating to the lining of the stomach. This objection is partially removed by soaking in water or by boiling. Persons whose organs of digestion are impaired, should never eat them.

WHEAT COFFEE—SODA.—J. H., of Ohio, asks: 1. Is wheat coffee injurious? 2. What effect is occasioned by its use? 3. Is soda more injurious, when used in pie crust, than butter or cream?

Ans. 1. Wheat coffee is by no means so injurious as common tea and coffee; but when the wheat has been burnt in the preparation, it becomes inorganic, and is recognized by the system as a foreign substance. If properly prepared, it is open to no more serious objection than can be urged against all hot drinks.

2. When taken with the food, it is injurious, since it hinders the work of digestion, as all fluids do when thus used. It also relaxes, and so weakens, the stomach when taken hot.

3. All three of the articles mentioned are so injurious that we may well dispense with pies if we cannot have them without being contaminated by such deleterious substances. Excellent pies can be made without them. Send 20 cts. for Hygienic Cook Book.

HAY ASTHMA OR FEVER.—S. V. inquires: "What is the cause and cure of hay fever? I have it every year, my health being good, however, with the exception of the fever during haying."

Ans. The paroxysm may be induced by wrong habits of life, over-work, over-eating, or something of this kind, or it may result from the inhalation of decomposing vegetable matters, which are very abundant at that particular season of the year, owing to the extreme heat. If you are living in a locality where an unusual amount of vegetable decay is liable to occur, as in the vicinity of marshes and low, wet places, you should remove to a more healthful place. Or, if you are properly situated in this particular, you must attend well to hygienic habits. Two or three general baths a week, with an occasional pack, accompanied by abstinence and plenty of rest, are the proper remedies or preventives.

A theory in regard to the cause of this curious disease, which is quite generally received by the medical profession, is that it is induced by breathing the odoriferous emanations from freshly-mown hay. Many instances are cited of individuals who were affected with this disease, but were immediately relieved by removal from the vicinity of newly-made hay, being again affected upon returning. If this is the truth in the matter, of course the proper remedy is removal from the presence of the exciting cause. If such a removal is not possible or convenient, the best preventive measures which can be adopted are such as will establish an active condition of the skin, liver, and other depurating organs; viz., frequent tepid ablutions, and occasional packs, with careful attention to the strict observance of all the laws of hygiene.

CATARRH MEDICINES.—W. W. L. asks: Do you use any medicines in cases of catarrh? If so, what?

Ans. We do not use any animal, vegetable, or mineral substance as a medicine. We treat all forms of disease without the use of medicines. Sometimes we use the knife or caustics when there are morbid growths to be destroyed, and we sometimes use anthelmintics to destroy worms. We also use poisons to kill parasites, and, in case a person were to swallow a poison, we would antidote the poison while in the stomach, if we had no stomach pump, and had the antidote at hand; but we never give medicine to cure the sick. Our only use for drugs is to kill. Our remedies are bathing, proper exercise, rest, healthful food, pure soft water, and all other hygienic agencies. We never attempt to cure a sick man by dosing him with what will make a well man sick.

WEAK AND INFLAMED EYES.—H. A. M. has weak and inflamed eyes. He has tried several "sure cures!" all of which failed. He is now ready to try nature's remedy—water, but does not know how.

Ans. Local application of water, or of anything else, will not materially benefit your eyes; you need constitutional treatment. Your primary

difficulty is with the liver. You must live on a very strict hygienic diet, keep your extremities warm, your bowels free, and your skin free from impurities and active, be regular in all your habits of life, bathe twice a week, and wear cool compresses over the eyes for a few days.

GRANULATED EYELIDS.—Mrs. M. B. P. has granulations on both the under eyelids, and asks what to do for them, as they trouble her very much.

Ans. Live on a spare diet of fruits, grains, and vegetables, without the addition of any seasoning whatever, not even salt, milk, or sugar. Do not eat more than one-half or two-thirds the usual amount. Bathe once or twice a week, keep your feet warm, your head cool, wear wet compresses on eyes nights, and keep your bowels free. At end of four weeks, if the granulations are not removed by absorption (they usually are by that time), touch them occasionally with some kind of mild caustic. White vitriol, dissolved in soft water and applied with a hair pencil, is good.

COLIC.—Mrs. H. C. says that she is a hygienist, but not very strict as regards salt, butter, cream, and sugar—is strict otherwise. She has a nice fat babe, two months old, which is healthy except that it has colic every few days. The babe is very fleshy, and she fears it may have croup. She wishes to know the cause of its colic and how to live so that her child shall be perfectly healthy. In a postscript she adds that she is very thin in flesh, and that she eats onions every day, and asks what effect the onions have on the child.

Ans. The child's colic is caused by bad state of its liver induced by improper food, or food taken in improper amount, or at improper times. The mother must live on a generous diet composed wholly of vegetable substances, leaving off the use of condiments. She should never use sugar except to sweeten very sour fruit. She should see that the child's bowels are kept free. The child should not eat too much; it probably does. The onions should not be eaten. They affect the milk in just the same way they would a cow's milk. Few would be willing to use the milk of a cow if she were allowed to eat such food as onions, leeks, etc.

A. L. F., N. Y., sends us a letter of inquiry with thirty-one questions pertaining to health, diet, &c. To answer all these properly would require all the space of the REFORMER. We recommend him to obtain "Graham's Lectures on the Science of Human Life," price \$3.00, and "Trall's Hydropathic Encyclopedia," price \$4.00. Both are for sale at this Office.

IMPURE WATER.—A. S. asks, 1. Is foul, bad-smelling cistern water fit to use in cooking or washing? 2. Is such water suitable for use after filtering? 3. How often should cisterns be cleansed to keep the water clean and sweet? 4. Is water fit for use that has stood over night in

pails painted on the inside with lead, or in pump-stocks, or in a room occupied by human beings or animals?

Ans. 1. No. 2. Yes. 3. As often as they become impure. 4. No.

F. A. P. inquires why her daughter, fourteen years old, who has lived several years on vegetables, fruit, milk, and graham bread, should have a much darker complexion than formerly.

Ans. It is often the case that persons who, after discontinuing the use of flesh-meat, partake largely of milk, butter, and sugar, become so clogged up with the bile elements that the skin becomes tawny. Such persons should discontinue the use of these articles.

Give your name and post-office address in full if you wish to secure an answer, either through the REFORMER or by letter. We frequently have to write to parties for further particulars before we can give answers. So give your name in full.

PHYSICIANS, HEALTH INSTITUTE.

Hard Work on Vegetable Food.

WHAT would an American laborer think of going without animal food for a whole year? It is regarded as necessary here, not only every day, but for almost every meal. Yet we are told that in Italy men work hard who subsist mainly on beans, peas, and the like, and do not taste animal food. A recent writer on the condition of that country says:—

"No man is considered to be thriving who does not lay in his winter supply of hard beans, or haricots, or lentils, or some of the numerous pulses known here as *cicerchie*, or *cece*, or peas. From day to day, in rotation, they are the constant food of the laborer or the operative, *who never touches meat from one end of the year to the other*, and who will work from sunrise to sunset."

IDLE GIRLS.—It is a painful spectacle in families where the mother is the drudge, to see the daughters, elegantly dressed, reclining at their ease with their drawing, their music, their fancy work, and their reading, beguiling themselves of the lapse of hours, days, and weeks, and never dreaming of their responsibilities, but, as a necessary consequence of neglect of duty, growing weary of their useless lives, laying hold of every newly invented stimulant to rouse their drooping energies, and blaming their fate, when they dare not blame their God, for having placed them where they are. These individuals will often tell you, with an air of affected compassion (for who can believe it real?) that poor, dear mamma, is working herself to death; yet no sooner do you propose that they should assist her, than they declare she is quite in her element; in short, that she never would be happy if she only had half as much to do.

DR. TRALL'S
Special Department.

The War of the Pathies.

HYGIENISTS and readers of the HEALTH REFORMER can be interested only indirectly in the controversies of the drugopathic persuasions. But we are all interested directly and indirectly in justice, fair play, equal rights, "life, liberty, and the pursuit of happiness." We think it as unjust for one of the pathies to be sustained by State taxation and authority, at the expense of the people, as it would be to sustain one denomination of the Christian church at the expense of all the others. If allopathy cannot sustain itself against homeopathy without legislative aid, we are in favor of letting allopathy take its own medicine and go to the—undertaker. And as the initial battle on this subject seems to be raging in Michigan, we propose to assist in educating public sentiment by a presentation of the facts of the case, for which we are indebted to Dr. Ewing Summers of Lansing, Michigan.

ALLOPATHY IN THE MICHIGAN STATE UNIVERSITY.

This institution is a part of the public school system of the State, being the highest department of learning which the State furnishes freely and impartially to all its citizens. The course of study is designed to be equal to that of first-class Eastern colleges. In addition to the classical and scientific courses, it has a law department and a medical department, which last is run exclusively as a "regular," or old-school, medical college, and has now about three hundred and fifty students. The average number of students in all the departments together is about twelve hundred, and the number of professors, twelve. The institution is regarded as the highest honor of the State.

But there is no rose without a thorn; and we presume there is no college without some troublesome feature, and one such feature in our own University has been a special object of attack by the Legislature which has just closed a long and tedious session. This body has almost earned the title of "The Medical Legislature." We now propose to give a brief history of "the late war."

In 1855, the homeopaths succeeded in getting a law passed requiring the regents to establish and maintain a chair of homeopathy in the State University at Ann Arbor. The old professors there scoffed at the law, and the regents feared to execute it lest resulting trouble would be so great as to break up the medical department altogether. They ventured, however, to appoint a professor of homeopathy, and, sure enough, all the regular

professors immediately resigned their chairs. The "*similia-similibus*" doctor was then withdrawn, and the "regulars" peacefully proceeded on their "regular" way. Appeal was made to the supreme court of the State for a writ of mandamus, but the judges decided two against two as to the constitutionality of any law requiring the regents to prescribe or proscribe any particular branch of study in the institution.

More recently, homeopathic pressure has been increased at the legislative sessions, until this last winter it culminated in another small victory by procuring the passage of a law requiring the regents to establish and maintain *two* professors of homeopathy in the University. The fight has been a big one, and at last the allopathists of the Legislature deliberately surrendered to the tragedy with as much grace as their natures would admit. The battle of last winter was opened by the convergence of several skirmishes from as many different quarters. The press reporter of the Senate, an influential citizen, publicly and before the Legislature, charges that there is religious and medical sectarianism in the University, supported at the public expense. Thousands of homeopathic petitioners ask that a chair or a department of homeopathy be established there; thousands more, that a homeopathic college be established elsewhere in the State; hundreds petition for a State eclectic medical college; one senator, for the purpose of burlesquing the irregulars, introduced a bill to provide for a chair of hydropathy at the University; and hundreds wish that the medical department there, a bone of contention for many years, should be abolished altogether. It was maintained to be unjust to tax the people of the State for the support of any "pathy" or particular system or school of medicine to the exclusion of others of equal respectability. The writer of this article drafted a bill to provide for equal representation of all the schools in the medical faculty. It was introduced in the Senate, and, without any lobbying or outside pressure whatever being brought to bear in its favor, it was ordered printed, brought up in committee of the whole, and gained many friends; but by a close vote was tabled; and the prospect now is that in a few years the said medical department will be abolished.

