The Health Reformer.

OUR PHYSICIAN, NATURE: OBEY AND LIVE.

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TO A YOUNG PHYSICIAN.

THE paths of pain are thine. Go forth
With healing and with hope;
The suffering of the sin-sick earth
Shall give thee ample scope.

Smite down the dragons fell and strong,
Whose breath is fever fire;
No knight of fable or of song
Encountered foes more dire.

The holiest task by Heaven decreed,
An errand all divine,
The burden of our mortal need
To render less is thine.

No crusade thine for cross or grave,
But for the living man,
Go forth to succor and to save
All that thy skilled hands can.

Before the unvailed mysteries
Of life and death, go stand
With guarded lips and reverent eyes
And pure of heart and mind.

So shalt thou be with power endued
From him who went about
The Syrian hill-paths, doing good
And casting devils out.

That holy Helper liveth yet,
Thy friend and guide to be;
The Healer by Gennesaret
Shall walk the rounds with thee!—*Whittier.*

A LIBEL.—It is a shame to call a drunken man a drunken dog. Dogs never get drunk! It is also improper to libel the hog by saying that an intemperate man makes a hog of himself. Now, the hog is not a very polite animal, for he sometimes puts his foot in the dish, but he is not given to intemperance. Mr. Bergh ought to complain of the men who say that a bummer is a drunken brute. The brutes never use intoxicating liquors as a beverage. They are water drinkers, and they prefer cold water at all seasons of the year.

Bronchitis.

BY M. G. KELLOGG, M. D.

THIS is a disease in which the mucous membrane of the bronchial tubes, or air passages of the lungs, is inflamed. In its earliest stages, it is simply a common cold. Bronchitis does not differ materially from what is usually known as catarrh, except in the location, and as catarrh is a disease so easily understood, I shall describe it and its causes, and then by applying this description to bronchitis, this disease also will be fully understood. Bronchitis and catarrh are diseases caused by exposure to cold, not so much, however, by cold air brought in contact with the mucous membranes of the air passages in breathing, as from the application of cold and wet to the external integument.

In the state of health the mucous membranes are perpetually moist. The exhalation of this moisture, in a limited amount, constitutes an essential part of their functions. Whenever these membranes become inflamed, their ordinary secretions become altered. If the mucous membranes of the air passages of the nostrils and throat become inflamed, the secretion of mucus is at first suspended, the surface becomes dry and hot, the membrane speedily becomes swollen and thicker than before; and if the affected part is in the nostril, the air passages become so nearly closed that it is with difficulty that the patient can breathe through the nostrils. The sense of smell is perverted or lost. The affection often extends to the fronal sinuses (two large cavities in the frontal bone above the eyes, connected with the nasal cavity), causing headache, and a sense of fullness or oppression above the eyes. Sometimes the inflammation extends along the lachrymal duct to the eye, involving this organ also in the difficulty. After a short time, the inflammation reaches that stage in which a thin, watery fluid is thrown out (the serum of the blood), which is very irritating to the surface over which it passes. By degrees, this thin, serous fluid becomes thicker, more viscid, opaque, and yellow, and less irritating. The swelling of the membrane then diminishes, and it is less raw and sensitive. At length the secretion resumes its natural quality, and is reduced to its natural quantity, and the swelling of the membrane entirely disappears. This is the course of what is popularly called a cold in the

head. It is not unfrequently the case that this difficulty becomes chronic, and the watery and mucous discharges are constantly maintained. This is because that in the early stages of the disease the proper measures were not taken to remove the causes that occasioned the difficulty. The lachrymal duct becomes closed, at times, by a thickening of its walls, and, as a consequence, the water from the eyes passes off over the eyelid and down the cheek instead of through the nose. The Eustachian tube may also be affected by its walls becoming so thickened as to make it impervious. In this case, partial or total deafness is the result. If the disorder passes to the windpipe, it will occasion a constant tickling sensation if the inflammation be slight, or, if more severe, there will be a rawness and soreness of the part. In either case, there will be a constant hacking cough. If the disorder passes down into the smaller branches of the windpipe, in the bronchial tubes, it is then known as a cold in the chest, or, in medical language, it is bronchitis.

In bronchitis the bronchial tubes are affected in precisely the same manner as are those of the nostrils in catarrh. The membrane is first dry, then becomes swollen and irritable. The uneasy sensations prompt the action of coughing; the chest feels tight, stuffed, constricted. There are, at times, hoarseness, and a sense of roughness and soreness in the windpipe, and a dry cough which seems to arise from some irritation about the glottis.

Bronchitis, or catarrhal inflammation of the bronchial tubes, may be cured in a very short time if attended to in season; but if allowed to run unattended to, it soon becomes chronic. The structure of the membranes becomes changed, and it is a very difficult disease to manage. If unchecked, it soon becomes bronchial consumption, and carries the patient to an early grave.

Catarrh is usually a trivial disorder. It will in most cases terminate favorably to the patient in a few days if let alone, and if the patient will abstain from all stimulating food or drink, avoiding sudden changes of temperature and re-exposure to any of the causes of this malady. Persons who are unusually liable to take cold may overcome this habit by the use of the shower or sponge bath. They should begin in the summer with tepid water, and once or twice a week shower or sponge the entire surface of the body, always wiping themselves dry, and then rubbing and percussing the body with the dry hand until a glow is felt over the whole surface, being careful not to over-eat, and never eating when fatigued, sleeping in well-ventilated rooms.

TREATMENT.

In recent cases of catarrh and bronchitis, the patient should fast for one or two meals, and in the meantime take a hot bath for twenty minute or until the sweat starts, first wetting the head in cold water. As he leaves the bath, let him wash off with water ten or fifteen degrees colder than his bath, and then, after wiping dry, go to bed and rest. In chronic cases of bronchitis, especial attention must be paid to the dress. See that the limbs and extremities are warmly clad. Wear the garments loosely about the waist. Be sure to eat only healthful food, avoiding all greasy substances, and all butter and condiments of all kinds. If flesh is used, it should be in small quantities, and then only the lean portions should be eaten.

The patient should be careful not to over-eat, and should use graham flour, cracked wheat, oat grits, barley meal, hominy or hulled corn, with green corn, peas, beans, and fresh fruits and vegetables in the season of each. The patient should take a tepid sitz bath with warm foot bath for ten minutes, once in three or four days. He should also take a general bath once a week. The dripping sheet would be good, the temperature of the water being that which is the most agreeable to him. He should apply a cool compress to his chest and throat for thirty minutes every other day, with a hot fomentation to the shoulders at the same time, continuing this treatment for a week or ten days. Then, after omitting it for a week, resume the treatment. In very bad cases of catarrh in the head, when the bronchial tubes are not affected, take the sitz bath and dripping sheet as above directed, but instead of the compress and fomentation on the chest and shoulders, wear tepid compress over the liver every night for a week, then omit it for a week. Foment the region of the liver once a week for half an hour, and live for a week on rather an abstemious diet, moderating your labor to your strength. Do not adopt so rigid measures as to reduce the system much, as this is unnecessary.

Early Influences.

THERE can be no greater blessing than to be born in a cheerful, loving home. It not only insures a happy childhood—but it is almost sure to make a virtuous and happy manhood, and a fresh young heart in old age. I think it the duty of all parents to try to make their children's childhood full of love and proper joyousness; and I never see children destitute of them, through the poverty, faulty tempers, or wrong notions, of parents, without a heartache. Not that all the appliances wealth can buy are necessary to the free and happy unfolding of childhood in body or heart—quite otherwise, Heaven be thanked! But the children must at least have love in the house, and fresh air, and good play, and some good companionship out of it, otherwise young life runs great danger of withering, or growing stunted or sour, or, at best, prematurely old and turned in upon itself.

The Natural Cure of Disease.

THE following article is a synopsis of a lecture delivered in course before an Association of Physicians in Brooklyn, N. Y., by Prof. Samuel G. Armor, M. D., of the Long Island College Hospital. We were deeply interested in its perusal on account of the important truths which are advanced, and especially when considering the source from which it emanates. The article contains a very full elucidation of the great truth which we advocate; viz., that all the healing processes which take place in the human system are the work of nature rather than of drugs and medicines. Although we cannot, of course, indorse *all* the statements made, yet, coming as the article does from a professor of an allopathic college, being delivered as a lecture before an association of allopathic physicians, its testimony in favor of our positions is especially valuable.

"The study of therapeutics, as we shall see, is beset with many difficulties, none of which are more prominent than our want of knowledge of the natural history of disease. The bearing of this upon our therapeutic reasonings must be at once apparent. Usually we see but one side of the question, and find it difficult, therefore, to form a proper estimate of what belongs to *Nature* and what to *Art*. Drugs are administered, patients recover, and we suppose we have cured them; whereas our remedies may have had little or nothing to do with the recovery; very likely it took place in spite of our drugs.

"This mistake of sequence for a consequence appears to be one of the most natural to which the human mind is liable. We encounter it in every department of physical science, and in none, perhaps, more than in estimating the curative value of drugs. Many reasons might be assigned why this is so, one or two of which I may mention. In the first place, we have no distinct instruction in the natural history of disease—I mean uninfluenced by drugs. Nor have we any field for observation. Call to mind, if you can, a single instance in which you watched the course, progress, and termination of disease, uninfluenced by remedies of some kind.

"And we have not only no field for observation, but we find it difficult to create one. The natural instinct to seek relief from suffering and danger prompts all ranks and grades of people to put themselves under some sort of treatment. Moreover, physicians, from prejudices of education, as well as from conscientious convictions of duty, rarely omit the ordinary remedies in severe disease.

"Just here, then, is a defect in our therapeutic literature which we find it difficult to correct. Our libraries are full of books on therapeutics proper, but contain few on nature's power of curing disease. And yet there would seem to be no good reason why, if nature has the power of creating disease, she may not have the power of curing the same, and that she has such power there can be no doubt.

"You will find an admirable summary of our knowledge on this subject, limited as it necessarily is, by Sir John Forbes, of London, for many years the renowned editor of the *British and Foreign Medical Review*. I refer to the last professional work of his life, published in 1857, entitled 'Nature and Art in the Cure of Diseases,' a work to which I acknowledge myself indebted for many of the thoughts and suggestions of the present lecture. His evidence in favor of nature's power of curing disease is mainly drawn from—

"1. The great field presented by the pathology and diseases of inferior animals. Wounds of the most desperate kinds have been repaired in them by the natural process; and of most varied forms of disease a very large percentage are restored to health by the natural process alone.

"2. The history of savage or uncivilized nations. Many diseases are untreated, and others are treated by superstitious charms.

"3. The history of isolated individuals, or isolated bodies of men of greater or less extent, who have been attacked by sickness under circumstances in which no medical aid and no medical appliances were procurable. It cannot, of course, be denied that many die under such circumstances that might have been saved; but still a large proportion of cases of sickness recover with little or no medical treatment.

"4. The varied systems and modes of practice, such as 'Expectation,' 'Homœopathy,' 'Grape-Cure,' 'Whey-Cure,' etc., etc.

"Under all these varied systems, what is the result? Doubtless, as in the former case, many die that might otherwise have been saved. And yet many recover.

"This is the general line of argument so ably presented in the work to which I refer. It is extremely suggestive, and no one, I am quite sure, can carefully analyze the facts presented without being led to the conviction that the power of nature to cure disease is infinitely greater than is generally believed by the great body of practitioners, as well as by the public generally. And yet the medical *art* has a noble part to play as a 'hand-maid and helper of nature'—for this is its true position. It is an old aphorism that 'physicians cure—*i. e.*, "take care of"—but nature heals.' In visible diseases, surgical so called, nobody doubts that this is the case. The surgeon does not cure the fracture, the wound, or the ulcer; he merely guides the operations of nature, removes obstacles, and the vital power restores to health.

"And the same principle, precisely, holds good in internal diseases, the relations of which are simply hidden from our senses.

"What, then, does art do toward curing? Art

only assists nature in restoring the vital forces to their normal action. We used to bleed in inflammations, and were under the impression, at the time, that we cured by that process. And possibly we did. But the merit, if any, was that we removed impediments, lessened the fullness of blood-vessels, relieved congestion, restored functional activity, and thereby enabled nature to accomplish that internal healing process which must always take place when our treatment is successful.

"Now, practically considered, there are two errors which the physician should carefully avoid.

"The *first* is in *doing too little*—the negative treatment which leaves all to nature, the physician's study being a mere 'meditation on death.' This is a fault which cannot be too strongly condemned.

"The *second* error is that of *doing too much*—the frequent resort to heroic, violent, depressing, and uncertain drugs. Of the two errors, this is undoubtedly the greater. It cannot be too often repeated that powerfully acting drugs, *unintelligently administered*, are dangerous things. I trust that I shall not offend the sensibilities of any gentleman present by expressing my preference for 'sugar-of-milk' and good nursing to such practice.

"But it is simply my purpose, at present, to guard against the two extremes mentioned. In the progress of opinion we may be passing from one extreme to another. In the recent past, cures were attributed alone to drugs. It was an age of faith in medicine; the recuperative power of nature in the cure of disease was entirely denied. Cullen did much in his day toward establishing this heresy. It is said of him that he used at one time, in his lecture-room, this strange language in relation to nature's curative efforts: 'As for nature, I would treat it in the sick-chamber as I would a squalling cat—open the door and drive it out.'

"It is a sad commentary on human reason that this great teacher and writer of his time was himself confused by those 'false facts,' which he was wont to declare were more numerous even than false theories.

"These introductory remarks are, of course, addressed mainly to the younger members of the profession present. I have tried to inspire you with a reasonable confidence in the curative powers of nature, and to keep you from *over-drugging your patients*. I know how anxious you will be about those who are placed under your professional care, and how you will be tempted, in your over-anxiety, to do too much.

"It is an error very liable to beset the young practitioner, to try to meet every different symptom by the addition of another drug to his formulæ. This is sure to lead to excessive medication. Let me guard you against becoming 'shot-gun practioners,' on the principle that, if you fire a profusion of shot, it is extraordinary if some do not hit the mark! Quantity and complexity of prescription are very apt to be in proportion to the obscurity of the case. The strong and successful practitioner is usually a man of few remedies.

"There are two rules of practice, just in this connection, that I would like to state with emphasis:—

"1. *Never administer a drug of any potency without a definite purpose—that is, without a clear indication—for drugs never occupy neutral ground.*

"2. *Never use more medicine than is requisite to produce the effect which is intended, and continue it no longer than is absolutely necessary.*

"These rules, faithfully adhered to, cannot fail to lessen the amount of drugs usually administered. It is a wise and true saying, that 'it often happens to a *good* physician to find no indications for treatment; to *bad* ones, never.'

"Now, in conclusion, let me urge you to estimate the value of *time* in the cure of disease. Time is often just the remedy we need: it is a great 'alterative' for the better in a host of maladies. Watson said that 'six weeks' was his cure for rheumatism. Let me add that it is a valuable remedy for more diseases than rheumatism. But how shall we get these 'six weeks,' or 'six days,' as the case may be? How shall we bridge them over, when we know, from the nature of the difficulty, that we cannot hasten the recovery, or make it more sure, by drugs? nay, more, when our deliberate judgment, perhaps, is that the patient will be better off without drugs? Shall we frankly say to the sick one that he needs time and patience and good nursing rather than drugs? Just here the skill, tact, judgment, and good sense, of the physician are severely tested. I wish I could unqualifiedly answer the question in the affirmative—for it would be honest to do so—but, with the popular notions of disease and cure, I cannot. Sick people, as a rule, want medicine of some kind; they will have it; and, if you do not do something for them, they will be apt to discharge you, and send for one who has more faith in drugs, and fare worse.

"But, in reply to this, it may be said that the profession should be the *educators* of the public in such matters; that they should break down this popular resource of quackery. To this I most heartily assent, so far as can be done with safety to the patient. But can it be? This must be a matter of judgment in each individual case. You must diagnosticate your *patient* as well as the disease. If your family is intelligent, and, above all, if your patient has implicit confidence in you, you may be able to say to him: 'You do not need any medicine to-day; when you need it I shall prescribe for you.'

To some minds the moral effect of such a speech would be good; to others, quite the reverse. And the latter class are, I am inclined to think, altogether the more numerous.

"Let us return, then, to the question, What shall we do in such cases? Sick people are anxious, restless, and often impatient. They study every look and word and suggestion of the physician. Shall we commence to educate such persons *in the sick chamber?* The experiment would certainly be hazardous in most cases. Say to a nervous and morbidly-foreboding patient, who looks to you for relief, 'I shall not prescribe any *medicine* for you to-day,' and ten to one he will turn the matter over in his mind, after you leave, in this wise: 'Well, what does this mean? Am I sicker than I think? Is there something obscure about the nature of the difficulty—something the doctor does not understand—and is he, therefore, undecided about the treatment? Or, what is worse, is the disease of such a nature that medicines will not reach it? Am I beyond recovery?