The inquiry will be made here how the regular professors justify themselves in supporting an exclusive system at the expense of the State. In answering this question, we will post our readers to some extent in the tactics adopted by the regular profession everywhere.

1. If you make any inquiry of a "regular" doctor as to his allopathy, he will uniformly tell you he is not an allopathist, and that his system is not allopathy and never was; that the term was coined by Hahneman and his followers and applied to the regular system to distinguish it from their

own; and that the regulars have never thought it judicious to adopt a modern name gotten up by their enemies. Accordingly, they maintain that they teach no "pathy" in their colleges.

2. They hold that what other schools teach is not in any sense "the science of medicine," nor any part thereof, and that what they themselves teach, and that only, is "the science of medicine."

Their only justification, therefore, is on the ground that their bigotry is right.

During the session of the Legislature just closed, a joint committee of inquiry was sent to Ann Arbor to examine into the charges of religious and medical sectarianism; but this was simply a movement of the conservatives, made for the purpose of blinding the public, for the investigation was of course a farcical one, and the resulting report exactly in keeping with the prejudices of the committee. They reported that Christianity was inculcated there, but not sectarianism [see Webster's definition of "sectarianism"], and that in view of the act just passed providing for two professors of homeopathy, they would report "non-committal."

It is a patent fact—and this was referred to in the committee's investigation—that all the text books and reference books in the medical curriculum of the University are strictly of the old school, all the professors are of the old school, and all the lectures in the course are precisely such as are given at the regular medical colleges elsewhere.

It was very difficult to draw out of the old professors how much credit of time in the course of study, if any, they gave to applicants for admission who had been studying under physicians of other schools. Generally they allowed no time.

Some philosophers gave currency to the maxim that no State institution of learning can have a permanent life, and the friends of the old school amended this saying by adding, "if it is tinkered with by the legislature." They groan piteously that the irregulars are enemies of the University, and are bent upon its ruin—upon bringing about its final and utter destruction by forcing into the institution the incongruous elements of all sorts of isms, and by making homeopathy the entering wedge.

But what is the use of enacting a law providing for two homeopathic professors in the University, when they cannot enforce the law they already have for one such professor? No use directly, but the moral working of the question is continually in favor of the homeopaths, or at least against the old school. A movement was set on foot during the legislative session for withholding further appropriations from the University unless the regents carried out the law; but it being late in the session, and many of the members being sick and at home, it was abandoned for this time. The conservatives generally pretend to look for a peaceable time now, but the war will be waged

hotter every session of the Legislature, until there is equality—until all schools are equally admitted or equally rejected.

Toothlessness.

SHALL we ever become a toothless nation? The prospect is that we shall, and that before many generations. It is certain that the demand for dentistry is rapidly increasing in all parts of the United States; and this demand is proof positive that the *odontia destructionis* is making fearful progress among us. There are dental colleges in most of our large cities for educating and graduating teeth doctors and surgeons. In Philadelphia, more than one hundred have received the degree of D. D. S. the present year. Perhaps three or four hundred have been graduated during the past year from all the schools. This is a fearful omen, however useful the D. D. S.'s may be; for, if ever so successful in pulling out useless masticators, mending the decaying ones, and substituting the absent ones, they can never make our teeth grow. Nothing short of nature can do that. Nor can our dentists, however skillful their manipulations, prevent the teeth of the people from going to utter ruin, unless they teach them to reform their habits of living.

It is as unnatural for the teeth to decay prematurely as for the eyes or nose, fingers or toes, to die before the other bodily organs. These would rot and crumble as the teeth do if they were as badly misused. Hot viands, stimulants, acids, and drugs are doing the work of making business for the dental doctors. Nor less injurious to the teeth are very cold ingesta, as ice-waters and ice-cream. But the worst habit of all for the teeth is that, so common at hotels and restaurants, of taking both hot and cold together or alternately. During the meal, the customer frequently takes a glass of ice-water and a cup or two of hot coffee; and after the meal, a dish of ice-cream. Such persons soon show incrustation and caries of the teeth, unless the digestive organs happen to break down and the patient die of dyspepsia before the teeth have time to rot. Those who would not contribute to the support of the dental colleges must masticate their food well, avoid very hot and very cold ingesta, and keep all irritating condiments and poisonous drugs out of their mouths and stomachs.

Startling Figures.

THE London (Eng.) *Dietetic Reformer*, in a forcible article on "The Sins and Follies of the Working Classes," presents the following fearful array of figures: "Just carefully consider a few points. To raise all our bread and beef and vegetables, we employ about 6,000,000 farm laborers:

to brew our beer, etc., and distribute it, we employ 846,000 men; and, besides this army of men, there is as much capital in the drink trade as in our three principal manufactures. In the cotton trade there is a capital of \$427,500,000; in the woolen trade, \$113,000,000; in the iron trade, \$127,500,000; and in the liquor trade, \$585,000,000."

Should Women Vote and Hold Office?

THE qualifications are honesty and capacity. And the capacity should be physical as well as mental. Without expressing any opinion on the abstract right, we will tell the advocates for woman suffrage how they can present their side of the question so as to secure a fair hearing. *Let them dress properly.* So long as frivolity and foolishness, and a silly subserviency to fashion mark everything in relation to their apparel, so long will those who deny their claim have the best of the argument—not in words, perhaps, but in deeds. The advocates for "equal rights" politically claim that woman would bring into legislation and the social arrangements the much-needed moral element. But if there is any one thing on the wicked earth more demoralizing than fashionable dress, we do not know its name. It is well known that the prostitutes of Paris invent the fashions, and that the only animus of the frequent changes and gaudy displays is to excite the depraved sensuality of the other sex. A few years ago, the Paris correspondent of the *New York Times* gave an exhaustive statement of the manner in which the street-walkers of that licentious city managed to keep up the ever-changing, but never decent, fashions which our respectable American women are so eager to imitate.

We are aware that, in making laws, men have many times discriminated against woman. We admit that she is unjustly crowded out of the professions, and of many of the most pleasant and profitable vocations. We grant that she is abused and oppressed in a hundred ways. But the way to recover her rights is not to abuse herself because men have abused her: not to act ridiculously because she is oppressed; not to destroy her powers and faculties because she is not allowed equal privileges in exercising them.

We have seen many women walk the stage and talk "woman's rights" who were themselves exhibitions of woman's inability to take care of themselves, much less govern the State. Their trailing skirts, corseted waists, and ridiculous head-gear, argued more forcibly against woman suffrage than their eloquent words did for it. No, sisters; first be sensible; show us that you can be independent, self-reliant, practical. Emancipate yourselves from the most degrading bondage on earth, in which cause all men will sustain you. We will then discuss with you this question of your voting

and holding office. Meanwhile, we commend to all sincere reformers, and especially to all professedly Christian women, the following words of Elizabeth Stuart Phelps, which we copy from the *Independent* of May 15, 1873:

"Not to enter into details of a mournful matter, for which private study is more fitting than public dissection, it seems as if the simple fact that the changing styles of a pure woman's dress, the civilized world over, have been, for years now many enough to shame us to the soul, dictated by the corrupt imaginations and polluted ingenuity of French harlots was enough to shock a thoughtful woman into asking, How can these things be? Can the bitter fountain send out sweet waters? the poisonous tree bear healing fruit? Is that system of things right which binds a woman's life to the gospel of self-adornment, and which regulates that life by such a decalogue?"

Women's Hair.

THE present fashion of arranging ladies' hair with the profusion of coils, puffs, and frizzes is exceedingly detrimental to the natural growth of that "crowning glory." The head is overheated with false hair, and the weight of the *coiffure*, which comes upon one spot on the crown of the head, drags the hair out, and causes the round bald spot so frequently seen when ladies are *en dëshabillé*. The large number of hair-pins necessary to fasten the ornamental hair in a manner to give it a natural effect is also injurious to the scalp, breaking off the hair where they are pushed in, and getting so tangled in its meshes that, when withdrawn, each one will have a snarl attached.

In the fashionable mode of hair dressing, the natural growth is an insignificant part, sometimes more in the way than otherwise, for all the show it makes in the great pyramid that is heaped up in such luxuriance; it is, therefore, neglected and left in a most careless condition. None would ever suppose that long hairs were the growth of years, observing how, in many instances, they are tangled and ruthlessly pulled out. Unless women have a large coil of natural hair, they ignore it entirely, and strive to hide what little they possess by rolling it in a small knot on the back of their heads to be covered by the false switches.

The state of the majority of ladies' hair at the present time is truly lamentable. The front locks are broken and burnt off with crimping and curling with hot irons. The bald spot on top is fast widening its circle; the scaly head, which is "never seen," is left undisturbed from shampooing, and the hair, which should be silky from brushing, and free from snarls, receives no attention save the rough handling necessary to tuck it out of sight.—*New York Commercial*.

What is talent worth if kept locked up in one's bosom?

THE DOCTOR'S STORY.

I.

Good folks ever will have their way—
Good folks ever for it must pay.

But we, who are here and everywhere,
The burden of their faults must bear.

We must shoulder others' shame—
Fight their follies and take their blame;

Purge the body, and humor the mind;
Doctor the eyes when the soul is blind;

Build the column of health erect
On the quicksands of neglect;

Always shouldering others' shame—
Bearing their faults and taking the blame!

II.

Deacon Rogers, he came to me;
"Wife is a-goin' to die," said he.

"Doctors great, an' doctors small,
Have n't improved her any at all.

"Physic and blister, powders and pills,
And nothing sure but the doctors' bills!

"Twenty old women, with remedies new,
Bother my wife the whole day through;

"Sweet as honey, or bitter as gall—
Poor old woman, she takes 'em all;

"Sour or sweet, whatever they choose,
Poor old woman, she dare n't refuse.

"So she pleases whoe'er may call,
An' Death is suited the best of all.

"Physic and blister, powder an' pill—
Bound to conquer, an' sure to kill!"

III.

Mrs. Rogers lay in her bed,
Bandaged and blistered from foot to head.

Blistered and bandaged from head to toe,
Mrs. Rogers was very low.

Bottle and saucer, spoon and cup,
On the table stood bravely up;

Physics of high and low degree;
Calomel, catnip, boneset tea;

Everything a body could bear
Excepting light and water and air.

IV.

I opened the blinds; the day was bright,
And God gave Mrs. Rogers some light.

I opened the window; the day was fair,
And God gave Mrs. Rogers some air.