"I tell you, gentlemen, that man or woman, strong-minded as he or she may be, would sleep better with a *placebo* confidently administered. We must do something; the *moral effect* is good, and, through that, the physical condition is often absolutely improved. This, and this only, is our justification.

"I am sorry to present you this weak side of human nature; but it is true, and we may as well accept the facts.

"My advice to you, then, is, to study the art of administering *placebos*,* when they alone are indicated; and, when you do so, by all means see to it that your medicine is not hard to take, and that the patient is never woke up out of a good, refreshing sleep to take it.

"And always—let me once more insist as a sound rule of practice—*when you have doubts as to your knowledge of the case, or doubts as between Nature and drugs, resolve that doubt, for the time being, in favor of Nature.* And, whether administering drugs or not, see that your patient is put on the best possible *hygiene;* that his room is airy and well lighted; that his drinks are suitable; that his food is adapted to his case; that he is bathed and sponged if too hot, and warmed if too cold; and, above all, that his mind and nervous system are kept as quiet as possible.

"We should enforce a rigid hygiene in obedience to a most conservative and safe rule of practice, namely, *that it is the duty of the physician to restore health by the simplest means in his power.*

"In presenting you, gentlemen, at this our first meeting, some thoughts on the Natural Cure of Disease, I have not sought to make you medical skeptics, but medical philosophers. Trousseau, the great clinical teacher of France, has well said that '*to know the nature and cause of disease is more than half of medicine.*' And let me add, from another stand-point of medicine, *To know the natural cure of disease is more than half of therapeutics.*

* Substances of no medicinal value, given merely to satisfy the mind of the patient.

Water.

IT is quite difficult for some people to understand that hygienic agents may become causes of disease. It is by abuse. Everything is ours—ours to use, not to abuse. Bad effects resulting from injudicious bathing are occasionally reported. These facts are caught up, and an argument is made of them against the use of water in treating the sick. It is as unwise to do this, thereby condemning the bathing system, as it would be to condemn the whole system of railroads because accidents occur now and then which involve loss of property and life, through the ignorance or carelessness of some of its engineers.

The use of pure water is both safe and essential in successfully overcoming diseases. The relations of water to the living, healthy organism, and the purposes it serves in the various functions of the body, is proof of this. We wish that the unjust prejudice against this article of abundant supply could be removed, and a knowledge of the benefit it affords, take its place.

Water constitutes the greater proportion of the entire bulk of the body. It composes more than three-fourths of the whole mass of the blood, and about seven-eights of the substance of the brain, and more than nine-tenths of the colorless fluids and secretions. And although it is not manufactured into structure, it is the only medium by which nutrient matters are conveyed to the blood, and through the blood to all parts of the system for the growth and replenishment of the structures. Water is the only substance capable of circulating in all the tissues of the body, and penetrating their finest vessels without irritation or injury. On the other hand, there is no medium through which the waste and effete atoms and foreign particles are carried to the excretory organs from all parts of the system to be expelled, except water. Water is the only solvent, diluent, and detergent for animal and vegetable matters in existence.

Now when this washing out and cleansing process is not fully performed in the tissues, obstructions occur in the various depurating organs, and parts become clogged. This unbalances the circulation, and a diseased action is set up of greater or less intensity. In this state of things, what course more appropriate to pursue than to withhold for a time everything that can become obstructing material, and use water, nature's own remedy, internally or externally, as the case may demand, till balance is restored, normal action regained, and all is well again in the body. Nature never calls for drugs. An eminent historian of medicine declares, "Every dose of medicine is a blind experiment on the vitality of the patient."

P. M. LAMSON, M. D.

THE way to have your secrets kept is to keep them yourself.

Sugar.—No. 2.

As stated last month, the subject of this article shall be to consider, more especially, the relation of sugar as an aliment to both the vegetable and the animal kingdoms, also noticing some of the evil effects resulting from its immoderate use as an article of diet.

Sugar is produced in the process of vegetable growth, or plant life. The little, fibrous rootlets of the plant absorb the crude materials, inorganic substances, from the earth, which are carried up as sap through the pores of the stem until they at last arrive at the leaves. Here other inorganic elements of nutrition are received from the air. The crude material thus supplied to the plant is still entirely unfit to enter into its structure; but through the action of the sunlight, in conjunction with the vital forces of the plant, these inorganic elements are partially organized and thus rendered fit food for the plant, ready to be assimilated into its structure, thus becoming fully vitalized. The principal substance thus produced, is sugar. The next process, as already intimated, is that of transporting the sugar to the various parts of the plant for assimilation. This being done, it is finally converted into the tissues of the tree, forming woody fiber, or cellulose. We see, then, that the relation which sugar sustains to the vegetable kingdom is that of food by which its tissues are built up and replenished. In the plant this food is often stored away for future use in the form of starch or gum. This is why we find so large an amount of starch in many kinds of food, rice being almost wholly composed of this substance. The same is true of nearly all grains, as well as of fleshy roots and tubers like the turnip, potato, etc. Indeed, by far the largest proportion, both in bulk and weight, of the solid parts of our food is starch. Many fruits also contain a considerable amount, but in them it is usually converted into sugar by the ripening process.

Other substances beside sugar are also produced in the plant. Of these, vegetable albumen or gluten is by far the most important; not so much so to the plant, however, as it is not transformed into vegetable tissue, but indispensable for the animal kingdom as we shall soon see.

In the soft or fleshy parts of animals there are two distinct classes of substances. Of the first are composed all of the vital structures of the body—the muscles, tendons, membranes, nerves, etc. Of the second are composed all of the fatty material or adipose tissue of the body. The first class consists of fully organized, vitalized, cell structures. The second class comprises only partially organized substances which have no cell structure. The tissues composed of the first class of substances carry on all the life processes of the body; while the substances of the second class form a blanket about the body as a layer of fat, act as cushions to protect tender parts from violent concussions, and serve as fuel for the maintenance of animal heat. Although both of these classes of substances are always found in the body in a state of health, and are both necessary to its proper support, yet, in comparative importance, it will be readily admitted that the first is greatly superior to the second. Indeed, the maintenance of the latter class may be more or less neglected for a considerable period without material injury; but the support of the first must be carefully and promptly attended to, or the individual suffers. The tissues of which the first class is composed, are maintained by the use of food containing albuminous substances, as gluten, etc. The second is maintained by the oily and saccharine constituents of the food. Here we find the use of sugar as an aliment for man and animals. It produces the fat of the body, and cannot contribute anything whatever to the nourishment of any of the vital tissues; so that a starving man would live just as long with nothing whatever to eat as he would if supplied with an abundance of sugar.

But as we have seen, a certain quantity of the saccharine element can be used to advantage in various ways. As also stated, this saccharine element may exist under several forms; viz., as sugar, starch, or gum, starch constituting the largest proportion of our food, fine flour containing little else. This starch, when taken into the system as food, is changed to sugar by the digestive process, after which it passes through other changes, finally appearing as oily or fatty matter. A pound of starch thus eaten will produce the same quantity of sugar. This being the case, it would seem that a large use of sugar is quite unnecessary, if the article should not be discarded altogether; since essentially the same element is supplied in such large quantities in all the food we eat. Again, experience has repeatedly shown that large quantities of sugar are positively injurious, causing torpid livers, indigestion, and general derangement of the digestive functions, and sometimes obesity. How this occurs, is very plain, and easily understood. A large portion of sugar taken into the stomach is exceedingly liable to fermentation, which will of course be communicated to other food which may be present, thus rendering it indigestible. Sugar, in sufficient quantity, has also great power as an antiseptic; that is, it will prevent organic change. Now as digestion is a process by which an organic change is effected, food which contains an excessive quantity of sugar cannot be well digested. Moreover, when large quantities of sugar are eaten, it is in addition to the starch which is also eaten in connection with the other elements of the food, so that a quantity of saccharine material much greater than can be made use of in the system is thus received. As the result, the surplus must be excreted by the liver, which soon wearies of its task and becomes

inactive or torpid. The useless matter then accumulates, and obesity is the result.

But it may be suggested that if starch is so readily converted into sugar by the digestive organs, its use would be as objectionable as that of sugar; so that a person would experience as evil effects from eating a pound of starch as he would from eating the same quantity of sugar. This seems a very plausible argument, but the objection is readily removed. Starch is a much more stable substance than sugar, and it is for this reason that the latter substance is changed to starch by the plant when preservation is necessary, being reconverted into sugar when required for use. When taken into the stomach, it remains unchanged by the gastric juice while in the cavity of the stomach, and does not undergo fermentation; it really serves a valuable purpose in the digestive process by giving the food a certain bulk which is necessary to enable digestion to be carried on properly. After the albuminous portions of the food are digested, the whole is passed through the lower orifice of the stomach into the intestines, where the starch is converted into sugar by the pancreatic juice, and is then immediately absorbed.

In view of all these facts, we see that sugar is really quite an unimportant article of food, and cannot be in any measure depended upon to support life. When we add to this the fact that in most substances, at least in many, sugar is already present in sufficient quantities to answer all the demands of nature, there seems to be no excuse for its very extensive employment. One of the most potent arguments in favor of entirely discarding it, is the fact that those who make any use of it at all are exceedingly liable to use it to great excess. All should be careful upon this point, and employ it only when required to render palatable very sour fruits.

Some of the many alarming evils resulting from the adulteration of sugar in the process of manufacture will be considered next month.

J. H. K.

Husk Beds.

CONSIDERING the real worth of good husk mattresses, the ease with which they are made, and the little expense attending their manufacture, we have often wondered that they were not found in every home and in every sleeping apartment. In the country their cost is comparatively nothing, while for real comfort they are second to none but the costly hair mattresses which few care to procure. Having used husk beds for several years, we can heartily indorse the following from the Belfast *Journal*, merely premising that we prefer the husks should first be steamed and stripped to give the greatest possible lightness and elasticity.

There is nothing equal to corn husks for underbeds; yet few families have them, even in the country, where the trouble and cost of them are so small. They are always light and easy, and last a long time. Though costing at first about two or three times as much as straw, they are vastly cheaper in the end, as they last much longer, besides being a great deal better. This is the way to get them :—

As soon as the husks are taken from the corn, before any mold or other harm comes to them, take the fairest and best leaves, free from all stalks, silks, etc., and spread them out to dry in some large, airy room, stirring them well every fair day for a month, or till they are perfectly dry. As they shrink fifty per cent in drying, it will take twice the bulk of straw to make a good bed.

As there is some wear out to them, as to everything, once in half a dozen years a little new will want to be added. In this way, for a dollar—for nothing, if you have them—you may get what is worth many dollars, and a great luxury that straw folks never know. Don't split the leaves; they do not become flat and solid as many suppose, but curl up and make the mass light.—*The Household.*

Watch the Fires.

A PLACID old lady, who seemed to be all gentleness, once told me that if she ever got real angry it always made her sick. Some writers say that a fit of passion tears down the system like an attack of typhoid fever. However that may be, the effects of it are all bad, in body as well as soul. Habitually angry, fretful people destroy their health, as well as their own comfort and much of the happiness of others. Yes, and it is really true that worry kills people faster than work. So, if you wish to live long in health and comfort, learn to keep the soul quiet. "The ornament of a meek and quiet spirit," the word of God tells us, is in his sight "of great price."

You can learn to rule your spirit even though it is fiery. His grace is enough for all the world. But it is like any other fire; you must check it betimes. If you let it get a little headway, it may be like the Chicago disaster. Nothing but rain from heaven can put it out.

Don't let your beautiful house burn down just because of these unchecked fires of temper. Watch for the first sparks. Speak low if you are angry; it will help much to quiet you. Watch well the fires.—*The Presbyterian.*

ROAD TO DRUNKENNESS.—It cannot be said that all smokers and chewers drink liquor, but all who drink, smoke and chew. Almost every drunkard began with tobacco. Keep your mouth clear of tobacco, and you lessen the danger of your fall by whisky.

Lack of Knowledge.—No. 8.

BY J. N. LOUGHBOROUGH.

IT is not only true that there is a lack of knowledge relative to the diet and habits of body, leading to a transgression of nature's laws, which induces disease and death; but it is equally true that there is a lack of knowledge relative to the laws of mind. In this respect, also, "people perish for lack of knowledge." There is more science in the words of John than the careless reader would at first suppose, when he says, "Beloved, I wish above all things that thou mayest prosper and be in health, even as thy soul prospereth." 3 John 2.

The healthful prosperity of the body is affected to a greater extent than many are aware, by the condition of the mind. Says Solomon, "A merry heart maketh a cheerful countenance; but by sorrow of the heart the spirit is broken." Prov. 15 : 13. Again he says, "A merry heart doeth good like a medicine; but a broken spirit drieth the bones." Prov. 17 : 22.

Mind and body are closely allied to each other, and each affects the other. An enfeebled condition of the body produces feebleness of mind; sorrow and anguish of spirit may, and do, depress the body. A diseased imagination will many times produce disease in the body, while, in other cases, disease may be thrown off, and its workings modified in the body, by the power of the will. There are many instances on record of disease, and even death, being produced by the power of the imagination, as well as instances of recovery from disease by means of a strong determination not to yield to its influence.

There are instances in which all the effects of disease have been produced by the imagination alone. Some of these are simply ludicrous in the light of facts, but seemed as much of a reality to the victim of a diseased imagination as though they were the soundest reality. The first I will notice was a case in my native town, Victor, Ontario Co., N. Y., in the time that the cholera raged so violently in the United States, in 1834. The story obtained credence that when the cholera commenced on a person one of the first symptoms was a buzzing sound in the head. One of our townsmen, who was a hale, hearty man, but still a little nervous, was working one day in the harvest field with a dilapidated straw hat upon his head. Suddenly he heard a buzzing sound in his head. The story he had heard, that cholera commenced with a buzzing sound, came quick as thought to his mind, and he imagined that he had the cholera. He started for the house with fright, exclaiming, at the top of his voice, "*I've got the cholera!* I'VE GOT THE CHOLERA! ! OH, I'VE GOT THE CHOLERA! ! !" Pale, with cold extremities, nearly fainting, he reached the house, gasping, "*I've—got—the—cholera.—There's—a—buzzing—in—my—head.*" All exhausted with fright, his friends helped him upon the lounge. His hat fell off at the same time, and his buzzing cholera suddenly whizzed out of the room in the shape of a bumble bee. This bee had crawled through a hole in his old straw hat, and, not finding as easy an exit, had made all this buzzing sound, which he had imagined was in his head, and mistook for the first symptom of cholera. He suddenly recovered when he discovered the cause of the buzzing, but would undoubtedly have had the real disease in a few minutes more had not the discovery been made.

But I will call attention to another case a little more serious. A few years since, a dispute arose between two employers in a factory, at Chickopee, Mass., on the power of the imagination and the will to produce or retard disease. The one contended that in some instances men were made sick simply by the power of imagination. The other as stoutly insisted that this was not so. The first one claimed that he could take the strongest man in that factory, and, if the man were kept ignorant of the scheme, he would make him sick abed in less than half a day, simply by exciting his imagination. Finally, the opposing employer made a wager that it could not be done, at the same time pointing out a strong, healthy Irishman, who worked in the factory, as the one upon whom the experiment should be tried, and the next morning as the time when it should be done. The plan was for three men, the employer to be the last one, to meet the Irishman, one after another, and convince him that he was sick and unable to work. In the wager it was stipulated, I believe, that the talk of the third man would send the Irishman home sick abed.

The scheme was so managed that the Irishman and all the hands of the factory were kept in ignorance concerning it, except the three who were to play on the man's imagination. A friend of mine, who was living in the place at the time, and who saw the scheme carried out, related it to me. It was as follows: In the morning, as the workmen were assembling to engage in their daily labor, Pat came, as hale and blithe as ever, to enter upon his day's work. His boss met him at the door, and said, "Why, Pat, what is the matter of you this morning? What makes you look so pale? *You are sick.*" "Well," said Pat, hesitating a little, "I—felt—well—enough—when—I—left—home." "But you are sick now," said the man, "you look dreadful pale; you look bad." "Well," said Pat, "I do n't feel as well as I did when I left home," and passed into the shop. The first impression was now made, and the work of demoralization of his mind commenced. After he had had time to think over his imaginary bad feelings a little, a second man came to him, and, expressing the greatest sympathy and solicitude for

him, said, "Why, Pat, how pale you look! you are miserable; you ought to be abed; you certainly are not going to try to work to-day." "Well," said Pat, "I do n't really feel able to work, but I think I will try." With this he commenced at a slow rate. By this time he really began to look pale, as his imagination was keenly aroused to the idea that he was sick.

Soon the employer, who had claimed that he could send Pat home sick, came along to apply his power, and said, "Why, Pat, you look pale as death. What in the world is the matter of you? You are certainly sick. I never saw you look so bad." "Well," said Pat, "I do feel sick. I felt well enough until I got to the shop, but I began to feel bad then, and have been growing worse ever since I came in. I can hardly work." "Well," said his employer, sympathetically, "I would not try to work if I felt sick. Go home and go to bed, and have your wife steep up some herbs for you and give you a sweat, and you will feel better." This finished the case, and, sure enough, Pat, faint, sick, and with a faltering step, started for home at a slow pace before ten o'clock. The employer had won his case, and had demonstrated what could be done by the power of imagination. "But," said he, after the Irishman had fairly left the shop, "gentlemen, this case has gone about far enough." In a short time he went to Pat's house, found him snugly wrapped in his bed, and his sympathizing wife preparing to give him an herb sweat to cure something, they did not know what.

The employer then told him the whole story, and that he was not sick, explaining that it was the power of his imagination. Pat believed it, got up, dressed himself, went back to the shop, and finished the day at work as lively and well as ever. Had his imagination been left to run, and he carried out the dosing, he would soon have been sick in earnest.

Physiologists recognize the most direct connection of the nerves of animal life with those of organic life. Derangement of the nerves of animal life must necessarily produce a corresponding derangement in the nerves of organic life, which directly preside over and build up the body. If this organic nervous system is disturbed and deranged, in that same proportion are there disturbance and disease in the organs of the body. If the nerves of animal life (of which the brain proper is the center, and which the will to some extent controls) become excited with the idea that there is poison in the body, these nerves will convey that impression to the organic nerves, and they, recognizing the impression, will go to work as though real poison was in the system. If this impression is powerful enough, these nerves will induce as powerful an action as though there was actually sufficient poison in the body to produce death. In such a case, the person would die in the same manner and for the same reason as he would from an overdose of poison; viz., the overacting of the organic system to throw off the poison, thus disorganizing itself and producing death. Such might be the fact, when it is all the result of a diseased and powerful imagination.

A consideration of these facts shows us the importance of our understanding ourselves mentally, not being the creatures of every whim, not following every imagination and nursing every bad feeling, but, as the saying goes, "Putting the best foot forward." In this manner, many of our bad feelings are overcome by the power of the will. The will says, "I am pretty well." That sensation is communicated to the organic nervous system, and *that* says, "I am pretty well." Surely this is a better view of the situation than would be the gloomy, desponding, and melancholy side of the case.

I said death has often been produced by the imagination when in reality there was no disease at all until thus produced. A case which will not be new to many of your readers will be in point here. A man in France was condemned to death for crime. A few physicians got permission to try an experiment upon him, instead of immediately dispatching him under the guillotine. The plan was to excite the man's imagination, and decide the case whether death could be actually produced by the action of the mind. They were to make the man think he was bleeding to death, when, in fact, he should not shed a drop of blood. Their claim was that imagining that he was bleeding to death would so affect his nervous system that he would die, and, in his case, it proved true.

With dishes in sight to catch the blood, and the keen lancet gleaming in the hands of one of the physicians, and his own arm bared for the work of being slaughtered, he was blindfolded and laid upon the table. The physicians talk about, and hunt for, the main artery, and find the most favorable place to tap it so as to make a short work of bleeding him to death. They prick his arm, but not enough to start the blood. Then they talk as though the blood was running freely; and, to make the deception complete, they contrive to haye warm water running upon his arm and dropping into the bowl. They report the amount of blood shed. They count his pulse and report its fluctuations. Talk of his standing it but a little longer. He actually faints—dies in their hands—with all the symptoms of one bleeding to death, and yet without losing one drop of blood, dying a victim to the deception of the physicians upon his imagination, which was as real to him as though he had actually bled to death.

In closing this article, I would say that these, and other similar cases, show us something of the power of imagination, of the power the mind has upon the body. They also show us the importance of a knowledge of these things, that we may move

understandingly, and not fall victims of fancy and imagination. In our next, we will try to make more of a practical application of these principles elucidated above.

"There is a shady side of life,
And a sunny side as well,
And 't is for every one to say
On which he'd choose to dwell;
For every one unto himself
Commits a grievous sin,
Who bars the blessed sunshine out,
And shuts the shadows in.

"The clouds may wear their saddest robes,
The sun refuse to smile,
And sorrow, with her troop of ills,
May threaten us the while;
But still the cheerful heart has power
A sunbeam to provide,
And only those whose souls are dark
Dwell on life's shady side.

"Then wear a happy heart, my friend,
And fix your faith above;
A Heavenly Father may afflict,
But does it all in love.
And they who strive to do his will,
And read his word aright,
With songs of triumph on their lips,
Walk always in the light."

The Will Power in Pestilence.

IT is a fact well demonstrated that in seasons of fierce pestilence, whether by infection or contagion, one of the chief promoters of the disease is the state of nervous prostration consequent upon fear. And not only fear alone, but the heart-rending emotions of sympathy and anguish in view of dire calamity to relatives and friends. Cases are not rare in our own land of brave men and women who, moved by a sense of duty and humanity, casting aside all fear, have moved through the very sloughs of pestilence, in their care of the sick and dying, with impunity.

One of the most remarkable cases on record transpired at Malta, in 1813, where the plague was raging with a virulence almost unprecedented. Such was the deadly nature of the disease, and so sure was death to follow the slightest contact with the infected, that all the finer feelings of humanity became obliterated, and throughout the whole island every generous impulse of the heart was crushed beneath the one instinct of self-preservation. Men and women of high and low degree were left alike to suffer and die unattended; none could be found to bury the dead; and no scavenger could be obtained to remove the pestiferous accumulations from the highways.

In this dire emergency, recourse was at length had to the hulks in the harbor, where were confined, in hard usage, a large number of French and Italian prisoners of war. These prisoners were promised, if they would give themselves to the work of nursing and cleansing in the infected places, that upon the disappearance of the plague they should be set at liberty and furnished with free transportation to their homes. LIBERTY! What will not the brave man risk to obtain it? Over two hundred of the unfortunate captives accepted the offer with glad and hopeful hearts. Their chains were stricken off, and they were sent into the midst of the pestilence, where they went at the work in good faith. They nursed the sick; they buried the dead; they cleansed the infected houses, and burned the tainted clothing and furniture;—doing all with strong and determined wills, fearing nothing, but hoping everything. In the end, when the dread disease had spent its force and passed away, nearly the whole of these prisoner nurses were alive to receive the joyous liberty which had been promised them.—*New York Ledger.*

Bathing.

THE bath is a promoter of health and cleanliness, and has a salutary effect upon the brain, by keeping the blood in proper balance of circulation, thus causing cheerfulness and steadiness of mind. It gives force to the muscles and agility to the limbs, and courage and energy to the mind. It clears away the fogs which becloud the intellect, and settles the wavering purpose. In short, the bath, frequently, thoroughly, and wisely administered, has virtues too numerous to enumerate in a short article like this.

Exeo is a farmer, and did not think he could ever find time to bathe every week. It was so very laborious to get around with all his work and chores, and to superadd this bathing seemed like the last pound, which broke the back of the poor camel.

Exeo, however, rather conjectured that the REFORMER might be correct, so he began with one bath per week. Soon he took two baths per week; and, finding that it paid, he concluded to try it oftener. Now he is glad to bathe more or less daily. Often he uses the sponge bath, using a coarse towel for a sponge, and a soft one for drying; and it has really become a pleasure to bathe in this manner.

Exeo computes that the most profitable work he performs is that performed in the administration of the bath, and no money could prevail upon him to go back to his old, neglectful, filthy way of doing, in ignoring the bath for weeks and months together. Horsemen think it time well spent in currying the noble steed and keeping him in proper trim for traveling. Not less is it time well spent to cleanse the body and keep it in vigorous, healthy condition, thus promoting temperance and virtue, for just as decayed wood takes fire from a spark, so is the diseased system predisposed to vice.

J. C.

Food for the Sick.

It is no easy matter to restrain the sick, or some of them, from practical suicide by eating without an appetite, while the task of restraining friends (?) and officious neighbors is but little less than herculean. In the acute forms of disease—fevers and inflammations—the appetite is wisely and mercifully taken away, indicating that the stomach has no gastric juice, and therefore cannot digest food, which, if taken, must either be vomited or remain as an irritant, fermenting and rotting, necessarily aggravating the disease, if not producing other and worse forms of sickness.

If the sick could be allowed to follow their inclinations in this respect, controlled by the appetite, which is really the measure of the wants of the body, indicating more food in cold weather and when over-exercised and less in hot weather and when the body is unnaturally heated, there would be but little trouble; especially if we would but follow the example of sick brutes, all of which, even the hog, knows too much to eat without an appetite. Instead of a desire for food in the acute forms of disease, there is generally a thirst, a desire and a positive demand for something to cool the body, and not for food to warm the already over-heated system. And in the first forms of disease, especially, we may trust the indications of the appetite, always exercising reason and judgment to prevent excess. We drink water simply to slake a thirst, and we should take food to repair the waste of the system and regulate the animal heat as indicated by the appetite, never disregarding the known demands of the appetite or forcing the stomach to receive food when a loss of it, or a nausea, clamors for abstinence.

But some of the sick take food from principle—though not conscientious in any other respect—supposing that they must do so as a means of gaining strength or of "keeping the wind out of the stomach," an idea too ridiculous and false to deserve a moment's consideration, too absurd to be entertained in an enlightened age, since the outer air does not reach the stomach, and would do no special harm if admitted. If "wind" is in the stomach, it is evolved by the rotting of the undigested food forced into the stomach, the product of fermentation, as seen in the over-raised dough. To keep the stomach free from "wind," fast when food is loathed, remembering that if the popular idea is correct, that food must be taken to keep the air out of the stomach, constant eating is required, filling it as fast as it is emptied. Again, the sick will gain strength by fasting more rapidly than by eating without a relish and an appetite, since forcing always tends to retard the return of the appetite. Indeed, most of the popular ideas, especially among the ignorant, are "highly preposterous and totally absurd."

It is safe, therefore, in the first or acute forms of disease, to abstain from food, drink freely of water, at least in the absence of an appetite, and when thirsty, and use only the simplest kinds of food which are easy of digestion, while improving, taking the more substantial kinds after being able to labor, and all at regular periods.—Dr. J. H. Hanaford, in *Christian Monitor*.

House Drains.

There exists a great danger from the use of drains as now arranged, connecting, as they do, our water-closets, bathing-tubs and the kitchen sink, with the street sewer. From the decay of vegetable and animal matter, which naturally finds its way into the common sewer, noxious gases are formed, which, if allowed to escape into our living rooms, are capable of vitiating the air to that extent as to render it not only unwholesome, but absolutely dangerous. That this danger can and does occur, is readly demonstrable when observing the usual "water-trap," (which is intended to shut off the gases and foul air), during the sudden influx of a great volume of water that usually escapes into the sewer during a rain storm; when the great pressure brought to bear upon the air and gases in the sewer, forces it through the drain pipe communicating with the house, and from thence through the water in your "trap," through which it bubbles into the room. Then, the difference of temperature between the air in the sewer and that in the dwelling, causes a current through the drain pipe into the house, again introducing the foul air of the sewer. Should a large quantity of water be allowed to escape—as from a bath-tub, into a trap down stairs, every trap up stairs is likely to be emptied of its water through the suction induced by the vacuum which occurs behind the volume of water so escaping. There then exists no impediment to free circulation of noxious gases into the chambers where such traps are located.

In the covered cess-pools into which drains are usually conducted, the danger from escaping gases is far greater, as they must find an outlet somewhere, and naturally follow the drain pipe, into the dwelling, through the water in the trap. For this reason, cess-pools should be located at a considerable distance from the dwelling, and then have a suitable opening through its top, communicating with the open air, by means of a large pipe. Drains emptying into a sewer should have a perpendicular pipe erected by the side of the house, inserted into the drain, and extended to the top of the house. By such an arrangement the gases would find unobstructed passage to the open air, when seeking such an outlet under the circumstances above enumerated, and the foul air that we are now accustomed to recognize as escaping from our water traps would find an exit where their harmful influences would never be felt.

To Correspondents.

DYSPEPSIA.—I. T., of Ohio, says:—

I have sick headache, pain in the bowels, cold stomach, belch up my food, have constipated bowels. I eat fine-flour bread, pork, drink considerable coffee, etc. What shall I do to regain health?

Ans. Change your diet. Leave off all of the above-mentioned articles, and use, instead, graham flour, fruits, grains, and vegetables. Eat but two meals a day. Apply a hot fomentation over the stomach and bowels for fifteen minutes on Monday at 10½ A. M. Afterward bathe the parts fomented in cool water, and wipe dry. During the latter part of the week, take a cool sitz bath, with hot foot bath, for ten minutes. Cool the foot bath a little the last three minutes. When you have severe headache, you will find relief by employing the foot bath as already described. Take a thorough general bath once a week.

HEART DISEASE.—D. C. E., of Mass., asks what to do for heart disease.

Ans. You do not give any description of your symptoms. Much of what passes for heart disease is simply palpitation, caused by disease of the liver or other organs, while the heart may be as sound as need be. Your difficulty may be of this class, and probably arises from dyspepsia. You should carefully regulate your diet in accordance with hygienic principles. Keep the bowels open by the use of occasional enemas, or better, by the use of graham flour and other unconcentrated articles of diet. Form correct habits of labor. Bathe frequently, so as to keep the skin active and free from impurities and the circulation equalized, and your heart disease may disappear.

Prescription for real organic disease of the heart can only be given upon personal examination.

DYSPEPSIA.—I. A., of Cal., says, 1. I am fifteen years of age, have been troubled two years with pain in the stomach, am very nervous and easily excited, dizzy at times, appetite poor, have heartburn, water brash, nausea, flatulence, headache, etc., use butter, coffee, milk, tea, sugar, preserved fruits, etc., have been under the care of many drug physicians. What shall I do to get well? 2. Should I wear woolen under clothes in summer?

Ans. 1. The above-mentioned articles should all be dispensed with. Yours is a bad case of dyspepsia, and you must confine yourself to food composed wholly of fruits, grains, and vegetables, using mostly dry food.

Do not drink with your meals, but use various kinds of fruits. Be very careful not to over-eat, nor eat of many kinds at one meal, and if you find that any particular kind of food hurts you, dispense with it and try other articles until you find something you can eat. Let drugs alone. Keep your head cool and your feet warm. Bathe twice a week. 2. Yes, in California, except during a few of the warmest weeks.

W. H. G. has dyspepsia and wishes to know what to eat. Her daughter, eight years old, has dyspepsia also.

Ans. Follow the directions given for preceding case.

She also asks what can be done to prevent the hair from falling off or to induce its growth.

Ans. Nothing, except to get the entire system into a good condition by living in accordance with the laws of health. Break off from every wrong habit in eating, drinking, and labor. Attend well to personal cleanliness. Wash the scalp frequently with cool soft water, and rub it well.

ERYSIPELAS.—S. T. D. asks, What shall be done for a person who has a mild form of erysipelas in his feet?

Ans. If the patient is strong, give one or two tepid packs a day for a short time. Keep the head cool. If the patient is weak and the circulation low, sponge the surface frequently with tepid water. If the bowels are full and hard, give tepid enema; but if there is not much irregularity, the enema is unnecessary.

INFLAMMATION OF THE EYES.—E. J. A. V. says, I am troubled with sore eyelids. The edges look red, and are painful. They are affected by heat, and also by cold. At times, they discharge viscid matter, and the eyelids stick together in the morning. I am thirty years of age. My general health is good with the exception that I am troubled with dysmenorrhea and extreme nervousness at times, and with loss of appetite in the spring.

Ans. Apply fomentations to the eyes each night at bedtime, and apply a cool compress during the night. On rising, wash them in cool, tepid, or warm water as most agreeable to them. Take a general bath once a week, say Monday, and a fomentation over the stomach and bowels on Friday. Use no greasy food or stimulants. Eat but two meals a day of fruits, grains, and vegetables. Sleep all you can. Avoid much reading. Never read by twilight or by a bright gas, or lamp, light. Candle light is much better.

TORPID LIVER.—N. I. K., of Iowa, says, My face and shoulders are broken out with pimples and little black worms. There are also blotches of a brownish color around the mouth. Please give the cause and remedy.

Ans. You have a torpid liver. The cause of this, without doubt, is improper diet. You must discard sugar, milk, butter, and condiments of all kinds, eat but two meals a day, using only vegetable food. On first of the week, apply hot fomentation over the liver for fifteen minutes. Toward the last of the week, take a general bath. Follow this treatment a few weeks.

CONSUMPTION.—H. M. P., Mo.: We fear we

could do very little good in your case. You have delayed too long. The best advice we can give you is this: Each morning either yourself or an attendant should rub your chest briskly with the hand after dipping it in cool water. Follow this up for a few weeks, then rest a week, when the rubbing may be repeated as before. Continue the rubbing from five to twenty minutes at a time. Eat that which seems to agree with you best. Get all the sleep you can.