Bottles and blisters, powders and pills,
Catnip, boneset, syrup and squills;

Drugs and medicines, high and low,
I threw them as far as I could throw.

"What are you doing?" my patient cried;
"Frightening death," I coolly replied.

"You are crazy!" a visitor said;
I flung a bottle at her head.

V.

Deacon Rogers, he came to me;
"Wife is a comin' around," said he.

"I re'lly think she will worry through;
She scolds me just as she used to do.

"All the people have poohed an' slurred—
All the neighbors have had their word;

"'Twas better to perish," some of 'em say,
"Than be cured in such an irregular way."

VI.

"Your wife," said I, "has God's good care,
And his remedies—light and water and air.

"All the doctors, beyond a doubt,
Could n't have cured Mrs. Rogers without."

VII.

The Deacon smiled and bowed his head;
"Then your bill is nothing," he said.

"God's be the glory, as you say!
God bless you doctor! good day! good day!"

VIII.

If ever I doctor that woman again,
I'll give her medicines made by men.

—*Will M. Carleton.*

Poisonous Pickles.

It is a common custom with housewives to pickle green fruits and vegetables, and to preserve ripe fruits. If they knew the evil effects resulting from the use of such articles, they would abandon them forever. Whatever condiment tends to preserve either fresh or green fruits and vegetables from decomposing or changing, is unfit to be used as food. The same is also true of any article that has been preserved or pickled. In the process of digestion, the food has to undergo organic changes. Therefore, whatever substance prevents organic change will also hinder digestion.

Pickles are a most unwholesome article, and should never be eaten, especially if of a bright green color. The *London Lancet*, a first-class medical journal, says:

"It is hardly to be credited that people will insist on having pickles, preserved fruit and vegetables, of a bright green color; yet a complaint was recently heard from a well-known London firm, that they cannot sell their articles because they will not adulterate them with copper. All bright green preserves are unwholesome, because of the addition of some copper salt."

HE that does good to another man, does also good to himself; not only in consequence, but in the very act of doing it; for the consciousness of well-doing is an ample reward.

JEHIEL SLAB says that a perambulating squirt-gun constantly charged with tobacco juice is, next to a barnyard, the nastiest thing he knows of.

The Health Reformer.

Battle Creek, Mich., July, 1873.

What we Are Doing at the Health Institute.

NOR a week passes that does not bring many new faces to our Home. They come, sometimes singly and alone, at other times, in little groups of two or three, or even more, from the same neighborhood. Some of these are poor, afflicted souls who have suffered many things of many physicians, and who, finding themselves nothing bettered, come to us as a last resort, well knowing that they must become victims to that cruel monster, death, unless we can rescue them from his merciless clutches. Others, who know more of the principles on which our system of treating the sick is based, come to us at the first, not waiting until they find themselves with one foot in the grave before seeking our assistance. Yes; there are daily arrivals of new patients. We say, Come one, come all. We can care for all that come. Still there is room. Not that there is no limit to our help and accommodations; but, while patients are daily arriving, others are departing with health regained and strength renewed, those departing making room for new comers. This, together with the fact that we add buildings as needed, makes our accommodations amply sufficient for all who may desire to come.

Many times our tenderest sympathies are drawn out to see the enfeebled, emaciated, tottering patients as they come to us seeking for relief, attempt to walk a few steps from the carriage to the reception room, or, if too weak for this, as is often the case, to see them borne by strong hands to the pleasant rooms provided for their reception. And again, as they relate to us the story of their sufferings, of their dosing and drugging, we are saddened, and perhaps repine that our lot should bring us in immediate contact with so much suffering. But, when these same poor, suffering, emaciated, tottering ones, after a few weeks' stay with us, come, with a firm and elastic step, and cheerful and ruddy countenance, to bid us good-by, and we take the proffered hand, and listen to their, "God bless you, doctor, for what you have done for me," and, as we reflect on the change that has been wrought in them, we feel amply rewarded for all our anxiety and painstaking, and are contented with our calling.

It is really surprising to see what a change for the better takes place in some of our patients in a very short space of time. There are very few who come to us as soon as they should. They keep putting off their visit to save expense; but, in so doing, they lose money. They had better by far expend one or two hundred dollars in regaining health, when it is first lost, than to neglect their

health and put their money out on interest, even at fifty per cent. In fact, one dollar will go farther toward securing the recovery of health, if properly used in the beginning, than five will a few months later.

One difficulty with some is that they get in too great a hurry. They are unwilling to wait for nature to work the cure; or they allow themselves to be deceived by discontented feelings into believing themselves in better condition than they are, and they become restless and wish to go home. This state of feeling does much to prevent speedy recovery in such ones. We are happy to say, however, that it is seldom that such a case occurs here. Our grounds are so beautiful, our arrangements for rooms, treatment, etc., are so convenient, our tables are twice a day spread with such healthful, nutritious, and delicious food, our helpers are so accommodating, and our physicians are so watchful and attentive, and such a motherly care and attention is manifested by our kind-hearted matron, and such a homelike air pervades everything, that it is the next thing to impossible for a patient to become homesick here.

We treat every known disease with remarkable success (patients suffering with contagious or loathsome diseases are not received, however, at the Institute). Our patients vary in age from early childhood to old age; yet we have our buildings and rooms so arranged that the most accomplished, refined, or aristocratic gentleman or lady finds such surroundings as are agreeable and congenial.

As illustrative of what we are doing, we offer the following case:—

Miss L. P. K. came to the Institute for treatment in Nov., 1871. The following notes of her case describe her condition at the time of examination: Age, nearly nineteen years. Inherited a scrofulous constitution. Was completely filled with serofula, considered to be at one time on the verge of scrofulous consumption. When about ten years old, had fever which brought her near the grave. Since then, had been almost constantly taking drugs, without receiving the least benefit. Had ten doctors attend her. The last one that called to see her told her that she would not live two months. Came to the Institute as a last resort, poor, sick, and discouraged, without much hope of this life nor of the life beyond this. Had dyspepsia badly for ten years. Headache most of the time, with occasional blindness. Had catarrh in the head. By spells, had a dry, hacking cough. Frequently coughed up tuberculous matter. There was almost constant pain between her shoulder blades, the pain extending down through her lungs. Troubled some with palpitation of the heart. Back weak, could not sit and sew half an hour. Bowels constipated, had piles at times. Menstruation irregular and painful, which reduced her much. Both ovaries were affected. Had been troubled with uterine displace-

ment for six years. Suffered from disease of the right kidney, and also from scrofulous hip complaint, the left hip being almost continually painful. The whole right side affected with numbness, at times to such an extent that she feared she would lose the use of her limbs on that side.

The following letter, which was received from her a few days since by one of our physicians, speaks for itself:—

Dear Dr. ——— :

I take the opportunity of writing a few lines, that you may know how I am prospering in health. My health is better now than it ever has been, and I don't look like the same girl. If you were to see me, you would take me for some other girl. A great many of my friends don't know me. They will stare at me, and, finally, will ask my name, and say they thought it was I, but were not certain.

You may doubt my word when I tell you what I have been doing the past year; for it does not seem possible that such a sickly girl as I was could make such a great improvement in health as I have in eighteen months by right living. Last summer, I went out doors and worked, as the Drs. recommended. I raised about seventy-five bushels of potatoes, plowed, hoed, and tended them, and plowed and hoed about half an acre of other vegetables and grains. I worked every day out in the hot sun with a cheerful heart; for I was after the greatest blessing this poor earth can afford, health. I think I will find it ere long. I don't expect to jump back into perfect health in a few days, or even years; but I expect to climb back over every round of the ladder, as you said I would have to do, and I am thankful I can find health at last.

I worked out doors most every day last winter, took care of our horse and two cows all winter, and hauled all of our fuel from the woods. My brother drew some dead hickory trees to the wood yard. Mother got me an ax. I made the handle, put it into the ax, and had my movement room out in the wood yard in chopping wood. I chopped about five cords. I also filled a hired man's place for about two weeks in helping my brother do his chores, and they were not few nor light.

We have moved to town this spring, so I will have to bid farewell to the farm. But moving to town has not stopped me from working; for I have lathed a room 14×14, and they say I did it well. I have also helped spade our lot, containing a quarter of an acre. I did not do this work because I was obliged to, but to show the people what a bran-bread girl can do; and, if I do wear the reform dress, as I often hear them remark, I can out-work the tight-laced, long-trailed, puny girls that will work with me. I assure you that I feel proud of the work which I have done the past year, and I cannot see any reason why I should not; for I did more work the past year than in

three years before. I am almost free from pain, and shall commence going to school soon.

Here is a letter from another of our patients:—

Respected Friends and Proprietors of the Health Institute:—You will doubtless remember me as an invalid at your Institute some eighteen months since. You no doubt recollect to what an almost helpless condition I had been reduced by fever and ague. Such was my feeble condition upon leaving home for Battle Creek that friends and neighbors almost despaired of ever seeing me return again; but, fortunately for me, I could not be prevailed upon, though strongly urged by well-meaning friends, to take medicine; which, as you testified, was evidently much in my favor, making less difficult a permanent and speedy cure, upon hygienic principles. And so thorough has been the cure, by your treatment, that I have since found no occasion (I had almost said, Not had the pleasure) to return to your Institute. I have never regretted my short stay of four weeks with you at Battle Creek; and should occasion ever demand it, you can look for me back there again. Should we succeed, however, in our efforts to live strictly hygienic, as indeed every family in all reason should, you may quite well despair of seeing me come very soon, as an invalid, at any rate. Should I find, at any time, sufficient leisure, I should consider it a great pleasure, as well as advantageous, to come and spend a month or so at your Institute.

To the afflicted everywhere, and especially those who are troubled with fever and ague, I would say, Do not waste your time and means, as did the woman who "had suffered many things of many physicians, and had spent all that she had, and was nothing bettered, but rather grew worse" (a common occurrence), but go at once to the Health Institute and "be made whole," and learn how to live in accordance with nature's laws, and you will be greatly rewarded in more ways than one. Oh! what a pity that men generally do not seem to understand nor regard those laws, founded in nature by the allwise Creator of all things, the violation of which will naturally involve suffering and loss; while upon obeying them, our usefulness, and spiritual and temporal enjoyments in this life so much depend.

With many thanks for faithful care and kind treatment received on the part of all connected with the management of the Health Institute, and well-wishes for its future prosperity and usefulness, I subscribe myself as your fellow-laborer in hygiene.

DANIEL BRENNEMAN.

Many similar testimonies of benefit received at our Institute might be given, as we are constantly receiving cheering news from former patients by letter and by means of their invalid friends who, through their influence, have also been induced to come to us and be healed of their many ills and infirmities.

M. G. K.

Bread.—No. 3.

In the last number, we mentioned two kinds of raised bread; one raised by fermentation, and the other raised by the means of acids and alkalies. We also promised to give, this month, a process of raising bread which has not the objections to which both the other kinds are subject. The theory and practice of making this variety of bread is so simple and easy, and withal so certain in its results, that but little space need be given it.