INFANTILE DYSPEPSIA.—I. N. S., of N. Y.: Your child is a victim of dyspepsia. Hundreds of children suffer from this disease. The habit of feeding a child each time it cries, is a pernicious one. Mothers say that children cry at such times for food. This is a great mistake; and one which has caused much trouble among infants generally.

Cows' milk is often a source of stomatitis, colic, gripes, wind, vomiting, constipation, diarrhea, etc., etc. The milk of old cows, or that of a farrow cow, should never be used under any circumstances. Children should be fed only at regular intervals of from three to five hours apart, according to their age. Graham and oat-meal gruels are among the very best articles as food for children.

Mrs. J. C. C., of Vt., writes:—

Please prescribe for the following conditions: Weakness of the bowels arising from overwork, followed by severe burning all over bowels—suppression of the menses—thickly coated tongue and slime in mouth, tongue of a yellow color—soreness at the pit of the stomach and sides of bowels, sometimes reaching to the chest—darkness before the eyes on rising—at times badly constipated, followed by diarrhea and sickness at the stomach—green froth passed the bowels in small quantities, with pain—head much pressed—trembling of the limbs and blindness brought on by the least exertion—bearing down sensations in pelvis—appetite poor, with general debility, etc.

Ans. Yours is a bad case of dyspepsia, complicated with liver complaint, and uterine diseases. The suppression of the menses may be owing to the lack of vital force to carry on that function. If it is possible, you should spend from six months to a year at this or some other good Institution. If this is impossible, adopt as near as you can the following plan of treatment: Suspend labor, and, laying aside all cares, cultivate a cheerful and hopeful state of mind. Use unbolted wheat bread and oat-meal cakes, prepared according to the hygienic cookery, and a choice selection of fruits. In no case crowd the appetite. Sleep in a well-ventilated room, and air bed clothes daily. Ride out in an easy carriage daily, and exercise on foot according to strength, but avoid fatigue.

Treatment.—On Monday, at 11 A. M., take sitz bath at 92°, 7 minutes, 88°, 5 minutes, foot bath at same time at 100°, 10 minutes, 85°, 2 minutes. On Wednesday, same hour, take fomentation over liver, stomach, and bowels for 20 minutes, followed by compress at 75°, 10 minutes, then rub dry. On Friday, at same hour, take dripping sheet at 95°, followed by dry rub. *Keep head cool* while taking all treatments. Second week same as above, except on Friday, when you should take a half-pack, instead of the dripping sheet, for 40 minutes, at 100°, followed by the dripping sheet at 92°, 1 minute. Three times per week, on going to bed, take foot bath at 100°, 5 minutes, 85° 1 minute. Invariably go to bed and rest immediately after taking treatment, and on every other day at the same hour. If possible, sleep for an hour and a half. Take your breakfast at 7½ A. M., and dinner at 2 P. M. Eat nothing at any other time. Retire early. If your stomach will bear it, on rising, drink a small quantity of pure soft water, also on going to bed. We have been thus explicit in this case, as many readers of the REFORMER are suffering in a similar manner.

I. M. W., Ind.: See J. C. C., in present number of REFORMER. By all means discard the use of fine flour.

CATARRH OF BLADDER—DYSPEPSIA—DEAFNESS, ETC.—W. N. C., Mich., says, I wish you would give your treatment for catarrh of the bladder? Small things trouble me. I have the blues.

Ans. We think your case too complicated to accomplish anything by home treatment. Your safest course will be to come to the Institute where you can learn hygienic principles correctly, post yourself upon general health topics, and return home better prepared to treat yourself in the future than you could be by a mere prescription. Come prepared to stay at least three months, and leave your troubles, "blues," etc., at home, and come to us with a full determination to regain your health.

S. H. K., asks, What should a person do that has had a severe pain most of the time for four years under the right shoulder blade, and cannot do much work without feeling the pain, and very often feels exhausted and weak.

Ans. You doubtless have diseased lungs and ought to go to a good Health Institute.

PHYSICIANS, HEALTH INSTITUTE.

Treatment for Stubbornness.

WHEN you have a stubborn child to conquer, and you become alarmed at its willfulness, and at the symptoms it manifests of insane, ungovernable fury, use cold water, gently bathing its temples with it, and at the same time remain unmovable in your decision. If this does not wholly abate the bad symptoms, have the feet immersed in warm water, at the same time bathing the temples in cold water as before. I have seen remarkable results follow this treatment upon refractory pupils in school. Satan abominates the use of water in such cases.

DR. TRALL'S

Special Department.

Hygienic Cooking Machine.

A CORRECT dietary may be regarded, in one important sense, as the practical foundation of the hygienic system, whether we consider it in relation to the preservation of health or the treatment of disease. During the quarter of a century of the health reform agitation, hygienists have experimented in almost all possible ways in the selection of the materials for food, and in the manner of preparing them for the table. But they have labored under the disadvantage of being obliged to use the old-fashioned ranges and stoves. Until recently, no one seems to have thought of constructing a machine for cooking on hygienic principles; and this is the reason why cooking in Hygienic Institutes and Hygeian Homes has been so disagreeable to the cook.

But now we have the desideratum in "Boswell's Standard Room-Heater, Fruit-Dryer, Clothes-Dryer, and Iron-Heater, Combined." When we read the circular of Mr. Boswell, setting forth the merits of his invention, and the various kinds and wonderful amounts of work it would do, we were skeptical. If not too good to be true, we thought it was too much to be true. It was claiming altogether too much for any one machine which was ever contrived or that can be imagined, and a simple and cheap affair, at that! But on being assured by Dr. D. C. Moore, of Salem, Ohio (a graduate of our College), who had one of the machines in use, and who had the testimonials of several other parties who had tested and adopted it, that it was all that it claimed to be, we at once procured it. We have now thoroughly tested it, and can most conscientiously corroborate all that has been said or pretended in its favor.

The hygienic principle of the machine consists in the arrangement by which the heat can be deflected through the cooking part, and then passed off to the chimney flue; or, by turning a valve, the heat can be used again in warming the room during cold weather; while, by consuming the smoke, the fuel is economized and all contamination of the atmosphere of the room prevented. The surplus heat can also be used again in warming rooms above or adjacent. The proprietor, therefore, does not exaggerate when he says that the saving of fuel during the cold months of the year will equal the cost of the machine.

In drying clothes or fruit, in heating flat irons, and for heating water or boiling, a more convenient or economical apparatus we are unable to conceive; and for drying fruit or clothes it renders us independent of sunshine or stormy weather. The quality of the fruit, which is dried very rapidly, seems to be perfect, and the quality of nearly everything cooked in it is as good as the material employed admits, while many things which are baked or roasted are better than it is possible to make them in common stoves or ranges. In a word, the machine is just what every family needs.

Beef-Suet Butter.

IF chemistry is really constructive, as the chemico-physiologists persist in teaching, and persist in *not* proving, there is no reason beneath the sky why we may not have chemical butter, cheese, and sugar, as well as chemical paints, oils, drugs, and dyestuffs. Already, chemistry has compounded very good imitations of "primordial cells," and "protoplasm;" so nearly resembling the articles that vitality produces that neither chemical analysis nor microscopical examination can detect the difference. But there is a difference, and a very important one. The artificial products will not grow. They are "organic," with the part of organ omitted. A very fine article of sugar is said to be compounded chemically of old rags, alcohol, glycerine, and sulphuric acid. We are not aware that artificial cheese has yet been attempted. But now that chemical butter is proclaimed as both a scientific and commercial success, we think the chemical cheese-factories should be next in order.

The New York *Sun* informs us that a company with ample capital and abundant enterprise has commenced the business of making butter of beef suet on a large scale. Already its beef-suet butter has been introduced into many first-class hotels, restaurants, and private mansions, with satisfaction to all parties. The chemical butter can be afforded at half the price of the cow-milk article, while it greases the food and pleases the palate as well as is possible for butter of any kind to do. There is, accordingly, a fortune in prospect for the company, and a great economy on the part of the consumers, while on the score of appetite or health there is little or nothing to choose.

It is not easy to overcome prejudices or habits, reasonable or unreasonable. Probably if a majority of the guests of the hotels supplied with this "modern improvement" should be asked by the waiter whether they would have cow butter or suet butter, they would promptly indicate their preference for that which has come through the manipulations of the lacteal fluid. But really one article is just as good as the other. Neither is food. Both are mere seasonings, and unwholesome ones, too, as may be said of sugar. Cow butter results from the disorganization of milk, and the combination of its elements in other forms, so that it is actually an inorganic substance, as much as is the butter of beef suet, or the "baker's butter" manufactured from the grease of dead horses in the vicinities of our large cities.

But why need chemical butter be limited to beef suet? Any grease of animal origin will answer

just as well. Hog's lard, in our swine-producing regions, is vastly cheaper than beef grease, and by employing this, our butter (we mean *their* butter) can be still further cheapened. We predict that this will be the case as soon as the beef-suet article supercedes the "extract of milk."

"Aliments of Economy."

THE greatest delusion that ever possessed the minds of medical men, and sent millions of the human race to perdition, consists in confounding stimulation with nutrition. The medical profession of the civilized world sees with its own eyes a million of human beings annually going down to drunkard's graves, and persists that alcohol is a "supporter of vitality." It sees the nations filled with vice and crime, and reads of assaults and murders in every morning paper, because of liquor-drinking, and still twaddles that grog is an indispensable medicine. It tries experiments on plants and animals, and finds that the contact of alcohol in every shape and form (see Pereira's Materia Medica) is inimical to everything that possesses the living principle, and then tells us it is the best remedy possible for debility and exhaustion. And all this amazing self-stultification or stupidity comes from the misuse of a single word —the employment of the term "physiological" where *pathological* belongs.

The latest exhibition of this general delusion is that of a French physician, Dr. August Marvaud. The doctor has experimented in the usual way on the "physiological" effects of tea, coffee, cocoa, maté, or guarana (Paraguay tea), and alcohol, and has come to the unusual conclusion that they all act as foods, not, however, in the sense of positive alimentary principles, but in the negative sense of economical aliments. By diminishing loss by means of the excretions, and counteracting oxidation, they lessen the waste of tissues, and are thus practically equivalent to tissue-forming material.

Nonsensical as these notions are, they have a show of science that readily deceives the rabble, while it pleases the glutton and the wine-bibber. Indeed, the nonsense, as it is in fact, is legitimate reasoning, if we admit the premises of the medical profession that foods and medicines act on the living system.

But the reader, though non-professionally educated, has only to analyze the language logically to see its utter absurdity. Dr. Marvaud tried the "effects" of these things, we are told. But he did not do it. He cannot do it. The effects were actions of the living system to resist and expel—heat, fever, disturbed circulation, morbid sensibility, &c. Did he try these? Never. He tried the things themselves—their relations to vitality; and he found them disease-producing in every instance. Is disease an "aliment of economy"? True, disease may arrest or diminish the normal life processes, for these are always arrested or diminished in the precise ratio that abnormal life processes are necessitated. But it can hardly be healthy to be sick.

All of the effects of these agents are occasioned also by opium, arsenic, tobacco, and other poisons. Why are not these also aliments of economy? They diminish excretion and lessen oxidation, so far as the normal life-processes are concerned. Why should alcohol be in the category of aliments and strychnine be excluded?

Dr. Marvaud has made the curious or queer observation that cocoa acts directly on the motor apparatus, which it excites in the same manner as strychnine does—suspicious, to say the least; that coffee, tea, and maté act principally on the brain —an objection to their employment, we should say; that alcohol excites the muscles, and that several of the agents act on the exercise of thought.

What is thought that its exercise should be acted on? Thought is mental action—the exercise of the brain organs. How can tea, coffee, alcohol, &c., act on an action? Ridiculous as such language is, it constitutes nearly all that we read in medical books and journals in relation to the nature of diseases and the *modus operandi* of medicines. When the medical profession learns the simple truisms that diseases are remedial processes and not entities, and that medicines do not act on the living system at all, but are acted on by it, it will cease to inflict such twaddle on suffering humanity; but, until then, we must bear up under it as best we can.

New Theory of Hydrophobia.

DR. D. H. TUKE, an English physician, and a Dr. Marx, of Germany, have advanced the theory that hydrophobia is a psychical affection—"the result of morbid excitement of the imagination." The last-named medical gentleman expresses the opinion that the bite of a mad dog does not, of itself, produce the symptoms of hydrophobia, and that, were it not for the common belief in canine virus, the spasms and other manifestations of the disease would not supervene.

We do not see how to reconcile this theory with the well-known facts that, weeks and months after being bitten, after all apprehension has subsided, and the whole subject is forgotten, spasms have suddenly and unexpectedly occurred, without premonition of any kind, and ending in a horrible death. And again, how is it with the bitten dogs and other rabid animals? Is the malady one of imagination in their cases?

We have precisely the same evidence of a virus in the case of the mad dog that we have in the case of the bite of the rattlesnake. In the latter case, the disease occurs immediately after the bite, and in the former, at an uncertain and variable

period. But a difference in time, be it ten times as great, cannot alter the nature of the resulting affection.

We are still of the opinion that, instead of putting our faith wholly in a quiet mind, however useful this may be, we had better trust to the usual methods for disorganizing the virus with the first caustic that we can lay hands on, cutting out the bitten part, sucking out the virus, or ligating the limb; after which we may, with tolerable assurance of a favorable result, trust to hygienic habits.

A Puzzling Puzzler Puzzled.

DR. A. CURTIS, whose articles have proved so puzzlesome to some of the readers of the HEALTH REFORMER, sends us the following puzzle, with the remark that it was intended as the conclusion of his preceding articles. It entitles him to a professorship in the science of puzzleology :—

Of all the puzzling articles that we find in the HEALTH REFORMER, none puzzle us so much as those of our friend, Dr. Trall. Now he tells us that disease is an effort of the system to cure disease; then, that the torpidity of the system is disease; now, that medicines produce no action on the living system; then, that everything that is not used to build up tissue or repair wastes, acts injuriously on the system—that this, that, or another agent, as morphine, quinine, calomel, *kills* by *producing* different *effects* on the system; and names individuals *killed* by specific *articles*. Now he condemns *all* medication, and then invites us to his "Hygienic Institute" to learn pathology and therapeutics, at a pretty high figure. These "simple absurdities" may explain to him why it is that not only we who have not had the great advantage of his personal instructions in his Hygeio-Therapeutic College, but even others who, like many others, have studied thoroughly for "twenty-five years" his voluminous writings, have not been able to comprehend his Hygeio-Health-Reforming, Therapeutic System.

THE PUZZLE UNPUZZLED.

We have the pleasure of informing the puzzled physio-medical professor that we have never said, written, or taught the various notions he attributes to us, but, on the contrary, have many times asserted just the contrary. Our theory of disease has been stated and restated, iterated and reiterated a hundred times in our discussions with him, *and in exactly the same language*, and he has not yet learned what our theory is. The same is true of the *modus operandi* of medicines. May Dr. Curtis live a thousand years, for we fear that time will be required to straighten his talk. But as a basis of his future investigations we will lay down the following propositions :—

1. We mean just what we say.
2. We say just what we mean.
3. We never falsify an opponent's position.

Applying these fundamental premises to the subject matter before us, we have to say :—

1. We have never said that "disease is an effort to cure disease."
2. We have never said that "everything that is not used to build up tissue acts injuriously."
3. We have never condemned "all medication." We only condemn drug medication.
4. If Dr. Curtis has any curiosity to know what we have said, written, and taught on the above subjects, we respectfully recommend him to reread the articles in reply to his articles in previous issues of the HEALTH REFORMER. If he can find in those articles any authority whatever for the statements he has made, we will agree to swallow all the lobelia in his sanctum, if we go off the stage of being in a huge perspiration.

Medical Skill and Ability.

DR. C. C. SHOYER, one of our most eminent medical practitioners, was taken seriously ill of pneumonia. He gradually grew worse, and despite the best nursing, went down—down—down. It soon became apparent to the hosts of weeping friends that something must be done *at once*. Accordingly, Drs. Wever, Thomas, Callahan, Carpenter, Houston, Neely, Van Duyn, Jones, Bryce, and Brock, were called in. These parties assembled in solemn divan, and brought forth a prescription, which was reduced to writing by Jonas Wollmann, who happened to be present. It was promptly filled by Dr. Parham, and duly delivered by his saffron-hided porter. While lying on the table near Dr. Shoyer's bed, the medicine was voraciously and feloniously devoured by a favorite Maltese cat.

Next day the doctor became profoundly *better*. Yesterday he had entirely gained his wonted vigor, and may be pronounced entirely convalescent. We congratulate the doctor and his myriads of friends.