The process is simply this: The flour used should be stirred up in water and then either beaten with a spoon or kneaded until fine bubbles of air are mixed evenly through the entire mass. If simply stirred up as a batter, it should be baked in small patty tins, or better still, in what are called "gem pans," which are made of cast iron and contain nearly a dozen oval or round dishes joined together. Bread baked in this way is called soft bread or "gems." The pans should be hot when the batter is dropped into them, and they should be baked in a quick oven. If the mass is kneaded, it may either be rolled thin and baked in the form of biscuits, or made in the form of rolls and baked on the grate.

There are two agents which assist in raising this bread and making it light. One is the water in which the flour was stirred, and the other is the air which was either stirred or kneaded in. When the mass becomes heated in baking, the water is converted into steam, and the air expands, both together rendering the bread light, and excellent to the taste, and a healthful article of food.

Good graham flour is best for making this kind of bread, as it does not lie as compactly together as the bolted white flour. Great care and attention should be exercised to have the flour just right. It should be made of pure, clean, white wheat, as the bran of this is thin and not so tough as that of red wheat. It should be ground as fine as for fine flour, but all the bran should be left in the flour. The mill stones should be sharp, that the bran may be cut fine, and not merely bruised, and the wheat should be dry when ground.

In regard to the merits of the three kinds of raised bread, we can see but little objection to good fermented bread if baked just in the right time and way, and if it be not eaten until the alcohol and the carbonic-acid gas have escaped. We cannot say as much, however, in regard to that bread raised by the union of acids and alkalies. One great objection is that an unhealthy salt is always left in the bread; but this is not the worst feature. The acid and the alkali unite in exact chemical proportions; hence, if there be more of the saleratus than will exactly neutralize the acid of the sour milk, the residue of the saleratus remains in the bread as saleratus, as you have doubtless often seen in saleratus biscuit. This unneutralized alkali is much worse than the salt

which is invariably left as a result of the chemical union of the acid and alkali. It is extremely difficult to mix these elements in exactly the right proportions, as it is impossible to tell to just what stage of acidity the milk has arrived, thus making an unhealthy residue almost certain.

Of the last kind, which is introduced in this number, little need be said, only that it is perfectly healthful, and not liable to the objections to which the others are necessarily subject. Let us choose the best.

J. E. W.

Influence of the Disposition on Alimentation.

J. H. WAGGONER.

It is a fact well known to physiologists, and to all observers, that, in eating, the brain is first to be satisfied as to the quality of the food; and the manner of the reception of the food by the stomach depends almost entirely upon how it is recognized by the brain. When food is taken into the mouth, the brain immediately passes its judgment upon it. The decision formed by the brain affects the nerve centers which preside over the stomach, and they, acting in harmony with the brain, direct the stomach to prepare itself for the reception or rejection of the food. Or, in the more popular form of speaking, if the food is acceptable to the brain, the stomach sends forward a call for it; but if not, the stomach sends a remonstrance against it. Frequently, the stomach recoils with disgust and nausea from food which has not yet reached it, only because of intelligence received from the brain that such food is not agreeable or useful.

The stomach will digest, and the system will appropriate, almost anything that is food, if it is acceptable to the brain. It is this that has enabled so many to endure privations, as in "crossing the plains," &c.; they "made up their minds" to it, and "accepted the situation" with cheerfulness. Many, on reading of a rigid dietary, say they could not live so. And this is literally true, provided they keep in their present state of mind. "I should die," says one, "were I forced to live as Dr. Trall lives." I do not doubt it; and Dr. Trall would have a hard time also if *forced* to live so against his will. But had you spent your life in training yourself up to it, as he has done, until your convictions and determination were as strong as his are, you would succeed as well as he does.

Some may dissent from this view, thinking it gives too much credit to the power of the will or the imagination. But a little reflection must serve to justify this position. The man of determination, who *will* endure, comes safely through the most trying ordeal; but he who murmurs at his lot will pine away under even ordinary privations. The mind is stimulated and sustained by seizing upon imaginary blessings; while real bless-

ings will not sustain if not appreciated nor received with satisfaction. And imaginary difficulties or dangers are the hardest to meet; in fact, they are the most difficult to endure, because they cannot be met—because they are imaginary and intangible. The hero of a hundred battles, who would not shrink before a score of real foes, will shiver with affright before an apparition, or a mere phantasm, which his sword will not bring down. Many a person bravely meets the ills of life, and conquers the real difficulties daily met, who yet sinks under the constant dread of something that “may be.” Neglect is endured with patient fortitude, while causeless jealousy destroys.

Now, this being true, the brain having such an influence over the stomach, it follows that a contented, cheerful spirit is essential to the proper action of the stomach; that is, to perfect digestion. It has been well remarked by a writer on physiology that “a fretted disposition” hinders digestion. This is a physiological fact. The influence of the brain over the stomach is similar whether it be disgusted with the food taken, or with something else, it matters not what. Let any person habitually sit down to meals in a sour, cross state of mind, and the food received will not be *well received*; it cannot be well digested. A constant fretter must, sooner or later, become a chronic dyspeptic.

When persons, under such conditions, are assured of these facts, they will complain that you have no sympathy for their sufferings; that you think it is all imaginary. But that is not so; you are really sick, and with one of the worst ailments that flesh is heir to. But it is also true that they are the authors of their own troubles; the cause is with themselves, and within reach of their control. And as for sympathy, they are deserving of the least sympathy of any class of invalids in the world. They have made themselves sick in making everybody around them miserable.

Now for the remedy. It is not found in drugs and patent medicines. Even “hygeio-therapy” does not reach such cases. Nor will it do the patients any good to complain that others do not pity them nor realize how they suffer. This aggravates the case, as it is the outgrowth of the very spirit that has brought their sufferings upon them. The cure is found in *reform*! Cultivation of kindness of heart and cheerfulness of spirit will bring relief. In no other condition does the proverb, “A merry heart doeth good like a medicine,” apply so forcibly as in this.

All fretting, complaining, and seeking to get others to pity and to sympathize, are evidences of selfishness. Therefore, no permanent relief can be looked for, except in forgetting self and striving to make others happy. This cannot be done in an hour; but perseverance will accomplish it, if there is a just sense of the difficulty, and sufficient *principle* and *force of character* left to form a basis of action.

Death in a Damp Cellar.

THE poet Cowper lived several years in a house where water was in the cellar two feet deep. During this time, his poetry became more and more gloomy; he almost, if not quite, believed his soul was lost, and finally he settled into a frightful melancholy akin to madness. Then it was he wrote that awful sentence: “Every human heart contains a snake which is prevented from escaping by the hand of God.” On removing to more favorable quarters, he was partly restored, but died with a clouded mind. Darkness and dampness lead to melancholy and death; lightness and dryness, to cheerfulness and life.

The simple lesson of this is, that every cellar should be thoroughly cleaned at once of all remains of vegetables, old barrels, boxes, boards, and trash. Some families have a habit of using the cellar as a lumber room, and we have seen as many as thirty or forty barrels and boxes piled up in a cellar as though they might sometime be needed. Perhaps they may be, but it is more likely that the hoops will swell and burst, the boxes become moldy and rotten and all get worse than useless. It is a good thing to be saving, but one may accumulate such old stuff until it becomes a nuisance; often there is so much that it is difficult to find what is wanted, or, full as likely, it is entirely forgotten; and, if in a cellar, it molds and rots away, poisoning the air, tainting the eatables, and making the living rooms above decidedly unhealthful. The way to do is to give the cellar a thorough cleaning, and keep out barrels and boxes unless absolutely needed; and to make a sure thing of it, let this old stuff get dry, then burn it up or prepare it for kindling wood, and so get rid of it. There will be enough more when wanted. If a cellar is wet, so much the greater reason why everything that can be spared should be taken out. No condition is worse than a damp cellar, for it is certain to make the whole family sick sooner or later, and not unlikely to lead to consumption and early death.

Where it is possible to do so, the cellar should be built separate from the house.

—Let good reading go into a home, and the very atmosphere of that home gradually changes. It becomes clearer, purer, more cheerful, healthful, and happy; the boys begin to grow ambitious, to talk about men, places, principles, books, the past and the future; the girls begin a new life opening to them in knowledge, duty, and pleasure; and so the family changes, and out from its number will go intelligent men and women to fill honorable places and be useful members of the community. Let the torch of intelligence be lit in every household; let the old and young vie with each other in introducing new and useful topics of investigation, and in cherishing a love of reading, study, and improvement.

Life in the Open Air.

NELLIE F. HEALD.

PERHAPS nothing is more conducive to sound health, cheerfulness, and good temper, than life in the open air. And it is a source of regret that so many are prevented, either by occupation or circumstances, from securing that measure of outdoor life and exercise so essential to health of body and elevation of soul. But it is evident that many of us enjoy far less than we might the sweet freedom of the fields and woods, the life-giving sunshine and the fresh, invigorating breezes of heaven. We know that the blood is sent to the lungs to eliminate the poisonous carbon, and to receive a supply of oxygen from the air, to purify it, that it may impart freshness and vigor to the entire system. But if we confine ourselves too closely within doors, breathing impure air, the lungs are deprived of their due supply of oxygen and the blood is not purified; and instead of freshness and vigor, there is languor and weakness.

As plant-life, when secluded in close, dark places, deprived of the life-giving, beautifying sunshine, is pale and sickly, so human life loses its freshness and vitality from the same causes. But this contact with the outer world of nature not only brings new life to the physical nature, but the finer powers of the mind are quickened and expanded by frequent communion with nature in her ever-varied moods. The sweet repose of nature is soothing to the tired nerves, restful to the care-worn soul. Its brightness is enlivening, its grander scenes, inspiring. We give an extract from "Life in the Open Air," by Mrs. L. K. Davis:—

"The Swiss of both sexes, living in mountainous regions, herding their flocks on perilous peaks, and breathing the clear air of those serene heights, learn to love intensely those airy homes, and are scarcely less agile of limb, or sound of lung, than their light-footed neighbor, the chamois of the rock. The English, however, seem to have systematized the securing of this great boon of Heaven, the free use of air, more thoroughly and entirely than any other people. It is not with them as with dwellers in southern climes, the instinctive homage paid to cloudless skies and lovely landscapes. The humid atmosphere of the British Isle, its oft recurring clouds and storms, offer no such inducements to the idle rambler; and it is undoubtedly owing to the deliberate conviction that outer air and exercise are a necessary part of the training of girls, as well as boys, and to the carrying out of this belief in practice, that the better classes of the English are the most thoroughbred physically, if not mentally, of any people under the sun. Nor do they deem this desideratum a thing to be achieved in early years, and laid aside forever after. It is not supposed there that being mistress of a house does away with the necessity for

the invigorating breeze of heaven, or that matronly cares and duties are in themselves so exhilarating and health-giving that the walks and rides, so essential to the young lady, can be given up with impunity when nerves and strength are additionally taxed in the new sphere to which marriage has called her. But is it not too common a thing in our own country for people to think that though it may possibly be well enough for care-free girls to roam about the fields, or even to busy themselves somewhat in the manufacture of that anti-domestic, and therefore very doubtful, commodity known as 'street-yarn,' yet that same liberty must be rigidly denied to even younger females whose inability to do likewise consists in the simple fact that they happen to have the prefix of 'Mrs.' attached to their names. The biblical injunction to wives to be keepers at home, is made to signify far more in the estimation of gravely judging mothers and aunts than the apostle ever intended.

"Nothing is more truly wholesome than exercise in the open air, with the genial and invigorating influences of sunlight and a pure atmosphere to impart healthful color to the skin, vivify the blood, and enliven and strengthen the whole system. One who has not been led to look especially at this subject can scarcely believe how truly nature is her own best physician, and how surely, if sought in her native haunts, she administers not only to the 'mind diseased,' but also to the failing body.

"The writer of this knew a lady who was threatened in her younger years with blindness, for which medical skill could offer no prevention or cure. She was told that her only chance for recovery was to go into the country and try gardening. It would improve her health, at least, and might possibly do what nothing else could—restore her failing sight. Her husband, a merchant in one of our large cities, sold out his large business and retired to a pretty village where a few acres gave her the opportunity she sought. The cultivation of flowers, entered into as a remedial agent, became, in time, a passion with the fair devotee. To garden plots and greenhouse, she soon added landscape gardening. A brook that wandered in native simplicity through the grounds was formed into mimic ponds, and tiny cascades laughed in the sunlight. Arbors, groves, inviting walks, lovely vistas, and all the combinations of rural beauty which exquisite taste and abundant means could give to a spot of great natural advantages, sprang up beneath her direction; and much of the actual labor was accomplished by her own hands. Fruits are the natural accompaniments of flowers, and before long she turned her attention to horticulture also. Berries and the large fruits flourished, like everything else, under her skillful touch. During the entire season in which out-of-door exercise could be carried on, she was

at her post, arrayed in garden hat and gloves, from early morn till three o'clock in the afternoon. Help from stronger hands was always at her command when needed; but much of the actual labor of sowing, weeding, transplanting, training, pruning and gathering of the produce was accomplished by herself. And, yet, she was no amazon, let it be said to the delicate lady who turns in disgust from this true picture of out-door life. Her years have numbered more than half a century, yet you cannot find in any hall of fashion or indolence so youthful, so beautiful, so charming a woman. Her cheek has the genuine wild-rose bloom, and her soft, dark eyes show no symptom of the malady that once threatened them. Scarcely a silver thread mixes with the glossy brown hair that folds over a brow as smooth and delicate as a girl's. Her figure is erect and graceful, and her manners have the charm and freshness which the woods and waters, and the thousand innocent delights of such a life as hers, must bring to the appreciative soul.

"Many a mother has very little idea how gratifying it is to the children of the household to have her interested in matters outside of the kitchen and mending basket. A twilight walk, a stroll in the woods, a picnic, a berrying excursion, with 'mother' for the presiding genius of the occasion, makes such a day one to be marked with a white stone and remembered forever afterward. The writer of this, long since past her youth, has before her mind's eye, at this moment, a scene which occurred in her very earliest years—a simple, rustic picture, but one which stands out in far brighter colors than any worldly pageant she has ever seen since. It was a 'strawberry festival' such as no 'city hall' ever witnessed; but one in which her mother, her little sick sister and herself participated. The plat of wild strawberries, not far from the house, had been discovered by the father's eye and pointed out to us at dinner-time. For the first and last time the pale, helpless child, the care-worn, yet smiling, mother, and the little girl went out together into the green fields and gathered the luscious fruit. Never was shunshine so bright as that which encircled with a halo of light the tender mother as she filled with ripe berries the lap of the laughing infant who clapped her hands and pulled buttercups and clover blossoms with a sweet gaiety seldom seen on her pain-marked features. The little child soon left us, and the mother, long years afterward, laid down the burden of life; but she who is left alone, of that happy trio, looks back to that summer's day as one of the happiest of her life."

A LONDON paper, in recounting a death, says: "The deceased lady died suddenly, without medical assistance, which came too late." To die without medical assistance is hardly complimentary.

Boys Wanted.

THERE are no boys now; so there can be no more men. We have lads and young masters, but no boys. Years ago, when America could boast of statesmen, there were boys all over the country—rugged, lively, ambitious boys. They played horse, rode down hill, broke colts, traded jack-knives, and were well hooted at when cheated. They husked corn, gathered butternuts, picked apples, took care of cattle, did chores for their board while going to school, cut cordwood, trimmed apple trees, plowed corn, and worked their way to manhood.

They knew how to sharpen fence-posts, shear sheep, milk cows, clear lands, cultivate farms, and work their way to honorable manhood. When they became men they did not fade like six-penny curtain calico, but came from each sudsing and rinsing in the school of experience better and braver men. They were born to labor, and thus ticketed to success. They grew up hardy, handy, reliable, and useful. Of such boys, great orators, ministers, doctors, and editors, were made. Such boys became good husbands. Some of them, perhaps, smelled of the furrow, the barn, or the workshop; but that was better than to smell of hops, resin, fusel oil, creosote, and whisky, as is now the fashion.

These boys became men. They had good muscle and excellent sense. They were not afraid of poverty; not afraid to work; not ashamed of poor friends or ragged relatives; for they were men in miniature. They had sense, pluck, honor, manhood, and the basis of success. Their fathers were proud of them. Their mothers warmed them with slippers and with their love. Their sisters were fond of them. There were boys in those days. But now the boys are scarce. It is not fashionable to be a boy—lads, masters, young gentlemen; stout Anglo-Saxon drawn down to a sickly lisp; kid gloves, patent leather boots, ruffled shirts, cigar-cases, private billiard cues, Sunday spees, paper collars, "girls," wine suppers, and doctors. It is not the thing to work as boys did years ago, when boys tanned woodchuck skins, then rubbed them down thin and solid for whiplashes. That rubbing was what did the work. The experiences of life, which force facts into young souls, and the eyes are the great teachers.

Men come from sterner stuff than this hot-house, petted, blanketed, superficial make-up men give their sons. The time was when boys swung flails, axes, crow-bars, beetles, mauls, and sledges—when they herded cattle, turned the soil, thought, studied, and worked their way into the harness of life till it fitted them easily, and they could work to advantage.

Fashion has taken the helm now. Boys must be petted until they are spoiled, as tomatoes are ripened in windows until they are rotted. The

boy now must be waited on. The old man must get up in the morning and build a fire, or wait at night to keep the house open till the young gentleman returns from the faro-bank or billiard-room. The old father must work, and the aged mother may weep; but the gay chap will have his clothes, jewelry and mustache salve, his nights out, and headaches in—for must he not keep up with other young men?

He must have his horse and cutter, or fancy team. His allowance and private circle of friends, it is not best for his parents to know, lest his chums think him off color. He grows up to be a sporting man, a politician, an office-holder, a defaulter, a hanger-on, if not to a rope, to the coat-tail of the society which tickled his infancy and damns his failure. He came from birth to manhood without being a boy. He is undeveloped; and, instead of being a useful man, becomes a rusty button on the string of failures.

Give us more boys, the good old kind of brave, plucky, working, thinking boys. The demand for them, and for the great men they make, is increasing.—*Pomeroy.*

YOUNG MAN, DEPEND ON YOUR OWN EFFORTS.

—Fight your own battles. Hoe your own row. Ask no favors of any one, and you will succeed a thousand times better than those who are always beseeching some one's patronage. No one will ever help you as you can help yourself, because no one will be so heartily interested in your affairs. The first step will not be such a long one, perhaps; but, carving your own way up the mountain, you make each one lead to another, and stand firm in that while you chop out still another. Men who have made their fortunes are not those who had five thousand dollars given them to start with, but started fair with a well-earned dollar or two. Men who have, by their own exertions, acquired fame have not been thrust into popularity by puffs, begged or paid for, or given in a friendly spirit. They have outstretched their hands and touched the public heart. Men who well love, do their own wooing; and I never knew a man to fail so signally as one who had induced his affectionate grandmamma to speak a good word for him. Whether you work for fame, for love, for money, or for anything else, work with your hands, heart, and brain. Say, "I will," and some day you will conquer. Never let any man have it to say, "I have dragged you up." Too many friends hurt a man more than none at all.—*Grace Greenwood.*

A MEDICAL journal estimates that the people of the United States pay one hundred and twenty-five million dollars yearly for physicians' services and for medicines. They spend a good deal more than that for liquors and other things to make them sick.

Overtaxing the Brain.

BRAIN-WORK is healthful. Statistics show, as far as statistics can reach a subject so complex, that in our modern society those who live exclusively or mainly by mental labor—clergymen, lawyers, physicians, artists, and men of letters—live, on the average, ten or fifteen years longer than those who live exclusively or mainly by muscular labor. Clergymen especially—as I long since pointed out, and the discovery has been confirmed by many observers—live about as long as farmers and very much longer than mechanics and artisans. The causes for this greater healthfulness and longevity of the intellectual classes are manifold. Better sanitary knowledge, more careful obedience to the laws of mental hygiene, high social comforts, and freedom from depressing surroundings—all these factors go hand in hand with the inherent healthfulness of brain-work to make a high standard of longevity among brain-workers. The great and wonderful increase in average longevity under civilization is explained in a similar way.

There is a point, however, at which brain-toil becomes a dissipation, and, instead of being life-lengthening, it is life-shortening. This point varies with different individuals, and with the same individual at different times.

One of the great, growing evils of our time is the temptation that continually besets our mercantile and literary classes, especially in our large cities, to pass this safety point, to go beyond the limit where labor of the brain is healthful.

Without attempting to exhaust a subject which is large enough for a volume, I may here give one or two practical suggestions, derived from my experience in the treatment of nervous diseases, that may perhaps be of service to the very large class who suspect that they are overtaxing the brain, and to the much larger class who are doing so without suspecting it.

1. Persistent sleeplessness is a symptom that should always bring home to us the query whether we are not in some way overworked or overwired. Inability to sleep is one of the most constant precursors and accompaniments of cerebral exhaustion and decline. I have been informed by excellent and direct authority that Mr. Greeley stated during the last campaign that for fifteen years he had not had a good sound sleep. To those of us who have been accustomed to see him dozing on the horse-cars, in the omnibuses, and at church, this statement seems quite surprising; but it is probable that by these extemporaneous naps he sought to make up for the wakeful hours of the night.