P. S.—'Twas the *cat* that died.

ADVICES from Magdenburg, Germany, report two hundred persons attacked with grave symptoms from eating raw ham infested with *trichinæ*. Among the persons attacked, is the butcher who sold the meat. Twelve of the patients are in the hospital. We take this opportunity of again warning our readers against eating pork in any shape.

LARGE, clear, blue lakes, able to bear upon their bosoms the commerce and interests of a nation, furnish room for small fish to romp and play as they please beneath the surface, never heeding the commotion; whilst the shallow little pond is roiled by the stir of a single tadpole.

How a Patient Was Lost.—A Case of Amaurosis.

A FOREIGN scientific periodical relates this suggestive story:

Some time since, a lady called upon a celebrated oculist in order to consult him on account of her eyes, complaining that their power of vision had of late considerably diminished. At a glance, the doctor saw that she was a lady of rank and wealth. He looked at her eyes, shook his head, and thought the treatment would require much more time, as there was reason to fear amaurosis in her case. He must advise her, first of all, that, as she had informed him she was residing a considerable distance in the country, she must move into the city at once, and thus enable him to see her frequently; if possible, daily.

The lady then rented an elegant mansion, moved into the city, and the physician was punctual in his attendance. He prescribed this and that, and thus days ran into weeks and weeks into months. The cure, however, was still coming; the physician tried to console her.

One day the patient hit upon a curious scheme, and she waited not long to carry it into effect. She procured for herself a very old and poor attire, put a hood of tremendous size upon her head, took an old umbrella and a market basket in her hand, and in these habiliments she visited her physician, selecting for the purpose a very rainy day. She had so well succeeded in distorting and disguising herself that the eye even of a lover could scarcely have recognized her. She was compelled to wait a long time in the ante-room of her physician, with many others who, like herself, were seeking relief. At last her turn came.

"Well, my good woman, what have you to complain of?"

"Very bad eyes, doctor," she answered.

He took her to the light and looked into her eyes, but failed to recognize his patient. Shrugging his shoulders, he said:—

"Your eyes are well enough."

"Well!" she said.

"Yes; I know what I am saying."

"But I have been told that I was getting the —a—a—I forget how it is called."

"Amaurosis?"—

"Yes; that is it, doctor."

"Don't you let them make you believe any such nonsense. Your eyes are a little weak, but that is all. Your physician is an ass!"

"An ——!"

"Yes; an ass! Tell him boldly that I say so."

The lady now arose, and in her customary voice said: "Sir, you are my physician; do not you know me?"

The face the sage counselor made is easier to imagine than describe.

"Gracious madam!" He commenced to stammer an apology; but the lady would not listen to him, and indignantly left him. She never saw the gentleman any more.

The Liquor Trade.

THE organ of the liquor interest in New York has taken pains to collect and group all the facts connected with the trade in this country. The amount of tax on spirits collected by the United States in 1872, was $49,475,516.36. This represents about 200,000,000 gallons, worth at wholesale $85,000,000, but which brought at retail about $317,000,000. This aggregates a money interest of over $400,000,000. The beer trade pays a tax to the government of $8,573,496.46. This represents a retail value of over $212,000,000, which, added to the value of the article to the manufactures, represents a money interest of about $300,000,000. The wine trade represents an interest of $75,000,000. The import trade of liquors, beer, and wine represents a retail value of liquors of $27,000,000; of beer $2,800,000; of wines $185,000,000, or a total of nearly $265,000,000. Added to all this, the capital invested in buildings and machinery, &c., together with the expenses connected directly with the trade, the footing is at least $1,500,000,000. And all this enormous expenditure does not contribute a groat to the happiness or longevity of a single human being, but, on the other hand, occasions an untold amount of suffering and premature death. It does make business for the doctors, however.

AN INCIDENT.—A young man went into the office of one of the largest dry goods importing houses in New York, and asked for a situation. He was told to come again. Going down Broadway that same afternoon, opposite the Astor House, an old apple woman, trying to cross the street, was struck by a stage, knocked down, and her basket of apples sent scattering in the gutter. This young man stepped out from the passing crowd, helped up the old lady, put her apples into her basket, and went on his way, forgetting the incident. When he called again upon the importers, he was asked to name his price, which was accepted immediately, and he went to work. Nearly a year afterward, he was called aside one day and asked if he remembered assisting an old apple woman in Broadway to pick up a basket of apples, and, much to his surprise, learned why he obtained a situation when more than one hundred others were desiring the same place. Young man, you little know who sees your acts of kindness. The eyes of others see and admire what they will not take the trouble to do themselves.—*American Messenger.*

To develop in each individual all the perfection of which he is capable, is the object of education.

The Health Reformer.

Battle Creek, Mich., August, 1873.

Progress of the Cause.

THE cause of health reform is onward. Like most all good causes, it has had its extremists, its apostates, and its reverses. These have had a tendency to discourage its friends, and to prejudice the public; yet the true principles of the health reformation were never finding their way to the minds and hearts of the people as rapidly as at the present time.

Great changes in medical practice have taken place within the last twenty-five years. This may be seen in the new systems of practice which have in our day come up along side of the old, claiming equal recognition and patronage. The existence of the many pathies of our time, each represented by men of learning, ability, and extensive practice, is shaking the confidence of the people in the old school. This state of things is gradually wearing away that superstitious confidence of the public in drugs, of which they were ignorant as to their nature, and the people are beginning to feel that they should become intelligent upon the great question of life and health, as well as upon other important subjects. And thus the way is preparing for the true principles of hygiene to obtain with those who claim their God-given right to think for themselves.

There can be no reformation in religion or in morals where the people are held by priestcraft to believe and do just what the priest orders. Neither can the health reformation obtain in the minds of those who are shut up to a superstitious confidence in doctors' drugs, of which they know nothing in regard to their nature and the final results of their influence. The one sits with his ears and heart open to take down what the priest may say, and the other as confidingly and as stupidly opens his mouth to the doctors' drugs. And thus the masses confide their souls with priests and ministers, and their bodies with drug doctors.

As the strength of every form of priestcraft is in the ignorance and superstitious confidence of the people, so is the strength of the drug system in the confidence, and consequent ignorance, of the people upon the subject of life and health. And as the hope of pure religion and purity of morals lies in the candid intelligence of the people, so the great health reformation builds its hopes of success upon the existing spirit of investigation and consequent intelligence of the people.

The burden of our mission is to teach the people how to live so as to be well, and keep out of the doctors' hands. At our Health Institute, located at Battle Creek, the sick are successfully treated. And the HEALTH REFORMER is so practical in its teachings that very many of its constant readers are recovering their health at their homes, so that it is very seldom that any of the oldest patrons of the REFORMER are under the necessity of coming to our Institute for treatment. Their doctor's bill is just one dollar a year for the REFORMER, and twelve cents postage. It is a fact that nine-tenths of the numerous patients who have been treated at our Institute the past year, have been outside of our old denominational friends who have taken the REFORMER from its first existence.

We repeat that the burden of our mission is to teach the people how to live so that those who enjoy health may remain well, and that those who are running down in health may turn from wrong habits to correct ones, and live. And the spirit of the times is, in some respects, favorable to our mission. Public opinion, and the tone of the secular and religious press, are changing upon this subject. We can hardly take up a copy of any of the leading journals of our country that does not contain a recommendation of some one or more of nature's grand remedies, or, more properly speaking, preventives, for disease, such as pure air, pure water, for bathing and other uses, simple, healthful food, proper exercise, and the like. Even in Madame Demorest's *Mirror of Fashion*, for July, 1873, we find good words under the caption, "Use of Cold Ablutions in Fevers, by the French," from which we take the following:—

"They favor the re-establishment of a full, profound, regular perspiration; render the secretions more active; make the skin supple, moist, and fresh; favor the outcoming of the eruption; allay cerebral and other nervous excitement, suppressing headache, coma, delirium, restlessness, and inducing sleep, cause the pulse to fall eight to thirty beats."

And as you pass the streets of our cities and villages, your eye meets the sign, "Cold and Warm Baths." In nearly all the best houses in our cities, country residences, and even in farm houses, there are improved bath rooms. You may find one hundred at the present time where you could hardly find one, twenty-five years ago.

The importance of proper ventilation of churches, school rooms, offices, and private dwellings, is set forth from time to time in the leading, as well as the local, papers of our country. And the free, pure air of heaven, one of God's great preventives and remedies, is recommended to the people.

And the unbolted wheat-meal bread, which the enemies of the health reformation have sneeringly called "bran bread," may now be found, as everywhere known by the worthy name of "graham bread," in all the bakeries of our wide country. Seven years since, all the bakeries of Lockport, N. Y., were searched in vain by one of our traveling party for a loaf of graham bread. Some replied, "We do not make it;" others inquired, "What is that?" Now a respectable portion of the bakers' bread eaten in our cities and villages is made of unbolted wheat meal. It has now become of so common and universal use that every baker knows what you mean by graham bread. Even away up here in the Rocky Mountains, there is not a baker in the little, near neighboring cities of Black Hawk and Central, five miles from where we are penning these facts, but furnishes his patrons with a liberal portion of graham bread. The best of unbolted wheat meal is found at the leading groceries. And the shelves of a leading hardware store in Central City are decorated with a liberal supply of two styles of gem pans, which are in common use by health reformers, for baking light and tender unleavened cakes, made only of pure graham flour and pure soft water.

What the cause of health reform needs, just now, is more live tracts, pamphlets, and books, adapted to the condition and wants of the people, and intelligent and self-sacrificing men and women who can and will properly introduce them everywhere, and solicit subscribers for the HEALTH REFORMER. Every true health reformer should regard our wide country as a vast missionary field, and himself or herself a missionary.

We are happy to report that efforts are being made to prepare, and to immediately publish, just those health publications which the cause demands at this time, to be furnished at reasonable prices. The times call for intelligent, big-hearted, devoted hygienic missionaries, who will assist us in our mission of sending rays of light and truth everywhere, upon the great subject of how to live. Those who enjoy the great blessings of the health reformation owe a debt of gratitude and love to the great Disposer of events, and to the agencies which he has employed in their conversion to the true principles of life and health. And the proper way to pay this debt, as far as it can be paid in this life, is to engage in the happy missionary work of converting others.

A Significant Incident.

BY RALPH E. HOYT.

A FEW days ago, a poor, degraded inebriate was arraigned in a Chicago police court on the charge of beating his wife while drunk. He pleaded guilty to the charge, but declared that he had recently fallen into habits of dissipation in consequence of the *advice and treatment received at the hands of his physician.* In earlier years, the unfortunate man had acquired a strong appetite for alcoholic liquors, but had reformed, several months ago, and was leading the life of a teetotaler, when he was taken very ill, and placed under the care of a doctor who treated him *secundem artem.* As is the case with a majority of the "drug doctors" of the present time, this M. D. believed in alcoholic medication. Whisky, brandy, and other "stimulants," were freely administered to the sick man, for the purpose of "driving away the disease;" and when the patient had so far recovered as to be again on his feet (which he did in spite of the treatment), he found his old appetite for stimulating beverages revived, and this time the chains were fastened upon him more firmly than ever. From a patient, daily quaffing from the whisky bottle by the direction of his attending physician, he became an habitual tippler, then a confirmed sot, and finally a wife-beater.

Such an incident as this speaks volumes in condemnation of alcoholic medication, and yet it is only one among thousands of similar cases, though comparatively few are ever brought out in so public a manner as was this one. I have written and spoken a great deal upon the subject of temperance, and have for years been a working member of one or more temperance organizations, and my experience and observation have led me to believe that there is no obstacle in the way of temperance reform half so formidable as the medical fraternity with their diabolical liquorpathy. No class of persons, not even the liquor sellers themselves, are doing as much toward perpetuating the use of spirituous beverages, and retarding all true reform in that direction, as the men who, claiming to be the teachers of the people in matters of health, give alcohol to the sick and declare that the world could not get along without it. Never was a greater fallacy promulgated; never did mankind embrace an error more destructive of health and happiness. It is sickening to observe how tenaciously many well-educated, influential men, who are prominent as temperance reformers, will cling to the monstrously absurd idea that, while alcohol is one of the worst enemies to a well person, it is

an indispensable friend to the sick. I insist, as I have insisted on many a public occasion, that no substantial, permanent victory can be won by the temperance army anywhere till this fundamental error has been abandoned, and the temperance men and women of the age array themselves upon the "True Temperance Platform," so ably expounded by Dr. Trall.

Having made the temperance question a study for years, and feeling, as I do, that it is not yet correctly understood by the masses, I may, perhaps, at no distant day, write an article, or possibly a series of articles, for the HEALTH REFORMER, on the evils and absurdities of Alcoholic Medication.

Chicago, Ill.

"Women as Workers."

THE work of woman, it is said, should be as the recreation of a goddess. The sentiment may be poetic and pretty, but is quite out of place on this terrestrial sphere. "Life is real; life is earnest," says the poet; and it is, or should be, as real and earnest for woman as for man.

A popular writer, in a recent number of a popular magazine, on the subject of "Women as Workers," presents to my mind many new ideas, some of them as beautiful as new, and still others as inconsistent as they are novel, some of which I propose here to notice. "Man," he says, "not woman, was made for labor." But I am unable to see anything in their mental, moral, or physical natures that indicates such a distinction between them. On the contrary, the Creator said he had made woman a *help*, suitable, or meet, for man. Then, if man was made to labor, it follows that woman was created for the same purpose.

Again, he says that toil is the obdurate foe of woman. It hardens her. This may be true if it be excessive, and would affect man the same. But who does not know that idleness is the bane of woman's life? It is absurd to suppose that a useless, aimless life is more refining to woman than to man, or that it is conducive to happiness. It is also absurd to talk of woman's being too ethereal for this life—too fine and delicate for stern realities. This shrinking from the performance of life's duties, living without a purpose, with nothing to do but caress a lap-dog, thrum the piano, or bury herself in "yellow covers," is as far beneath honest toil as earth is beneath Heaven.

"Could she be relieved of it, or better still, should she never be obliged to toil, her days would be brighter and her power to charm augmented." The exact opposite is the truth, as facts will show. Let a woman who has spent her time in idleness and frivolity be suddenly thrown upon her own resources to obtain a livelihood, the responsibilities of life resting upon her, and immediately she seems changed. All that is pure, and true, and holy, and genuine, is brought into exercise, whereas it would have remained dormant. "She is not daintily nurtured, as she should be"! Three-fourths of the ills of woman's life are owing to the fact that she *is* daintily nurtured. "Vulgar usefulness arrests her growth, and defeats the promise of her future"! The idea is conveyed that she was ordained to a life free from responsibility, that she is elevated above service; but the following seems to me to be the more consistent view of the matter:—

"What women need is not more 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 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."

There is a class of ladies too refined in their own estimation to come in contact with common people or with common duties. But when their final account is rendered, the reproach of misdirected talent and wasted ability will lie at their door, though they may have been honest in the belief that it is vulgar to be useful. By some, all domestic care is considered drudgery, and this writer says that all the reward that women get is their board and clothes. Do they take upon themselves the responsibility of wife and mother for the sake of "filthy lucre"? If they have no higher motive, they are deserving of no better reward.

"After the wife has watched all night at the bedside of her sick husband, she should be requited in legal tender—should be put on equal footing with a common servant and receive a servant's wages"—wages for her "*drudgery*"! ! What price shall she set on her kisses and caresses, her loving words and nightly vigils, her heart's warm sympathies? Would she be willing that another should perform this "drudgery" for her?

It is said that man ever complains when the wife asks for money. But who ever heard of his complaining when she asked for means to obtain necessaries for themselves and their household? This is an age of fashion. Many women are smitten with a mania for fineries; and when their husbands remonstrate, they are set down as in-

corrigible and tyrannical bears. Women waste on their fineries four times what would purchase their comforts. When a man marries, it is the hight of his enjoyment to toil, however arduous, for the support of his wife and family. It is her extravagance that closes the avenues of his heart, and makes him appear to possess a niggard hand.

On the other hand, let the woman toil hard from week to week and from year to year, and share her hard-earned wages with her husband, who unfeelingly spends it for wine and cigars, while their children remain uneducated and destitute, and see if there would be no complaint or withholding of means. Man's work is to bring in money; woman's, to save it, and assist in planning for its proper use. Thus their work is united. And, in order to do her part of the work well, she must be familiar with her household affairs. The woman who is only "daintily nurtured" is found to be a poor counselor and adviser. The difference between his work and hers is not wholly in his favor for gain and hers for hardships.

Is woman more the slave than man? Overwork is as hard for him as for her. He should not work beyond the bounds of reason. His health and happiness are as precious as hers. Is not the woman who toils early and late the companion of him who does the same? Nature has provided her with as many hands as her husband; why should she not use them?

"More happiness is wrecked than reaches home on matrimonial seas." It need not be thus. God did not design it so. The marriage institution was ordained of him in Eden, and must remain sacred while the world stands. It is the false notions of society that makes its chains so galling. The sentiment expressed by Longfellow in the following lines is in point:—

> "As unto the bow the cord is,
> So unto the man is woman;
> Though she bends him, she obeys him;
> Though she draws him, yet she follows.
> Useless each without the other."

It is also said that man is so egotistical that he does not clearly understand woman's "fine feelings," that he overlooks her, and fancies himself her superior. It is these fancied fine feelings that keep so many from being useful. Public opinion applies the whip and spur to man, and makes it dishonorable for him to be idle, and we have no reason to suppose that usefulness will be detrimental to the moral, intellectual, or spiritual growth of any.

J. R. T.

—THE consumption of tobacco in Germany is 155 ounces per man (boys included as men), in Belgium, 145 ounces, and in the United States, 120 ounces. In England only about 66 ounces per man and boy. The consumption in these countries is largely of the American weed.

The Reason Why.

A YEAR or two since, the writer, while engaged in an animated discussion of the diet question, was met with the objection that many vegetarians were dyspeptics. Of course the rejoinder was made that this was owing to the fact that few were willing to adopt the reform in diet until after health was lost and constitution ruined. Although this argument was sufficient to silence the opponent, it has since sometimes seemed a little inadequate to fully meet the objection; and the question has often arisen in my own mind, Why do we often see dyspeptic vegetarians?

Again, a few days ago, while perusing a quite popular work upon hygiene and kindred topics, I noticed a similar statement. The author, a man well known to the public for more than a quarter of a century as a writer and lecturer, declared this to be in accordance with his own experience. After citing quite at length, and in a forcible manner, the usual arguments in favor of a vegetarian diet, making, however, a few unscientific statements, he remarked that, although the argument was so well supported by anatomy and physiology, actual experience demonstrated that the vegetarian theory was unsound. He furthermore apologized for the views which he had published thirty years ago when he was a rigid vegetarian, and advocated the discontinuance of flesh as food and the adoption of a purely vegetable diet. In giving his reasons for this change in his views, he stated that for a short time after adopting the vegetable diet, he felt really beneficial effects; but, after a few years, he found himself becoming a sad dyspeptic. As a remedy, he began to make use of some meat again, and soon adopted his former mode of living, with apparently beneficial results. He now claims, and publishes to the world, that vegetarianism made him a dyspeptic, and consequently a mixed diet, consisting of quite a proportion of flesh, is far preferable. These statements, coming from the source they do, must have considerable influence, and may serve to hinder many from embracing, thus receiving benefit from, one of the important truths of health reform.

While carefully scanning the work referred to, I again asked myself how it could be that such a statement could be made with truthfulness. In this case, I thought I was able to discover "the reason why." By a careful re-reading of the writer's arguments in favor of vegetarianism, I noticed one in which a comparison was drawn between the pleasure experienced from sitting down at a table loaded with flesh of different kinds, prepared in a variety of ways, and partaking of the savory viands, and the gustatory enjoyment which might be derived from a repast consisting of a variety of cakes, pies, pastry, sweet meats, etc. The manner in which the author lauded the latter class of articles strongly indicated a de-

cided preference for them. All difficulty in regard to the cause of the dyspepsia instantly disappeared, for it immediately became evident that it was only the result of abandoning one bad habit for a worse one. It seemed at least very probable that the gentleman, while relinquishing the use of meat, had very unwisely adopted in its stead a large quantity of sugar in various forms, doubtless eating largely of sweetcake, preserves, etc., a practice much worse than that of flesh-eating. From various remarks in his book, this conclusion did not seem to be at all unjust, or ill-founded, and has since been confirmed by the testimony of a gentleman who was intimately acquainted with him at the time. He stated that having heard of him as a rigid vegetarian he was astonished beyond measure, upon making his personal acquaintance, to find him possessed of a remarkable propensity for indulging in sweet meats, being an inveterate candy-eater, and always keeping on hand a good supply of toothsome dainties. As the result of the injurious practice, he had become yellow, bilious, and dyspeptic, and yet he now charges vegetarianism with making him thus! The absurdity and injustice of the charge must be apparent to every one.

The cause of health reform, like every other good and noble enterprise, has often suffered reproach on account of reformers of the kind above mentioned. They class themselves among those of the genuine stamp, while they are really counterfeit. Those who are investigating these subjects must not take such pseudo-reformers as their standard. And we would lay it down as a rule with no exceptions, that when you find a dyspeptic vegetarian you will be sure to find one of two things true. Either he is a person who adopted the reform as a means of restoring an already ruined constitution, or else he still indulges some appetite or habit which is entirely inimical to health. It may be the immoderate use of sugar, over-eating, over-working, want of exercise, or a hundred other improper and hurtful practices; but you will always be sure to find a "reason why," and that vegetarianism can be entirely exhonorated from all responsibility in this matter.

J. H. K.

The Healthfulness of Lemons.

When people feel the need of an acid, if they would let vinegar alone, and use lemons or apples, they would feel just as well satisfied and receive no injury. A suggestion may not come amiss as to a good plan, when lemons are cheap in the market. A person should then purchase several dozen at once, and prepare them for use in the warm, weak days of the spring and summer, when acids, especially citric and malic, or the acid of lemons, are so grateful and useful. Press your hand on the lemon and roll it back and forth briskly on the table to make it squeeze more easily; then press the juice into a bowl or tumbler—never into a tin; strain out all the seeds, as they give a bad taste. Remove all the pulp from the peels, and boil in water—a pint for a dozen pulps, to extract the acid. A few minutes' boiling is enough; then strain the water with the juice of the lemons; put a pound of white sugar to a pint of the juice; boil ten minutes, bottle it, and your lemonade is ready. Put a tablespoonful or two of this lemon syrup in a glass of water and have a cooling, healthful drink.

How to Walk Well.

It seems an easy enough matter to walk, and yet very few ever learn to do it properly. One can reckon among his acquaintances very many fine-looking men and women, but, perhaps, not one of the entire number is a good walker. The ancient poet tells how the goddess was known by her walk, but that distinguished mark of exalted birth seems to have passed away with the old mythological days. We talk of lordly port and queenly bearing; but such scions of royalty as have visited our shores seem to have very little that is regal in their personal carriage. We are not without fine specimens of male and female beauty, but we are too often disenchanted when we see these Venuses and Adonises moving about. There is no real reason for this unseemliness of motion. Men and women are particular enough about their dress; but they shamble, trot, or waddle along without much apparent regard for the appearance they make.

One of the secrets of good walking is to be able to balance the body easily, first on one foot, and then on the other. When the soldier has learned to stand steadily on one foot, he then can walk without swaying, and preserve that steadiness in marching, which is always a mark of well-drilled troops. So if civilians wish to walk as well as soldiers, they must, like them, first learn something of the mysteries of balancing. But it is not an easy thing to stand steadily on a narrow sole with a small heel, and this is just the difficulty with the walking of fashionable people. The sandaled feet of those ancient beauties, whose forms have come down to us preserved in marble, are beautiful in their unrestrained naturalness, and are very unlike those of modern belles, or beaux, either, for the matter of that. With low heels and broad soles, it is not difficult to balance the body, while by drawing in the chin, the shoulders are naturally thrown back, the lungs given full opportunity to expand, and the head carried erect. Fashionable boots and high heels must be discarded, or it is useless to make the experiment of learning to walk well.—*Sel.*

Nothing is too petty for men to be proud of.

The Lost Arts.

THE monuments, the paintings, and even the woven fabrics, of Egypt, all attest the enduring nature of their workmanship and their capability of resisting the corroding and wasting effects of time. The pyramids appear but little the worse for the storms of ages, and the traveler regards them with the awe and reverence inspired by the mystery of their erection, and the almost equal mystery of their continued existence unharmed after the lapse of almost four thousand years.

Mementos of our own Republic, not yet one hundred years old, may be seen in the Patent Office at Washington in a condition of hopeless decay, while the mummy cloths of Egypt, although woven over three thousand years ago, seem as firm of texture as when fresh from the ancient looms. The far-famed purple dye of Carthage, supposed to have been obtained from a small shell-fish of the Mediterranean, has never been equaled by modern chemists, who have thus far failed to find anything possessing its peculiar brilliancy and permanency of color.

The frescos of Michael Angelo are the wonder and admiration of every appreciative person who has looked at them on the lofty ceilings of the Sistine chapel at Rome ; but compared with the mural paintings of Egypt, traced centuries before, they look dim and almost lusterless. The mural paintings are as bright as the Nile itself, and still appear likely to claim the admiration of visitors for thousands of years to come. The colors of the ancients when exposed for years to moisture do not lose their brightness, while their woven fabrics, long buried in the ground, resist decay, and even timber, preserved by some unknown process, defies the action of the elements, and remains nearly as sound as in the time of the Pharaohs. It is said that numerous experiments have been tried of subjecting the ancient paintings to the flames of a gas jet, but the heat thus imparted failed to destroy them. Egyptian cement, as is well known, is almost imperishable, uniting wood, glass, stone, iron, and other articles together so firmly as to resist all efforts to sever them at the point of union. Fire and water will not destroy this cement, and it is practically indestructible. This substance is supposed to have been used in embalming their dead, preserving their works of art, and making their foundations durable.

Even in our own country have been found implements evidently made by an ancient but now extinct race, the manufacture of which may be properly classed among the lost arts. In the copper mines of Lake Superior, in old pits long since abandoned, are found copper tools with a temper and hardness not excelled, if equaled, by the best steel tools of the present day. Chisels and hammers of copper, huge granite hammers, specimens of wood, indestructible pipes, and other articles, are found here and elsewhere, denoting the superiority of this ancient people in many of the arts, and also affording abundant evidence that they were highly proficient in the working of metals.—*N. Y. Mercantile Journal.*

The Altitude at Which Men Can Live.

THERE has been a great deal of discussion as to the altitude at which human beings can exist, and Mr. Glaisher himself can tell us as much about it as anybody. In July, 1872, he and Mr. Coxwell ascended in a balloon to the enormous elevation of 37,000 feet. Previous to the start, Mr. Glaisher's pulse stood at seventy-six beats a minute ; Coxwell's, at seventy-four. At 17,000 feet, the pulse of the former was at eighty-four ; that of the latter, at one hundred. At 19,000 feet, Glaisher's hands and lips were quite blue, but not his face. At 21,000 feet, he heard his heart beating, and his breathing became oppressed ; at 29,000, he became senseless ; notwithstanding which, the æronaut, in the interest of science, went up another 8,000 feet, till he could no longer use his hands, and had to pull the strings of the valve with his teeth. Æronauts, who have to make no exertions, have, of course, a great advantage over members of the Alpine Club, and those who trust their legs ; even at 13,000 feet these climbers feel very uncomfortable, more so in the Alps, it seems, than elsewhere.

At the monastery of St. Bernard, 8,117 feet high, the monks become asthmatic, and are compelled frequently to descend into the Valley of the Rhone for—anything but "a breath of fresh air ;" and, at the end of ten years' service, are obliged to give up their high living, and come down to the usual level. At the same time, in South America, there are towns (such as Potosi) placed as high as the top of Mont Blanc, the inhabitants of which feel no inconvenience. The highest inhabited spot in the world is, however, the Buddhist cloister of Hanle, in Tibet, where twenty-one priests live at an altitude of 16,500 feet. The brothers Scglagintweit, when they explored the glaciers of the Ibi-Gamin, in the same country, encamped at 21,000 feet, the highest altitude at which a European ever passed the night. Even at the top of Mont Blanc, Prof. Tyndall's guides found it very unpleasant to do this, though the professor himself did not confess to feeling so bad as they. The highest mountain in the world is Mount Everest (Himalaya), 29,003 feet, and the condor has been seen "winging the blue air" 500 feet higher. The air, by-the-by, is not "blue," or else, as De Saussure pointed out, "the distant mountains, which are covered with snow, would appear blue also ;" its apparent color being due to the reflection of light. What light can do, and does, is marvelous ; and not the least is its power of attraction to humanity.—*Chambers' Journal.*

Popular Stupidity.

NOTHING can be more surprising than the ridiculous stupidity which the masses have ever manifested in making themselves the willing dupes of their relentless persecutors and most dangerous enemies, the drug doctors. It is indeed amazing that people of common sense and sane minds should shut their eyes to reason and even decency, and swallow with avidity the most abominable and loathsome compounds; but such seems to have been the case for several hundred years, at least, and not only among enlightened nations, but among those possessed of less civilization, but, in some respects, better sense. The *Bistoury*, a quarterly medical journal, informs us that an Eastern physician has in his possession the following prescription, which was sent by a famous London physician to John Winthrop, governor of the colony of Massachusetts Bay, A. D., 1663, as a "remedy against fevers, poysons, small-pox, the plague, and such like":—

"In the month of March take Toades, as many as you will, alive; put them into an earthan pott, so ye bottom may be uppermost; putt charcoales round about it, and in ye open arye, *not in an house*. Sett it on fire; when cold, take out ye toads and in iron mortar pound them well and *tearce* them (whatever that may be)—a black powder will result. Of this, you may give a dragme inwardly in any affection. For prevention ½ a dragme will suffice. Moderate ye dose according to ye strength and constituton of ye partie."

The *San Francisco Bulletin* gives the following description of some of the medicines used in that city at the present time, by the Chinese doctors:—

"The ingredients of a witch's cauldron, as described by the poet, could not have been more repulsively disgusting than are the articles and compounds shipped to the Chinese physicians of this city from their native country and used as medicines here. There seems to be just at the present time an extra demand for venomous serpents closely resembling the rattlesnake, of which hundreds are received constantly. A custom-house official brought a specimen of these cheerful-looking creatures to this office yesterday—a coiled snake of about four feet long, fanged, and with hideous head-scales like a crest. How these animals are taken by patients of Chinese doctors is not known. One would be a fair dose if disguised in a coating of sugar. They may be taken in sections three times a day, as they are desiccated, or may be boiled down or pulverized, and taken in powders or rolled into pills. Lizards are in nearly as great demand as the snakes. These also are dried and sent over in packages, together with hundreds of other loathsome things, all of which are consigned to the Chinese physicians and used by them in their practice."

Another exchange informs us of a new discovery in the science of therapeutics which has been made by the enterprising American citizens of the same city. It is claimed that coal gas has been found to be beneficial to consumptives and other persons affected with lung and throat diseases and troublesome coughs. So popular has the new remedy become that large numbers of afflicted people resort to the gas works of the city for the purpose of inhaling the noxious and poisonous gases escaping from the heated retorts. The crowd became so great that the gas company prepared seats and other accomodations for the comfort and convenience of the poor dupes. A few months ago, when the gas men of New York city were on a strike, their places were supplied by Italians. But so fearful was the effect of the poisonous gases which they were obliged to inhale, that scores of them fainted, and dozens at a time might be seen lying insensible. And yet there are people who have the most implicit confidence that these same foul, offensive emanations are potent agents to restore them to health and rigor. K.

WHAT IS UNDER THE HOUSE?—One great fault in building houses in both city and country is to make them too low on the ground. There should be distance enough to allow a free circulation of air, say three feet, between the floor and the earth. All rubbish, shavings, etc., should be cleaned away before siding up, and a good ventilation should be kept open to insure dry, sweet air under the floors. Much sickness is caused to many families from low underpinning, and close, damp, stagnant air, carrying miasma into the lower rooms through the floors of dwellings. Many houses are built upon flat ground, and the earth thrown around the outside, making a sink under the house to hold water. This is wrong. It is much better to raise the ground under the house, and even gravel and cement before building. At any rate, ventilation under the house should always be attended to. We do not believe in cellars under the house in this climate, but whenever there is a cellar, it should be open, and always kept clean, of decaying substances. Guard against the enemies to health that lurk under a house.—*Ex.*

Perfumery.

NO ONE has a right to do for his own personal gratification that which is unpleasant or disagreeable to others. A certain kind of perfume may be pleasant to some, while to others it will be disagreeable or even sickening; therefore, a person has no more right to use perfumery while in the company of others than he has to puff tobacco smoke into other people's faces. A person who will do either, neither knows what true politeness is, nor cares for the comfort and welfare of others. If one wishes to smoke or use perfumes, let him do it in private, not in public.—*Sel.*

How to Give Children an Appetite.

GIVE children an abundance of out-door exercise, fun, and frolic; make them regular in their habits, and feed them upon plain, nourishing food, and they will seldom, if ever, complain of a lack of appetite. But keep them overtasked in school, confined closely to the house the rest of the time, frowning on every attempt at play; feed them upon rich or high-seasoned food, candies, nuts, etc., allow them to eat between meals, and in the evening, and you need not expect them to have good appetites. On the contrary, you may expect they will be pale, weak, and sickly.