Sleeplessness is sometimes the prayer of the cerebral lobes for relief from work and worry, and it should never go long unanswered. Some of the greatest and healthiest natures of the world, like Goethe and Thorwaldsen, have had a

“talent for sleeping,” which made all their other talents shine at their best, for the brain is never so brilliant as just after fully awaking from sound repose. Sir Walter Scott found by experience that his mind was clearest for thinking out his novels just after rising, and, for that reason, he took pains to prolong as much as possible his morning toilet; and in the same way we may explain the fact that Calvin loved to compose while lying in bed.

In great and pressing crises, when our work and our causes for worry are trebled, the temptation is very strong to cut short the hours of sleep; but these are just the occasions when, if possible, we should sleep the most. General Grant is credited with the statement that he owed the preservation of his health during the late war to the fact that, come what might, he always would have his eight or nine hours' sleep. At one time, during the Vicksburg campaign, I believe, he was unable to obtain this, and then he began to suffer. Gladstone has declared that when he enters his home he leaves the cares of state beyond him.

Sleep is food for the brain. If a penny saved is a penny earned, then to economize nerve force by rest is, within certain limits, to supply nerve force by eating and drinking.

The motto of the overtaxed brain-worker should ever be: More sleep, and as much as possible of folding of the hands to sleep. By day or by night, after meals or before, early or late, in the horse-car or on the ferry-boat, we should welcome each desire to doze as an angel from Heaven. The habit of very early rising—which, under the old dispensation, before the era of the telegraph, steam-power, the press, and other agencies that rob us of our nerve force, was a virtue—we in this year, 1873, should with all our might avoid. Early to bed and late to rise, makes the modern brain-toiler healthy and wise.

2. Mental despondency and moral decline, especially in old age, ought to cause us to look well to our ways and see whether we are not doing and suffering too much.

The moral and reasoning faculties constitute the crown of humanity. They are the highest and most complex development of the mind; and, consequently, they are the most delicate to receive impressions of evil, the first among the mental powers to hang out the signal of distress when the brain is in danger.

When a man who has previously been kind, affectionate, happy, and hopeful, suddenly or gradually becomes irritable, ugly, excessively depressed and despondent, and when these symptoms continue as though they had come to stay, then we may be well assured that something is wrong in the upper story. Some slight trouble, it may be; but one which, neglected, may lead to physical bankruptcy.

The meaning of such symptoms is: Resign

that worrying station; call in the aid of younger brains; let that book you hoped so soon to launch, rest longer on the stocks; take in a reef—a double one, if possible—and prepare for a storm that may tax all your skill and patience before you are safely through it.

* * * * *

To work hard without overworking, to work without worrying, to do just enough without doing too much—these are the great problems of the future. Our earlier Franklin taught us to combine industry with economy; our “later Franklin” taught us to combine industry with temperance; our future Franklin—if one should arise—must teach us how to combine industry with the art of taking it easy.—*George M. Beard, M. D.*

Increased Use of Tobacco.

THE use of tobacco is manifestly increasing in this country to an alarming extent. The high price of the weed, caused by taxation, has no perceptible influence in deterring persons, even in indigent circumstances, from its excessive use. The positive injury, physically and morally, produced by smoking and chewing tobacco can hardly be overestimated. A case of tobacco-poisoning occurred in New York recently, and a gentleman, in communicating an account of it to a journal, remarks as follows:—

“The victim was of exactly my own years, and a companion from early boyhood. For thirty years, at least, he has been a daily smoker of the choicest cigars; but, in all his other habits, temperate and regular—and of excellent constitution—one who, of all men, would have laughed at the suggestion that tobacco was killing him. A week ago last Sunday night, he was stricken with the progressive paralysis characteristic of nicotine, and on Sunday night he died. His death was most pitiful. First, sight was lost, then speech, then motion of the neck, then motion of the arms, and so on throughout the body; and he lay, for a week, unable to move or make a sign, save a pitiful, tongueless, inarticulate sound, which sometimes rose to almost frantic effort, all in vain, to make known what he wished to say to his sympathizing family and friends. His consciousness and mental faculties were left unimpaired till within two hours of the last, to aggravate to the uttermost the horror of his situation. The sense of hearing was left unimpaired, so that he was conscious of all around him, while as incapable of communication with them as if dead, save by a slight sign of assent or dissent to a question. The doctors were fully agreed that tobacco was the sole cause of this stroke.”—*Sel.*

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WHAT is talent worth if kept locked up in one's bosom? Just what a beacon light would be if inclosed in cast-iron instead of glass.

Light and Digestion.

VERY intimate relations exist between the sun and digestion. Digestion and assimilation become weak and imperfect if the man or animal is not daily exposed to the direct rays of the sun. Mr. P., one of our merchants, came to see me about his stomach. Dyspepsia was written all over his face, was shown in his movements, and heard in his voice. The conversation between us was essentially the following:—

“Doctor, if you will excuse a street vulgarity, I am ‘played out.’ I can’t digest, I can’t work, I have lost my courage, I fear I must stop.”

“Tell me about your diet.”

“If you will excuse me, I know that it is all right. I have studied the subject, and I know my food is all right.”

“How about your exercise?”

“I have a little gymnasium in my store, and exercise an hour or two every day. I sometimes tire myself out with these exercises.”

“How about your sleep?”

“Why, Doctor, I go to bed every night with the chickens. At any rate, I am always in bed by nine o’clock, and I rise by six o’clock, in the morning, take a bath, a plain breakfast, and go to my counting-room. Once in the forenoon and once in the afternoon, I exercise in my gymnasium half an hour or so, but I am getting worse all the time. Isn’t it curious? My wife thinks I must have a cancer in the stomach. Nothing seems to help me. I live the most physiological life, but my digestion grows worse and worse.”

“About your counting-room; is that light? is it sunny?”

“No, that is one nuisance we have in our store. The store is every way pleasant, only that the counting-room is so dark we have to use gas nearly all the time.”

“That’s it, Mr. P., that explains your cancer.”

“Of course you don’t mean that; but I suppose it would be better if the counting-room was sunny.”

“Why, Mr. P., no plant or animal can digest in the dark. Try it. Plant a potato in your cellar. Now watch it carefully. If there is a little light, that potato will sprout and try to grow. But surround it with the best manure, water it, do the best you can for it, only keep it in the dark, it cannot digest and grow. See how slender and pale it is. Now open a window in another part of the cellar and notice how the poor, hungry thing will stretch that way. Or give the stalk a little twist and see how it will lie down. It has no strength to raise itself again. No matter how much of the best food and drink you give it, it can’t digest. The process of digestion, the great function of assimilation, can’t go on without the sunshine. Why, sir, with your excellent habits, if your counting-room were in a flood of sunlight,

you would be better in a week, and well in a month. Mr. P., did you ever go into the country late in the summer? Of course you have been. Well, did you never notice where grain is growing in orchards that the part under the trees is smaller than that outside and away from the trees? The land is actually richer there. For years the leaves have fallen and decayed, but notwithstanding this, the wheat is only half size and never fills well. Now what is the difficulty? The sun shines upon it more or less. Yes, that is true, but that under the trees does not receive as much sunshine as that away from them. That which is thus partly in the shade can’t digest so well. Why, sir, if you will move your counting-room up-stairs, in front, and stand where the sun can have a chance at you, even though it is only three or four hours a day, you will begin to digest your food better within three days. Have you ever noticed that the only grapes that become perfectly ripe and sweet, that the only peaches that take on those beautiful red cheeks, and offer that luscious sweetness, are those that are on the outside, entirely uncovered by the leaves, and perfectly exposed to the sun? God’s laws are the same in the animal world. It is just as true that the only girls with red cheeks and sweet breaths, the only girls who become fully ripe and sweet, are those who baptize themselves freely in God’s glorious sunshine. Don’t you see a good many pale girls in your store, girls with bloodless, half-baked sort of faces, whose walking, whose voices, whose whole expression are devoid of spirit and force? Those girls are in the green state. Look at their lips and cheeks; they are not half ripe. Send them out into the country, let them throw away their parasols, put on their little jockey hats, and live out in the sunshine three months, and I would give more for one of them in any work requiring soul and spirit than for a dozen of those pale things that live in the shade. A pale woman! She makes a very good ghost, but not much of a woman.”—*From Talks About People’s Stomachs.*

Necessity of Sleep.

A PROMINENT writer says: “There are thousands of busy people who die for want of sleep every year. Sleeplessness becomes a disease, and is the precursor of insanity. We speak of sleep as the image of death, for it is the period in which the waste of the system ceases, or is reduced to the minimum. Sleep repairs the waste waking hours have made. It builds the system. The night is the repair shop for the body. Every part of the system is thoroughly overhauled, and the organs, tissues and substances are replenished. Waking consumes and exhausts; sleep replaces and repairs. A man who would be a good worker must be a good sleeper. A man has as much force in him as he has provided for in sleep. The

quality of mental activity depends on the quality of sleep. Men need, on an average, eight hours of sleep a day. A lymphatic temperament may require nine; a nervous temperament, six or seven. A lymphatic man is sluggish, moving and sleeping slowly. But a nervous man acts quickly in everything. He does more in one hour than a sluggish man in two hours; and so in his sleep. Every man must sleep according to his temperament, but eight hours is the average. Whoever by work, pleasure or sorrow, or any other cause, is regularly diminishing his sleep, is destroying his life. A man may hold out for a time, but the crash will come, and he will die.

A Scene from Life.

A YOUNG man entered the bar-room of a village tavern, and called for a drink. "No," said the landlord, "you have had too much already. You have had delirium tremens once, and I cannot sell you any more." He stepped aside to make room for a couple of young men who had just entered, and the landlord waited upon them very politely. The other had stood by, silent and sullen, and when they had finished, he walked up to the landlord, and thus addressed him: "Six years ago, at their age, I stood where those young men now are. I was a man of fair prospects. Now, at the age of twenty-eight, I am a wreck, body and mind. You led me to drink. In this room I formed the habit that has been my ruin. Now sell me a few glasses more, and your work will be done. I shall soon be out of the way; there is no hope for me. But they can be saved; they may be men again. Do not sell it to them. Sell to me, and let me die, and the world will be rid of me—but for Heaven's sake sell no more to them." The landlord listened, pale and trembling. Setting down his decanter, he exclaimed, "God helping me, that is the last drop I will sell to any one!" And he kept his word.—*Sel.*

AN experiment, lately made at the Pyrotechnic School of Paris, will comfort the heart of Mr. Trask, the anti-tobacco apostle. One of the professors inquired into the habits of the one hundred and sixty students there, and then made a comparison between their devotions to study and to smoke. He found that one hundred and two were smokers, and fifty-eight never used, or said they never used, the noxious weed. He then found that in each grade of the school the students who did not smoke outranked those who did smoke, and that the scholarship of the smokers steadily deteriorated as the smoking continued. On account of several trustworthy reports of such a nature, the Minister of public instruction in France issued a circular to the directors of colleges and schools forbidding tobacco to students, as in-

jurious to physical and intellectual development. The *Catholic Guardian* is authority for the statement that the youth of the Catholic colleges are not allowed to use tobacco in any way, and to this fact is attributed much of their proficiency in mathematics and the other branches which wear more particularly on the intellects than some others.—*Sel.*

In-growing Toe-Nails.