Do n't cram them with food when they do n't want or have no appetite for it—such a course is slow murder. If they have no appetite, encourage, and if need be, command them, to take exercise in the open air. Do n't allow them to study too much, and especially keep them from reading the exciting light literature which so much abounds in our book-stores and circulating libraries. In addition to securing exercise for the children, as above, change their diet somewhat; especially if they have been eating fine flour, change to coarse or graham flour.

TAKE CARE OF YOUR HEALTH.—Girls, take care of your health—it is your capital in life. With it, you can do great and noble things; without it, the little duties of life become a burden, and your time, which should be spent in good works, must be given to your own personal wants. Do not think that exposure will not injure you because you do not suffer at the time. Do not go, with only a thin gauze covering over your shoulders, in the night air. Do not change heavy shoes for thin ones, to go riding. *Follow no fashion that injures the health.* If you want to be old and broken down at thirty, pay more attention to what some unscrupulous leader of fashion says than to nature's laws. Loosen your clothing about your waist. Draw in a long breath, and, if your clothes press against you, you may know they are worn too tight. They can be worn sufficiently loose only by letting the weight come upon the shoulders. If you would have a clear, fresh complexion, free from eruptions, give your blood a chance to circulate and purify itself.—*Ex.*

THE SECRET OF HEALTH.—First, keep warm. Second, eat regularly and slowly. Third, maintain regular bodily habits. Fourth, take early and very light suppers, or, better still, none at all. Fifth, keep a clean skin. Sixth, get plenty of sleep at night. Seventh, keep cheerful and respectable company. Eighth, keep out of debt. Ninth, do n't set your mind on things you do n't need. Tenth, mind your own business. Eleventh, do n't set up to be a sharp of any kind. Twelfth, subdue curiosity.

A PORTLAND sea-captain, who has been absent from home some eight years, arrived the other day. Calling upon a lady friend soon after his arrival, he was pained to see what he supposed to be the result of some terrible injury to the spine. He delicately questioned her upon the subject, but she was apparently at a loss to comprehend his meaning. Finally, after much conversing at cross-purposes, the lady discovered that the old salt seriously supposed her pannier to be a tumor or some unsightly excrescence, caused by disease of the spine.

What Sleep Will Cure.

THE cry for rest has always been louder than the cry for food. Not that it is more important, but it is often harder to get. The best rest comes from sound sleep. Of two men or women otherwise equal, the one who sleeps the best will be the most moral, healthy and efficient. Sleep will do much to cure irritability of temper, peevishness, uneasiness. It will restore to vigor an overworked brain. It will build up and make strong a weary body. It will do much to cure dyspepsia, particularly that variety known as nervous dyspepsia. It will relieve the languor and prostration felt by consumptives. It will cure hypochondria. It will cure the blues. It will cure the headache. It will cure neuralgia. It will cure a broken spirit. Indeed, we might make a long list of nervous maladies that sleep will cure.

The cure of sleeplessness, however, is not so easy, especially in those who carry grave responsibilities. The habit of sleeping well is one which, if broken up for any length of time, is not easily regained. Often, a severe illness, treated by powerful drugs, so deranges the nervous system that sleep is never sweet after it; or, perhaps, long-continued watchfulness produces the same effect; or hard study, or too little exercise of the muscular system, or tea and whisky-drinking and tobacco-using. To break up the habit are required:

1. A good, clean bed.
2. Sufficient good exercise to produce weariness, and pleasant occupation.
3. Good air, and not too warm a room.
4. Freedom from too much care.
5. A clean stomach.
6. A clean conscience.
7. Avoidance of stimulants and narcotics.

For those who are overworked, haggard, nervous, who pass sleepless nights, we commend the adoption of such habits as shall secure sleep, otherwise life will be short, and what there is of it sadly imperfect.—*Herald of Health.*

A TART temper never mellows with age, and a sharp tongue is the only edged tool that grows keener with constant use.

MRS. WHITE'S DEPARTMENT.

SUNSET IN THE FOREST.

COME with me unto the forest,
And on nature's beauty gaze;
See those radiant smiles of sunlight
Spread o'er earth their golden rays;
And the western face of heaven,
Smiling in its gorgeous sheen,
Glitters like a silver ruby,
In the deep horizon green!

Look on yonder pine-clad mountain,
Crested with its leafy plume,
Now 'tis wild with floating amber,
Flinging back its rich perfume;
And the trees their heads are bending,
In the shadow's deep'ning hue;
To the setting sun they're bowing,
Nodding him a calm adieu!

Hark! from leafy dell, that murmur,
Softly whispering on the air,
Like pure strains of richest music,
Sung by the Ædolœ fair!
Hear it float away toward heaven,
Blending sweetest notes of love,
With melodious rapture singing,
To fair nature's God—above!

Seems it not that earth is listening
To that joyous evening lay?
Is it not an angel's farewell—
Whispered to departing day?
Seems not yonder sun to linger
In his gold-enameled bower?
With his glowing adoration,
Owning a superior Power?

Is there aught in all the city,
With its bustling pride and care,
To thy wearied heart so soothing
As this balmy, forest air?
Is there aught in wealth's gay splendor,
Or in worldly fame or power,
So like Heaven's ante-chamber,
As this forest's sunset hour?

—*Hattie N. Graves.*

Life in the Rocky Mountains.

OUR journey from Denver, Colorado, to the mountains was pleasant. While in Iowa, we had suffered languor from the extreme heat. In Denver, we also found it uncomfortably warm. But as we passed through the narrow valleys, up the course of the winding streams, we were refreshed by a cool breeze, and felt invigorated.

As we wound our way zigzag among wooded hills, and rocks, and mountains, we could frequently see no opening before us; but, as we moved on, a depression appeared, a mere pass, on either side walled in by huge rocks, piled one above another, rising almost perpendicularly, towering toward heaven, while mountain tops rose above mountains. There, barrenness is partially relieved by stunted shrubs, and vines which cling to every niche and crevice.

We had peculiar sensations of awe mingled with delight at the grand and varied scenery. As we advance, the lower mountains are covered with evergreens and poplars, and are ornamented with rich flowers of varied beauty. From there, we could look down deep ravines, through which a swift rivulet was dashing madly over the rocks, in keeping with the wild, romantic scenery. The solemn notes of the mourning dove sounded with startling distinctness, breaking the silence which reigned around us. I was frequently reminded of the wilderness of temptation where our Redeemer overcame the powerful foe in man's behalf.

The grandeur of the scenery viewed from different points as we moved forward, was itself worth all that journey. The solitude of the road was occasionally relieved by a house nestled close to the foot of some mountain, while around it, patches of the little valley were cultivated, giving the whole an air of civilization. Cattle were feeding high upon the steep mountains, and it was a question with us how they could retain their footing.

We are now settled in our quiet and pleasant mountain home. Mr. Walling has furnished us with a comfortable house, situated at the foot of a little valley, surrounded by hills and mountains. Just before the door is a swift-running stream of the purest and coldest soft water, coming from the mountains. We have a full view of the Snowy Range, upon the top and sides of which the snow ever remains.

The first day of July, the snow lay upon our piazza one inch in depth. The range was entirely covered with snow. The sun soon shone forth, dispelling the clouds, and next morning patches of green began to appear between the fields of snow.

We have more bright, sunshiny days here than in any other place I have visited. And yet the weather is cool and agreeable. We have not had one entire day of cloudy weather since coming to Colorado. Clouds hide the sun for a few hours, and then he rides forth, shining again in all his glory.

The mountains and valleys are thickly adorned with the fairest flowers of every tint and hue, giving the appearance of a flourishing flower garden. Upon the mountains and in the valleys, sweet-scented herbs and shrubs are interspersed among the flowers. The atmosphere is pure. I enjoy taking deep, full inspirations of the pure air. This is the most delightful country in which to enjoy sleep, for there is not that oppressive heat to provoke wakefulness.

The face of nature possesses a charm for me. The naked, towering rocks, the mountains covered with noble evergreen trees, and beautiful with rich variegated flowers, make a lovely picture. The summer breezes move the lofty pines, swaying their branches, and bowing their tops as if in adoration of their Creator. These scenes display in a most

impressive manner the love, power and glory of God in his created works.

We are in this, our mountain home, reminded of the promise made to the children of Israel, that they should inherit a land of hills. I love the hills and mountains and forests of flourishing evergreens. I love the brooks, the swift-running streams of softest water which come bubbling over the rocks, through ravines, by the side of the mountains, as if singing the joyful praise of God.

It is impossible for us to get lonely or homesick among the grand old hills and mountains. Our thoughts are company for us. We love to contemplate the works of God as seen in nature. Our Heavenly Father has spread out before us nature's beautiful scenery to charm the senses, leading us to associate the perfection seen in his created works with his love, goodness and glory.

We have, here in the mountains, a view of the most rich and glorious sunset it was ever our privilege to look upon. The beautiful picture of the sunset, painted upon the shifting, changing canvas of the heavens by the great master Artist, awakens in our hearts love and deepest reverence for God. The surpassing loveliness of the blended colors of gold, silver, purple, and crimson, painted upon the heavens, seem to speak to us of the amazing glories within. As we stand almost entranced before this picture of nature's unsurpassed loveliness, contemplating the glories of Heaven of which we have a faint reflection, we repeat softly to ourselves, "Eye hath not seen, nor ear heard, neither have entered into the heart of man, the things which God hath prepared for them that love him."

MOVEMENTS.

We take movements a portion of each day, that we may regain and enjoy health. In order to strengthen the arms and chest, we have taken excellent movements in scrubbing woodwork, sweeping floors, washing dishes, and washing clothing upon the old-fashioned rubbing board, which we would recommend as a far better instrument to strengthen the arms and chest than the back-breaking washing machines.

We take movements to strengthen the ankles and muscles of the limbs in climbing the mountains, prospecting, and gathering flowers. And frequently we descend with our arms loaded with broken wood, which is scattered plentifully upon the mountains. We are becoming strong by healthful exercise. We enjoy physical exercise after close application to writing several hours each day. We sometimes become weary, but we rest and sleep well through the night, and in the morning feel fresh and ready for our day's duty. I have learned by experience that if we would have health, we must take a proper amount of active exercise. If we get into a perspiration, this will not injure us, if we are careful not to expose ourselves to a current of air.

Proper exercise, daily, strengthens the muscles, aids digestion, and induces sleep. This, with taking full inspirations of good air, combined with plain, nourishing diet, free from grease and spices, avoiding pastry and unhealthy condiments, will do much to restore health to the invalid. Those who would enjoy the blessings of health and strength must have a proper amount of exercise daily. We should never be ashamed of labor. God has shown us that employment is ennobling, in that he gave the sinless representatives of the race something to do. They were to labor, to dress and keep the garden.

It is nature's law that different faculties of the mind, as well as the muscles, lose in a great degree their power if not exercised. We want exercise in the open air as well as in-doors. Nothing short of the pure, free air of heaven will answer the demands of the system.

E. G. W.

The Daughters of Zion.

THERE are very many daughters in the land. There are many who profess to be the "Daughters of Zion." But who *are* the Daughters of Zion? How many good old Ruths are there? How many Sarahs and Rebeccas? How many Marys and Marthas? Who can tell us where Dorcas may be found? Can you? How many of those beautiful, oriental emblems of Zion have we in our midst at the present day? How many young women of our land can call themselves the "Daughters of Zion"? There are in the United States more than two hundred thousand young women "who toil not, neither do they spin," who are yet clothed like lilies of the valley. Are these the "Daughters of Zion"? They thrum the piano, and a few of the more dainty, the harp or guitar; they walk, as the Bible says, "softly," lest brisker movements might snap the tapes drawn to their utmost tension. They have read romances and been to theaters. They have wrought algebraic solutions on the blackboard, and have shown themselves no mean proficients in the casuistry of Paley. They are, in short, the very roses of the garden. But, let me ask, Are these the "Daughters of Zion"?

Go with me into the interior villages of our rural districts. The fair one sits down to clink the wires of the piano. We see the fingers displayed on the keys, which, we are sure, never washed a handkerchief, never prepared a dinner, or made a garment for her robust brothers. We need not enter in person. Imagination sees the pretty one erect on the music stool, laced and pinioned, flowing sleeved, and deformed with hair shorn from other scalps, and reduced to a questionable class of ringlets or water-fall (*secundo more*), dinging, as Sawney would say, at the wires, as though she could, in some way, beat out of them music,

amusement, and a *husband*. Are these the "Daughters of Zion"? Look at her taper and cream-colored fingers; how they glisten with jewels. Is she a utilitarian? Is she a daughter of Shiloh come to the dance, where every man may catch himself a wife? (Judges 21 : 21.)

Ask her when she has beaten all the music out of the instrument, Pretty fair one, canst thou talk to thy poor father so as to beguile him out of the headache or rheumatism? Canst thou repeat the Lord's prayer? Thou wast a chemist, I remember, at the examination; canst thou compound, prepare, and afterwards boil or bake a good pudding? Say, lady, canst thou make one of the hundred subordinate ornaments of thy fair person? In short, tell us thy use in existence, except to be contemplated as a beautiful picture. Say you, "*We are the Daughters of Zion*"? Did the daughters of Zion possess more surface than solidity? Did they walk and talk, frolic and dance, and

"Trip the light, fantastic toe
Till the wee small hours of the morning,"

as though their brains were in their heels? Did they? Oh! no, no! They did *not* do so. The daughters of Zion were the humblest and noblest daughters of the land. They were the most beautiful, because they adorned themselves with divine wisdom. They were the most lovely, not because their eyes rolled in dazzling splendor, not because their lips were sculptured in lines of perfect beauty, but because they were *good;* because they loved the patriarchs and prophets; because they loved, not this world, but poor sinners; because they loved God.—*Sel.*

Flies in the Sick Room.

You may drive them out with a brush, but, unless something is done to render the place uninviting to them, they will return immediately. There are many weeds or plants emitting an empyreumatic odor which answer well for the purpose. Of such to be found about the country in this neighborhood, I know none more effectual than the wild chamomile, a species of anthemis, known also as cotula, or Mayweed. The odor of this plant is not at all disagreeable, and branches of the weed when in flower, or some of the dried flowers, scattered about a room, will soon rid it of all flies.

Another means, perhaps quite as efficient and certainly more easily resorted to, is to throw some powdered black pepper on a hot shovel and carry it about the room. The generation of empyreumatic vapors in the same way from other spices will also, it is said, answer the purpose. A few drops of carbolic acid or creosote, on a cloth hung up in a room or used in the dressings, would probably be effectual, but the odor is not usually so acceptable to one's olfactories.

Exercise.

With regard to merely bodily exercise, it is to be observed, in the first place, that we have no fewer than four hundred muscles, each designed to serve some particular end in locomotion, or in operating upon external objects. A sound state of body depends very much upon each of these muscles being brought into action in proper circumstances, and to a suitable extent. There is even a law, operating within a certain range, by which each muscle will gain *in strength and soundness* by being brought into a proper degree of activity.

The process of waste and renovation may be said to be always going on in the body, but it does not go on with permanent steadiness, unless the muscular system be exercised. Whenever one of the organs is put into exertion, this process becomes active, and the two operations, of which it consists, maintain a due proportion to each other. A greater flow of blood and of nervous energy is sent to the organ, and this continues as long as it is kept in activity. When one state of action follows close upon another, the renovating part of the process rather exceeds the waste, and an accretion of new substance, as well as an addition of fresh power, takes place. On the contrary, when an organ is little exercised, the process of renovation goes on languidly, and to a less extent than that of waste, and the parts consequently become flabby, shrunken, and weak. Even the bones are subject to the same laws. If these be duly exercised in their business of administering to motion, the vessels which pervade them are fed more actively with blood, and they increase in dimensions, solidity, and strength. If they be little exercised, the stimulus required for the supply of blood to them becomes insufficient; imperfect nutrition takes place; and the consequences are debility, softness, and unfitness for their office. Bones may be so much softened by inaction as to become susceptible of being cut with a knife. In a less degree, the same cause will produce languor and bad health.

It is of the utmost importance to observe that the exercise of any particular limb does little besides improving the strength of that limb; and that, in order to increase our general strength, the whole frame must be brought into exercise. The blacksmith, by wielding his hammer, increases the muscular volume and strength of his right arm only, or if the rest of his body derives any advantage from his exercise, it is through the general movement which the wielding of the hammer occasions. One whose profession consists in dancing or leaping, for the same reason, chiefly improves the muscles of his legs. The right hands of most persons, by being more frequently employed than the left, become sensibly larger, as well as stronger. A still more striking illustration

of the principle is to be found in a personal peculiarity which has been remarked in the inhabitants of Paris. Owing to the uneven nature of the pavement of that city, the people are obliged to walk in a tripping manner on the front of their feet; a movement that calls the muscles of the calves of the legs into strong exertion. It is accordingly remarked that a larger proportion of the people of Paris are distinguished by an uncommon bulk in this part of their persons than in other cities.