A CORRESPONDENT of the *British Medical Journal* takes the ground that no cutting operation is necessary for the complete and rapid cure of in-growing toe-nails. If a small, thin, flat piece of silver plate be bent at one edge into a slight deep groove, and, after the toe has been poulticed twenty-four hours, slipped beneath the edge of the nail, so as to protect the flesh from its pressure, and the rest of the thin plate bent round the side and front of the toe, being kept in position with a small portion of resin plaster passed round the toe, a speedy and almost painless cure will take place; and the patient, after the first day, has the additional advantage of being able to walk. This method has been followed in numerous cases with uniform success.

Dr. Blower, of Liverpool, states in the same journal that he has, for the past twenty years, employed compressed sponge successfully in the treatment of in-growing nails. He renders the sponge compact by wetting and then tying it tightly, until it is thoroughly dry. A bit of the sponge, in size less than a grain of rice, is placed under the nail, and secured by strips of adhesive plaster. In this way the point of the nail is kept up from the toe until the surrounding soft parts are restored to their normal condition by appropriate means.

MAKING PEOPLE HAPPY.—A poetical writer has said that some men move through life as a band of music moves down the street, flinging out pleasure on every side through the air to every one, far and near, that can listen. Some men fill the air with their strength and sweetness, as the orchards in October days fill the air with ripe fruit. Some women cling to their houses like the honeysuckle over the door; yet, like it, fill all the region with subtle fragrance of their goodness. How great a bounty is it to hold the royal gifts of the soul that they shall be music to some, fragrance to others, and life to all. It would be no unworthy thing to live for, to make the power which we have within us the breath of other men's joy; to fill the atmosphere in which they stand with a brightness which they cannot create for themselves.

JEWELS in the bottom of the sea are not as valuable as blades of grass on the shore.

MRS. WHITE'S DEPARTMENT.

THE HAND THAT ROCKS THE WORLD.

Blessings on the hand of woman ;
 Angels guard its strength and grace
 In the palace, cottage, hovel,
 Oh ! no matter where the place.
 Would that never storms assailed it,
 Rainbows ever gently curled ;
 For the hand that rocks the cradle
 Is the hand that rocks the world.

Infancy's the tender fountain ;
 Power may with beauty flow ;
 Mothers first to guide the streamlets,
 From their souls unresting grow—
 Grow on for the good or evil,
 Sunshine streamed or darkness hurled ;
 For the hand that rocks the cradle
 Is the hand that rocks the world.

Woman, how divine your mission
 Here upon our natal sod !
 Keep, O keep the young heart open
 Always to the breath of God.
 All true trophies of the ages
 Are from mother love imppearled ;
 For the hand that rocks the cradle
 Is the hand that rocks the world.

Blessings on the hand of woman ;
 Fathers, sons, and daughters cry,
 And the sacred song is mingled
 With the worship in the sky—
 Mingles where no tempest darkens,
 Rainbows evermore are hurled ;
 For the hand that rocks the cradle
 Is the hand that rocks the world.

—William Ross Wallace.

Proper Education.

THE prophet Ezekiel describes a class whose example Christians should not imitate. "Behold, this was the iniquity of thy sister Sodom, pride, fullness of bread, and abundance of idleness was in her and in her daughters, neither did she strengthen the hand of the poor and needy."

We are not ignorant of the fall of Sodom because of the corruption of its inhabitants. The prophet has here specified the particular evils which led to dissolute morals. We see the very sins now existing in the world which were in Sodom, and which brought upon her the wrath of God, even to her utter destruction.

It is important in the education and moral training of children and youth, to the formation of characters on which depend their own happiness and the happiness of those with whom they associate, that they are taught to cultivate habits of self-denial and a love to do good to others, as Christ in his life has given us an example.

In all the teachings of Christ, he sought to impress upon the minds of his hearers that their happiness did not consist in self-gratification and

amusements, but in the cultivation and exercise of useful lives in self-denying benevolence, as he was giving them an example in his own life. Idleness is sin in the wealthy as well as in those who are poor. Riches are a snare when their possession relieves from responsibilities which God designed we all should bear whether we are rich or poor. If God has intrusted to us riches, it is for the purpose of using his bounties to do good, to bless the needy, and thus glorify him. Said Christ, "How hardly shall they that have riches enter into the kingdom of God !" He expressly warned his hearers, "Take heed and beware of covetousness, for a man's life [health and happiness] consisteth not in the abundance of the things which he possesseth."

The Lord illustrates how he estimates the worldly wealthy who lift up their souls unto vanity because of their earthly possessions, by the rich man who tore down his barns and built greater, that he might have wherewith to bestow his goods. Forgetful of God, he acknowledged not from whence came all his possessions. No grateful thanks ascended to his gracious Benefactor. He congratulated himself, "Soul, thou hast much goods laid up for many years ; take thine ease, eat, drink, and be merry." The Master, who had intrusted to him earthly riches with which to bless his fellow-men and glorify his Maker, was justly angry at his ingratitude, and said, "Thou fool, this night thy soul shall be required of thee ; then whose shall these things be, which thou hast provided ? So is he that layeth up treasure for himself, and is not rich toward God." An extensive fortune, or any degree of wealth, will not secure the favor of God. All these bounties and blessings come from him to prove and develop the character of man.

Men may have boundless wealth, yet if they are not rich toward God, if they have no interest to secure to themselves the heavenly treasure and divine wisdom, they are accounted fools by their Creator. Labor is a blessing. It is impossible for us to enjoy health without labor. All the faculties should be called into use in order to be properly developed, and that men and women may have well-balanced minds. If the young had been given a thorough education in the different branches of labor, and had been taught labor as well as the sciences, their education would have been of greater value to them.

The rich have greater temptations to neglect the cultivation of the very things which are essential to their health and happiness in this life than their less wealthy neighbors. The wealthy are frequently led to encourage indolence and self-indulgence, and they fail to educate their children to develop valuable characters, such as God estimates, and which will give them moral worth fit for the society of the heavenly angels.

I clip from an exchange the following on

"EVERY-DAY RELIGION.

"We must come back to our point, which is not to urge you all to give yourselves to mission work, but to serve God more in connection with your daily calling. I have heard that a woman who has a mission makes a poor wife or a bad mother; this is very possible, and at the same time very lamentable; but the mission I urge, is not at all of this sort. Dirty rooms, slatternly gowns, children with unwashed faces are swift witnesses against the sincerity of those who keep other vineyards and neglect their own. I have no faith in that woman who talks of grace and glory abroad, and uses no soap and water at home. Let the buttons be on the shirts, let the children's socks be mended, let the house be as neat as a new pin, and the home be as happy as home can be. Serve God by doing common actions in a heavenly spirit, and then, if your daily calling only leaves you cracks and crevices of time, fill them up with holy service.—*Spurgeon.*"

I am delighted to find the following in that invaluable work entitled "The Young Lady's Counselor," by Rev. Daniel Wise, A. M.; it can be obtained at any Methodist book rooms:—

"Permit me, by way of illustrating another feature of this question, to lead you into the sitting-room of a respectable and pious lady. She is neatly but plainly attired, and is busy, with the aid of a servant, dusting and cleaning the room. The door-bell rings, and the girl hastens to see who is the visitor. She finds the lady's pastor at the door, and, without ceremony, ushers him into the sitting-room. The lady's face is suffused with blushes, as she confusedly lays aside her dusting-brush and offers her hand to the minister, saying, 'Sir, I am ashamed you should find me thus.'

"Let Christ, when he cometh, find me so doing," replies her pastor.

"What! sir; do you wish to be found in this employment?" earnestly inquired the astonished lady.

"Yes, madam, I wish to be found faithfully performing the duties of my mission, as I have found you fulfilling yours."

"And was not the minister right? He recognized a great, but a despised, truth. He saw as high a moral importance in the humble task of the lady as in the missions of Gabriel to the ancient prophets; for both did the will of God in their respective spheres, and diversity of sphere does not necessarily involve real inferiority in the employment. The lady in her home could exhibit an affection as true, and an obedience as sincere, as the angel in his sphere. It would be difficult to show wherein her employment was morally and necessarily inferior to his, inasmuch as the character of an act derives all its moral greatness, not from the sphere of the actor, but from its conformity to the will of God.

"Do you perceive the bearing of my illustration upon the question of woman's sphere? It shows you that your sex is not necessarily inferior to the other, because it is called, by God and nature, to act in a different sphere. Your exclusion from the stage of public life does not imply your inferiority—only the *diversity* of your powers, functions and duties. Indeed, it would defy the loftiest powers to show wherein the work, the mission of the sphere of woman, is a whit beneath that of her more bustling and prominent companion, man.

"What is the sphere of woman? Home, the social circle. What is her mission? To mold character, to fashion herself and others after the model character of Christ. What are her chief instruments for the accomplishment of her great work? The affections. Love is the wand by which she is to work moral transformations within her fairy circle. Gentleness, sweetness, loveliness and purity are the elements of her power. Her place is not on life's great battle fields. Man belongs there. It is for him to go forth armed for its conflicts and struggles, to do fierce battle with the hosts of evil that throng our earth and trample upon its blessings. But woman must abide in the peaceful sanctuaries of home, and walk in the noiseless vales of private life. There she must dwell, beside the secret springs of public virtue. There she must smile upon the father, the brother, the husband, when, returning like warriors from the fight, exhausted and covered with the dust of strife, they need to be refreshed by sweet waters drawn 'from affection's spring,' and cheered to renewed struggles by the music of her voice. There she must rear the Christian patriot and statesman, the self-denying philanthropist and the obedient citizen. There, in a word, she must form the character of the world, and determine the destiny of her race. How awful is her mission! What dread responsibility attaches to her work! Surely, she is not degraded by filling such a sphere. Nor would she be elevated, if, forsaking it, she should go forth into the high-ways of society and jostle with her brothers for the offices and honors of public life. Fame she might occasionally gain, but it would be at the price of her womanly influence.

"Fancy yourself far out at sea, in a noble ship, contending with a furious storm.

'Beneath is one wild whirl of foaming surges;
Above, the array of lightnings, like the swords
Of Cherubim, wide brandished, to repel
Aggression from Heaven's gates.'

Behold, amidst this scene of grandeur, the stormy petrel gliding up the face of a huge wave, darting above the foam of a breaker, or sweeping along the watery valleys as composedly and as naturally as it ever swept over the same sea in an hour of calm. Behold, too, another bird, whirling and darting above the spray with a cry of seeming

despair; now flying before a monster sea, and anon struggling to keep its wet and weary wings from folding into helpless inaction.

"Tell me, lady, why this little trembler is in so pitiful a plight, while the stormy petrel gambols freely among the waves. You cannot answer. Then listen. The petrel is in its appropriate sphere. The little trembler is a land-bird, tempted, at first, by sunny weather, to wander among the islands, and driven, at last, by a strong wind to sea. He is out of his sphere; and hence his quiet has fled, his song is silenced and his life endangered. God made him for the land. The grove is his home, and his sphere is among the flowers.

"It is thus with the entire creation. Everything has its appointed sphere, within which alone it can flourish. Men and women have theirs. They are not exceptions to this truth, but examples of it. To be happy and prosperous, they must abide in them. Man is fitted for the storms of public life, and, like the petrel, can be happy amid their rudest surges. Woman is formed for the calm of home. She may venture, like the land bird, to invade the sphere of man, but she will encounter storms which she is utterly unfitted to meet; happiness will forsake her breast, her own sex will despise her, men will be unable to love her, and when she dies she will fill an unhonored grave.

"That great patriot, John Adams, paid a high compliment to the power of your sex, when, in an hour of deep political gloom, he wrote the following lines to his wife. Alluding to the attack of the British on the city of Philadelphia, he says: 'I believe the two Howes have not very great women for their wives; if they had, we should suffer more from their exertions than we do. A smart wife would have put Howe in possession of Philadelphia a long time ago.'

"This remark of the statesman, playfully as it is expressed, was, nevertheless, the offspring of an opinion which he seriously maintained concerning the influence of women. He contended that much of the merit of the great men whose names are on the roll of fame, belonged to their sisters, wives and mothers. Hence he attributed the faults of Howe to the lack of high merit in his wife.

"John Quincy Adams, the 'old man eloquent,' once paid the following precious tribute to his mother: 'It is due to gratitude and nature that I should acknowledge and avow that such as I have been, whatever it was, such as I am, whatever it is, and such as I hope to be in all futurity, must be ascribed, under Providence, to the precepts and example of my mother.'

"Very similar is the confession of the celebrated German philosopher, Kant, who says, 'I shall never forget that it was my mother who caused the good which is in my soul to fructify.'

"Nor are the pleasures of success less delight-

ful in a woman's breast because she attains it through another. If a rich tide of joy flows through the breast of an applauded hero, a triumphant statesman, or a useful philanthropist, there is another equally delightful in the bosom of the woman who is conscious that, but for her, the great man would never have mounted the pedestal of his greatness.

"Away, then, from your heart, young lady, with all the vagaries of these pseudo reformers! Treat their crude opinions with the contempt they deserve. Glory in the true greatness and real sublimity of the sphere you are called to fill. Labor to qualify yourself to fulfill your mission with distinguished success. Obtain, by persevering self-culture, those high qualities which lift one mind above another. For you must not fail to remember that you cannot communicate high qualities and noble sentiments to other minds unless they first exist in your own. Cultivate, therefore, the loftiest virtues, the highest elements of great character.

"Such being your sphere, with its weighty responsibility, you require the aids of religion to fill it with propriety and effect. High qualities are not the offspring of an ungracious nature. There is too much of the moral weakness of depravity in the human soul to permit its harmonious and useful development without the restraints and aids of grace. Where the spirit of revealed religion does not reign, there will be moral deformity. Selfishness with its forbidding aspect, pride, envy, hate, discontent, fretfulness, ill-temper, and troops of kindered vices, will wound and sear your character, diminish your influence, and disturb your peace. But, by surrendering yourself to the claims and influences of the Saviour, your life will be as a fruitful branch in a beautiful vine. The fruits of the spirit will adorn it. Clusters of graces, such as love, joy, peace, gentleness, goodness and meekness, will give it attractiveness. Its beauty will impress the minds about you, and act as a mighty restraint from sin upon them as they wander over the earth. Your image will stand before a brother, a husband or a father, as a good genius in his hour of temptation, and forbid the triumph of the tempter.

"To impress such an image of yourself upon some loved mind within your circle is worth a lifetime of effort. And you have no effectual means of accomplishing so noble a task but by communing deeply with the spirit of Jesus. Resolve, therefore, to live at his footstool, and he will inspire you with every high and holy quality necessary to enable you to fulfill your earthly mission."

E. G. W.

If you have great talents, industry will improve them; if moderate abilities, industry will supply their deficiency. Nothing is denied to well-directed labor; nothing is ever attained without it.

SCIENTIFIC.

Science.

THE marvellous advances made in the various branches of the material sciences during the last few years are truly surprising. And while these wonderful developments are of the most intense interest to the student of nature, many of them are of such a character that even the veriest tyro in scientific attainments can, to a great extent, appreciate and understand them. How different is this from the condition of the world a few centuries ago! Then, all of true science which existed, was so intermingled with superstitions, conjectures, absurd and ridiculous theories, and mystical, meaningless ceremonies, that the common people were entirely debarred from scientific investigation. And not only was this the case, but the few men who made pretensions to great attainments in this direction basely imposed upon the credulous masses, making their knowledge subservient to their own despicable ends instead of seeking to benefit their fellow-men, by this means gaining such an ascendancy over the unenlightened people that they were regarded rather as gods than as human beings. Proud monarchs bowed at their feet with reverential awe, to do them homage.

But those days of blindness and superstition are in the past. To-day, the wonders and beauties of science are unfolded before us with such simplicity that all can feast upon them, and find, in so doing, not only an inexhaustible source of pleasant and profitable thought, but the grandest and most incontrovertible evidences of a great and wise Creator and upholder of all nature.

Next to the Bible, this earth affords nothing more refining, more elevating, more ennobling, than the study of the great library of nature. Many and varied are the volumes which she presents for our perusal; and to those whose minds are uncontaminated by the demoralizing influence of the pernicious sensational literature so abundant at the present time, her teachings will afford a golden harvest of pure, elevated, grand and beautiful thoughts, and will fill the heart with a pleasure as far surpassing that which can be derived from folly and frivolity as the glorious beams of the noon-day sun surpass in brightness the feeble glimmering of the remotest star.

Light and Electricity.

MEAGER and crude indeed are our ideas of the celerity with which the operations of nature are carried on. We gaze with wonder and amazement at the lightning express train as it dashes along at the rate of thirty or forty miles an hour. With perhaps still greater wonder we gaze at the little humming bird poised above a flower, apparently unsupported, its delicate wings being in such rapid motion as to be invisible. But the express train and the wings of the humming bird move at slower than a snail's pace when compared with the speed of light which could travel seven times

around the earth in a second. Yet, almost incredible as this seems to be, light is a slow traveler compared with electricity. This subtle agent requires but a single second to span the space between us and the moon, and will twelve times encircle the globe in the same period. And yet so far distant is the nearest star that even this swift-winged messenger could reach it only after a journey of more than two and one-fourth years.

The Interior of the Earth.

IT has been the almost universal belief for thousands of years that the interior of our beautiful globe was a molten mass, a surging sea of burning rock. Indeed, this opinion was most intimately interwoven with all the mythology of the ancients, and has also occupied quite an important place in modern theology. And not only has this notion been entertained by the illiterate and superstitious classes, but the most eminent philosophers of our own time have held it to be a necessary deduction from the principles of geology, claiming that the whole globe was once in a molten state, but had cooled sufficiently during the lapse of ages to cause the formation of a crust upon the outside of fifteen or twenty miles in thickness, while the interior still remained in the same melted condition. This fiery sea was supposed to be in perpetual commotion, its heaving billows ever seeking to burst its fragile bounds, giving rise to earthquakes, volcanic irruptions, etc.

Of late years, however, scientific men of distinction have frequently appeared who gravely questioned the truth of this theory, and recent developments in science have clearly established, that such a condition of the center of our earth is not only entirely improbable, but quite impossible. The phenomena of volcanoes and earthquakes are attributed to other causes which furnish an explanation entirely satisfactory.

A NEW PLANET.—In the year 1859, a round dark spot was seen crossing the face of the sun, which, by many, was supposed to be a new planet within the orbit of Mercury. A similar appearance has been noticed several times since, and according to astronomical calculations the same spot was again to appear upon the 24th of March, of the present year. The report comes from China that the event was observed at Shanghai at that time, and so the existence of this new planet, the ninth of the solar system is quite well established. This new world makes its circuit about the sun in a little more than thirty-four days.

THE *Boston Journal of Chemistry* declares that zinc is at least as virulent and fatal a poison as lead, its salts, when taken in small quantities, producing nausea; larger doses cause vomiting, with violent retching and cerebral distress. Some painters are poisoned by zinc paint, and suffer colic similar to that caused by lead. Water in contact with zinc, or "galvanized" iron, pipe, is charged to a greater or less extent with the chloride, the protoxide and the carbonate of zinc—all poisonous to those who use the water.

Items for the Month.

The REFORMER goes to press this month without the supervision of the editor, who has been traveling the past few weeks in the West. A note received at this Office informs us that his present P. O. address is Blackhawk, Colorado.

A Drouth.

UNTIL within the last three days, no rain has fallen in these parts for several weeks. The wells, springs, and cisterns, were beginning to fail, and vegetation had begun to look shriveled and scorched, while, in addition to the oppressive heat, clouds of dust often filled the air. We have had grave fears that the drouth has prevailed quite extensively, as the indications of the past month lead us to conclude that the ink of many of our contributors has also dried up. But as the last three days have brought the much-wished-for showers, to refresh and invigorate the thirsty, drooping plants, we also hope for a regular hurricane of spirited, pointed, appropriate articles from the pens of our contributors—interesting items of experience in health reform, short articles upon hygiene and kindred topics, new developments in science, etc., etc.

In order to sustain the acquired reputation of the HEALTH REFORMER as the best health journal in the land, we must have a large number of articles of the kind mentioned from which to select; and, in making this selection, we shall try to use our best judgment. Of course, all will see that some must be rejected; but we hope none will be discouraged if their articles are not published immediately, as in many cases they are carefully laid aside for future use.

We have received a lengthy communication from Mercersburg, Franklin Co., Pa., in which are set forth the plan and purposes of an Orphan's Hygeian Home. The institution is already in operation upon a small scale, Mr. Tobias Martin being the founder and proprietor. Mr. Martin proposes to conduct the Home in connection with a fruit farm, giving the children opportunity for light labor about four hours each day, the same time being spent in study. The institution is to be conducted upon strictly hygienic principles. There is no lack of applicants, who are received without distinction of race or color; the principal embarrassments under which the enterprise seems to labor are lack of means, and of an efficient person to act as matron. Those wishing to aid in this benevolent enterprise can obtain further particulars by addressing Mr. Martin at Mercersburg.

THOSE of our readers who have sent in inquiries concerning *cerebro-spinal meningitis* are referred to the article on this disease in the REFORMER for Oct., 1872.

OUR BOOK LIST.

THE books named below will be furnished by mail, post-paid, at the prices given. By the quantity, at the Office, or delivered at the express or R. R. freight offices, for cash accompanying orders, at one-third discount on those books published at this Office. Those books in this list not published by us will be furnished by us as low as by their publishers.

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