In order, then, to maintain in a sound state the energies which nature has given us, and, still more particularly, to increase their amount, *we must exercise them.* If we desire to have a strong limb, we must exercise that limb; if we desire that the whole of our frame should be sound and strong, we must exercise the whole of our frame. It is mainly by these means that health and strength are to be preserved and improved. There are rules, however, for the application of these laws of our being.

1. That bodily exercise may be truly advantageous, the parts must be in a state of sufficient health to endure the exertion. A system weakened by disease or long inaction, must be exercised very sparingly, and brought on to greater efforts very gradually; otherwise, the usual effects of over-exercise will follow. In no case must exercise be carried beyond what the parts are capable of bearing with ease; otherwise, a loss of energy, instead of gain, will be the consequence.

2. Exercise, to be efficacious even in a healthy subject, must be excited, sustained, and directed by that nervous stimulus which gives the muscles the principal part of their strength, and contributes so much to the nutrition of parts in a state of activity. To explain this, it must be mentioned, that to produce motion requires the co-operation of the muscular fiber with two sets of nerves, one of which conveys the command of the brain to the muscle, and causes its contraction, while the other conveys back to the brain the peculiar sense of the state of the muscle, by which we judge of the fitness of the degree of contraction which has been produced to accomplish the end desired, and which is obviously an indispensable piece of information to the mind in regulating the movements of the body. The nervous stimulus thus created, will enable a muscle in the living frame to bear the weight of a hundred pounds, while, if detached, it would be torn asunder by one of ten. It is what causes men in danger, or in the pursuit of some eagerly-desired object, to perform such extraordinary feats of strength and activity. In order, then, to obtain the advantage of this powerful agent, *we must be interested in what we are doing.* A sport that calls up the mental energy, a walk toward a place which we are anxious to reach, or even an exercise which we engage in through a desire of invigorating our health and strength, will prove beneficial, when more of actual motion, performed languidly, may be nearly ineffectual.

3. The waste occasioned by exercise must be duly replaced by food; as, if there be any deficiency in that important requisite, the blood will soon cease to give that invigoration to the parts upon which increased health and strength depend. —*Sel.*

A Foolish Practice.

One of the unwisest things which persons do, in the sphere of ordinary social life, is, when having friends to breakfast or dinner, to urge them to eat. I scarcely ever sit down to a friend's table but what I am pestered with solicitations on the part of my host or hostess to take something more to eat; just as though I had no mind of my own, and, if not guided and directed by them, would fail to supply myself with the food needful for me. Now, hygienists ought to have sense enough to be above this kind of folly. In the first place, we ought all to live so simply that our appetites should be sauce for our food. Then, however simple and plain the food presented, we should eat with relish, and cease to eat when we had taken enough. Those who cook for friends should have politeness enough to see that they are cared for sufficiently, and when declining to take more, not to urge them to do so. Gluttony, good friends, is a sin. What poor, silly notions we have in respect to social vices. The woman who not for her right hand would ask me to drink a glass of wine, the man who would as soon think of robbing me of my purse as to ask me to drink alcoholic liquors in a saloon or at his private table, has no clearer insight into the true philosophy of appetitial enjoyment than to press me to gorge my stomach with food, and thus make myself dietetically a glutton. Let all who have foresworn the old way of making drunkards, also foreswear the way whereby gluttons are made. Let us live soberly and righteously in the world, having ways, plans and habits of our own, which are commendable because they direct persons to higher and nobler feelings and efforts than those which lie alone within the gratification of the appetites and passions. There is no need of having a table nakedly spread because nobody eats to be a glutton thereat. There is no need of having social relations uncompanionable and cheerless because we are determined to glorify God in our bodies as well as our spirits. True hilarity and joyousness are the proper attendants of sobriety and moderation. Please to bear this in mind, and so let us eat and drink as not to bring condemnation on ourselves. —*Sel.*

By taking revenge, a man is but even with his enemy; but in passing over it, he is superior.

Sunshine in Dwellings.

THE time will very likely come when sunshine, or sunlight, will be so utilized as to be the entire remedy used for very many diseases. That it is a wonderful vitalizer, none can doubt who know anything about it.

But how many houses are constructed with a view to getting all the sunshine possible, especially when so much is needed as in winter and spring? The living, or sitting-room, at these seasons of the year at least, should have a full southern exposure, with large windows to let in the sunshine. Sleeping rooms, wardrobes, closets, passage-ways, should receive the cleansing, vivifying influence of the sun. Sickly persons should court the sunshine as much as possible—sit in it, lie in it, luxuriate in it. It does n't cost anything, only appreciation.

A room warmed neither by the sun nor by fire is unhealthy, and not fit for human habitation. It is a poor theory that sends men, women, or children, off into a cold room to sleep, on health principles, when warmth has been excluded for a day, or a week, or perhaps months. The change in the temperature of a room, having both fire and sunshine, after the sun goes down, is exceedingly marked. A perceptible chill is felt.—*Sel.*

The Dust We Breathe.

A MICROSCOPIST, Mr. Dance, F. R. A. S., has been examining the dust of cities. The result is not pleasing. In every specimen, animal life was abundant, the most so at the hight of five feet; just about the hight of the mouth of passengers, and is there ready to be swallowed or inhaled. What has been mysterious in the history of plague and pestilence may receive a partial solution. Take cholera for example. It has been shown by positive evidence that this disease is not propagated but by actually swallowing the cholera poison. The least particle of this taken into the stomach will cause an attack. A small quantity of this matter drying on the floor may poison a house full of people. Nurses and physicians in a pure atmosphere are not affected, although they may inhale a full breath of a patient in the last stages of the cholera. One of the lessons to be learned from these interesting researches of Mr. Dance is that the watering-cart should be regarded as an important hygienic aid, supplemented by careful scavengering.—*Sel.*

FESTUS thinks that women who have to earn their bread by the sweat of their brow, lose all that delicacy and refinement which are the chief ornaments of the sex. We cannot at all agree with that opinion: on the contrary, we know many women who are obliged to work for their living, and yet are not deficient in any of the true feminine graces—except that they have their own ideas about what is right and wrong, and are not, like reeds, bending to every wind, nor, like wax, ready to receive any impression. The sweetness and pliability which men admire and praise so much in women are sometimes only the consequences of weak minds and characters.—*Sel.*

The Objects of Exercise.

THE great objects should be to re-invigorate the body, and to work off the worn-out matters of the system. But if carried to excess, the surplusage is not only thrown off, but, also, other elements that are necessary for the growth of the body. Therefore, exercise should not be excessive and over-fatiguing; it should be prolonged and moderate, rather than short and laborious, and should be stopped short of actual fatigue. The amount of exercise necessary depends greatly on the amount of food consumed. Respiration, circulation, and digestion, though they are involuntary, yet their full and perfect performance is greatly dependent upon our voluntary movements. Neglect of exercise weakens and disorders the stomach, reduces the capacity of the chest, and prevents free circulation in the minute vessels. Neither body nor mind can attain its full development without exercise. It should be of such a nature as to bring all the muscles into action, and if this cannot be done by any single movement, the exercise should be varied so as to accomplish this end.—*Sel.*

The Sphere of Woman's Influence.

COULD every great and good man arise from the dead, to make known from whence the power came which called his noblest qualities into action, each would point to a sister, wife, or mother. What can ambition in a woman's heart ask more? What if she is forbidden to stand in the forum, to mount the rostrum, to enact the part of Cicero, a Washington, a Wesley? Has she therefore nothing great in her destiny? Is it nothing to sit beside young, unformed intellect, and by the skillful strokes of her chisel give it such shape and beauty as shall command the admiration of a world? Is that gift to be despised which enables a woman, with almost unerring certainty, to determine the character of her brother, husband, or son? Nay! She who trains a soul to right and noble deeds "stands higher in the scale of benefactors than he who unshackles a continent from thraldom; for she adds more to the sum of human happiness, if we estimate the effects by their duration."—*Wise.*

ALAS! if the principles of contentment are not within us, the hight of station and worldly grandeur will as soon add a cubit to a man's stature as to his happiness.

SCIENTIFIC.

Changes of Food in Boiling.

Few have the faintest idea of the many and curious changes which take place in our food during the ordinary process of cooking; but science pushes her investigations in all directions, prying into the secrets of the culinary art, as well as compelling the earth and ocean, and even the blue ether stretching away into the realms of infinity, to yield up many of their hidden mysteries. We will briefly notice what occurs in the internal structure of the common potato when subjected to the process of boiling.

Upon microscopical examination of a section of a potato, it is found to consist of little cells filled with an albuminous liquid in which are seen floating ten or twelve little globular bodies called starch grains or granules. These starch grains are usually quite regular in shape, and are always of the same size and quality when obtained from the same plant. They are made up of concentric layers of substance arranged about a central portion. They are quite hard, compact bodies, and are readily broken into irregular masses when subjected to any considerable amount of pressure. This kind of material constitutes almost the entire solid portion of the potato, three-fourths of which is water.

When subjected to the heat of boiling water, the starch grains are also broken open, but in a different manner than when broken by pressure. Upon the application of heat, the several layers composing the granule are caused to expand until they finally burst, becoming twenty or thirty times as large as before. Being very light and feathery, they absorb all of the albuminous liquid contained in the cell, so that the potato, when fully ripe and properly cooked, becomes dry, or mealy. When the liquid contained in the cell is not so absorbed, the potato is said to be watery or waxy.

It is necessary for good digestion that the starch granules should be thus broken, or expanded. Thus the impropriety of eating raw such articles as potatoes, yams, etc., is evident. It is for precisely the same reason that green apples or unripe fruit of any kind are so injurious, if eaten. In them the starch granules are still intact, and cannot be acted upon by the digestive fluids. By cooking, the difficulty is removed. If the fruit is allowed to mature, the hard starch granules are converted into sugar by the vital forces of the plant.

Starch may also be converted into sugar by prolonged boiling or by freezing, it being by the latter process that the starch stored away in the roots of maple trees is converted into sugar, thus imparting to the sap of those trees its sweetness, as it ascends in the spring.

Boiling also destroys, to some extent, the tenacity of the tissues of the food, thus rendering it more soluble by the digestive fluids. The effects of roasting or baking are quite similar to those of boiling.

The distance to the sun is 91,430,220 miles.

Electric Light.

In splendor and dazzling brightness, the sun himself is rivalled by the wonderful electric light, which is produced by attaching to the ends of the conducting wire of a powerful electrical machine small charcoal or diamonds points, and bringing them near each other. The space between them will be spanned by an arch of such brilliancy as to be absolutely unendurable to the naked eye. Such a light was produced in England a few years ago, which was said to cause the flame of a street lamp half a mile away to cast a shadow upon a screen. This kind of light has recently been utilized for light-house purposes on the English coast, and is said to be so brilliant that mariners have difficulty to avoid running upon rocks between the light-house and the shore on account of its dazzling effects.

Vegetable Parchment.

Among the many curious results of chemical action perhaps there are very few which surprise us more than the article called vegetable parchment. Ordinary, or animal, parchment is a tough, membranous, translucent substance, prepared from the skin of animals, and used like paper for writing and printing purposes, especially for valuable public documents and legal papers the long preservation of which is necessary or desirable. Surprising as it seems, a sheet of common, unsized printing paper may, by a very simple process, be made to resemble so exactly a piece of animal parchment or vellum as to be hardly distinguishable from it. A piece of thin, unsized paper is immersed for a few moments in a mixture of sulphuric acid and water. It is then removed and carefully washed, and, upon drying, it is found that from being a brittle, porous material, it has become a tough, tenacious, impervious, translucent substance, in all respects equal to animal parchment, and superior in many, not being decomposed by moisture, and having a much smoother surface. Being manufactured from a vegetable substance, it is called vegetable parchment.

Scientific Progress.—What would the great father of British chemistry have said, had he stood in the lecture room of the Royal Institution, where his great discoveries were made, and seen the burning hydrogen extracted by our great countryman, Graham, from a meteorite, the heat and light of the world ; or could he look with Lockyer on the burning flames of hydrogen, which dart up from the sun to the hight of 50,000, miles, or could he read the flashing telegrams which so rapidly run round the world that our notions of time are completely upset, and we actually receive intelligence to-day which was sent to-morrow.—*Sel.*

Poisoning by Plants and Insects.—A standing antidote for poisoning by oak, ivy, nettles, etc., is to take a handful of quicklime, dissolve in water, let it stand half an hour, then paint the poisoned parts with it. Three or four applications will never fail to cure the most aggravated cases. Poison from bees, hornets, spider bites, etc., is instantly arrested by the application of equal parts of common salt and bicarbonate of soda.—*Sel.*

Items for the Month.

☞ A Blue Cross by this paragraph signifies that your subscription has expired, and that this is the last number that will be sent until the subscription is renewed. Please renew immediately.

Favorable Opportunity.

To those of our readers who are suffering from any of the thousand maladies to which suffering humanity is heir, or who have friends similarly afflicted, we would say, Do not fail to improve the present golden opportunity of spending a few months at our pleasant resort for invalids and health seekers, the Health Institute. A full advertisement of the Institution is given upon the last page of the cover.

We say, Do not fail to improve the *present* opportunity to come yourselves, if necessary, or if not, to send your suffering friends, because the present is indeed a favorable time, and should not be neglected as you value life and happiness. Now is the most favorable season of the year for the treatment of many diseases; and, beside, we are having an extraordinarily favorable season. The hot, sultry days have been very few indeed, and the nights are so cool that the most nervous invalid is not prevented from enjoying refreshing sleep.

As a natural consequence of the cool and pleasant weather, our proverbially healthy city has been remarkably free from the usual disorders of the season, so that we flatter ourselves that hardly a more healthy location can be found anywhere than we possess. And then the healthful surroundings of the Institution, together with the rigid sanitary measures adopted, make such a thing as an epidemic an impossibility here.

To-day, as we go to press, a party of forty or more of the patients are enjoying an excursion to a beautiful lake situated about two miles from the Institute, a favorite and most delightful resort for such purposes; and, as the hacks pass by our window, conveying back and forth our invalid friends, we are gratified to see evident tokens of rapidly returning health, and consequent happiness, in their cheerful and pleasant countenances.

Upon consulting the office register this morning we found that the recent arrivals of patients included persons from nineteen different States; Michigan, Illinois, Wisconsin, Indiana, Ohio, Iowa, and New York, each furnishing from three to a half dozen or more, while Maine, California, Minnesota, Missouri, Tennessee, Maryland, and New Jersey, together with others of the Eastern, Middle, and Western States, were also represented.

One famous bugbear which has been raised against Michigan, is the "fever and ague." Many have been prevented from coming here on account of the exaggerated accounts they have received of the prevalence of this disagreeable malady. It is true that when Michigan was new, these accounts were in a measure true; but as the country has been cleared up and settled, the disease has been steadily disappearing, until, in old-settled and healthy localities like ours, it has really become as rare as in many of our more eastern States, and none need have any fear from it where the proper precautions are observed. In fact, although there have been several cases of ague here this summer, they have been imported from Kansas, Ohio, Indiana, and others of the newer Western States. Again we say, suffering friends, improve the present opportunity and come and be healed of your many infirmities.

Our Exchanges.

We are glad to find among our exchanges several meritorious journals which seem, by the character of their contents, to be making efforts to accomplish very much the same object which we have in view; viz., to teach the people that the only way in which they can expect to enjoy the blessings of health and happiness is by the abandonment of every evil habit, and strict attention to the laws of nature.

One of the best journals we receive, is the *Sanitarian*. Its contents are strictly in harmony with its name, and this month comprise many very excellent articles upon "Cholera," "School Poisoning in New York," "Morbid Effects of Alcohol," etc. It is published by A. S. Barnes & Co., New York. Subscription price, $3.00.

The *Dietetic Reformer* also comes to us from London, England, containing some excellent things. It seems to be the organ of the "Vegetarian Society," of England, of which Prof. F. W. Newman is president.

The *Oakville Enterprise*, of Oakville, Pa., is a very "enterprising" journal, and certainly ranks very high as a local paper. Its editors are men of candor, and do not attempt to sustain any party or sect, but open their paper for free discussion of all topics. In calling attention to the Reformer, they pronounce the number received very excellent, and worthy of perusal in every household.

The *Batavia News* says, "The Health Reformer contains many interesting articles on health and other items of importance to the human family."

Says the *Dollar Monthly*, "If every reader of this journal will send $1.00 to Battle Creek, Mich., for the Health Reformer, he will find it an able exponent of true health reform, advocating principles which, if put in practice, will save hundreds of dollars annually."

☞ Correspondents will please remember that questions to be answered through the Reformer must reach us as early as the 17th of the preceding month.