

The Health Reformer.

NATURE'S LAWS, GOD'S LAWS; OBEY AND LIVE.

VOL. 9.

BATTLE CREEK, MICH., JULY, 1874.

NO. 7.

The Health Reformer.

J. H. KELLOGG, M. D., : : : : EDITOR.

Our Health Institute.

THE Health Reform Institute, located at Battle Creek, Mich., is not the property of one man; neither is it owned and conducted by a firm who have invested capital for a business profit. But this is a legally incorporated institution, with a board of directors who have no pecuniary interest in it whatever, and even receive no pay for their services. The capital stock of this institution is held in shares of \$25, each share entitling the holder to one vote in the annual election of officers. The certificates of stock give all dividends and interests to the charitable uses and purposes of the institution, making the stock of no real money value to the holder, but virtually a donation. The managers of this institution, having the use of the capital invested without interest, have been able to do considerable in the line of treating patients, whose circumstances made it absolutely necessary, at reduced prices, and in a very few cases, free. And we need not say that in an institution whose object is mercy, benevolence, and love, for the sake of humanity, in the name of Christ our Lord, that physicians and helpers cheerfully serve for moderate pay.

But an institution whose increasing patronage demands a corresponding increase of rooms for patients, and the most approved facilities for their treatment, however charitable and liberal may be its objects, and however prudent and wise may be its management, cannot hold out inducements of reductions to those who are able to pay reasonable bills. Such a course would at once stop the growth of the capacity of the institution, and threaten a speedy end of its very existence. The directors are servants of the public good, and, as such, labor in all their plans to accomplish the greatest amount of good. We make these statements that the

patrons, who should have not only a general interest with the managers of our Health Institute for its prosperity, but a personal and particular one, may understand the facts in the case.

It has been the object of the founders of the Health Reform Institute at Battle Creek to establish it, and to manage it, upon such principles as to secure the fullest confidence and the most liberal patronage of the public. But up to this date, the directors have not dared to advertise only in this journal for fear of calling more patients than could be accommodated. And, at the same time, the REFORMER has been giving free advertisements of smaller health institutions all the way from old Vermont to the Rocky Mountains, thus dividing the patronage of paying patients, leaving to the Battle Creek Institute all the charity ones. In their work of mercy and love, the directors of our institution ask a fair chance, and the hearty and cheerful co-operation of all its patrons and friends. And we are certain that men and women of property, and of liberal souls, after considering the foregoing facts, will reach out a liberal hand to help build up the Battle Creek Health Institute, rather than to spend vitality in fretting over prices, and in laboring to get them down to destructive figures.

We are happy to report that the same physicians, superintendent, matron, and most of the helpers, who have cheerfully performed their labors of kindness and love to the afflicted for the past two or three years, are still at their posts of duty at the Battle Creek Health Institute, with the addition of our untiring bathman and floral friend, Arthur Perry.

Patients are arriving almost daily, and a general feeling of hope and good cheer pervades this inviting home of the feeble. With present accommodations, and improved facilities for treating the sick, no institution of the kind in our country holds out greater inducements to the afflicted than ours. It is not the policy of our physicians to keep the patients long on expense; but rather to cure them as soon as pos-

sible, and send them home well, to advertise for them, and send their feeble friends to receive the benefits in which they rejoice.

We would notice in particular the plain and practical lectures given almost daily by the physicians of the Institute, the great object of which is to teach patients how to get well, and how to keep well after they have recovered their health.

One great object of the managers of this Institute is to secure a high-toned and healthy moral and religious influence, entirely free from the loose tendencies which characterize some popular institutions of the kind in our country. The physicians and helpers at this Institution aim to be true Christian gentlemen and ladies. And, while they would manifest to patients and visitors of other religious belief that liberality in denominational tenets which they would ask themselves, at the same time, they would encourage all who profess to be the followers of our Lord Jesus Christ, to manifest the spirit of true Christianity.

J. W.

The Health Reformer.

THE HEALTH REFORMER has now reached the middle of its ninth volume. And whatever changes have taken place with this journal in other respects, its principles are the same. It has ever been a fearless advocate of the true principles of the health reformation, but not radical, narrow, and bigoted.

It has occasionally appealed to those who revere God upon the subject of hygiene as taught by the writers of our blessed Bible, and at the same time has guarded against anything of a sectarian cast.

Our connection with the REFORMER was a matter of necessity rather than choice. We had neither the medical education nor the practice necessary to properly edit a health journal. And besides this, we have not the time to spare from other labors. In fact, the editorial duties for more than a year past have been performed mainly by J. H. Kellogg, M. D. And we need not say to the readers of the REFORMER that he is in all respects qualified for the task. We speak understandingly. We have known the doctor from his boyhood, and it gives us great pleasure to have his name appear on the first page of our beloved journal in the place of ours.

We hope, by the blessing of God, to find time each month to speak to the patrons of the

REFORMER, and probably they will hear from us from our fort, the old family Bible.

JAMES WHITE.

Oakland, Cal.

In reluctantly consenting to the change announced by the writer of the preceding article, after continued and urgent solicitation, I should prove recreant to my own feelings did I fail to express my deep regret that such a change should be made. This regret is doubtless shared by the large circle of friends of the REFORMER and the health cause, to whom the one who has so ably and efficiently conducted the journal for a number of years has made himself the object of their greatest confidence, esteem, and respect: confidence, for his staunch adherence to true principles, in both their theoretical and practical bearings; esteem, for his generous charity and liberality, both in matters of conscience and in those of a more material nature; respect, for the fearless, yet courteous, manner in which he has advocated that which reason and inspiration agree in stamping with the insignia of truth.

With myself, the sincere regret deepens into sorrow that he should be so pressed with other urgent editorial duties as to feel it necessary to remove his name from the head of the journal which he has been the chief means of raising to its present state of prosperity and usefulness; especially is this the case, when we recollect the general discouragement which brooded over the prospects of the REFORMER a few years since when Eld. White consented to add its editorship to his other burdens, and undertook the task of reassuring its faltering patrons, extending its sphere of influence, and establishing upon a broader and better foundation the whole tone and character of the journal. Then its friends were losing their interest, being discouraged by the advocacy of extreme and radical positions. Its circulation was lessening, and the prospect for the future was exceedingly gloomy. Since that time, a revolution has occurred, being brought about by the judicious management of the editor, whose many years' experience in journalism eminently qualified him for the task. And now we see the same journal presenting a wholly different picture. Its friends are constantly increasing in numbers; and its influence has been rapidly extending, until it now numbers its readers by tens of thousands.

He would certainly be a lamentably presumptuous person who did not experience

many serious forebodings and much mistrust of his own abilities in attempting to assume responsibilities and duties which have hitherto been dealt with by so masterly a hand; hence it is that we look to the future with no small degree of solicitude for the success and prosperity of this journal and the truths it advocates, so far as they are affected by its influence. We are assured, however, that the influence of the former editor of the journal will not be in any measure withdrawn from the work, but that it will continue to be felt as heretofore in our monthly columns; and if, as he would convince us, he can work even more efficiently in the position he has voluntarily assumed, we shall rejoice in the rapid progress of the glorious cause of health reform which only needs efficient promulgation to secure its triumph.

We humbly beg the kind patrons of the REFORMER who have so nobly sustained it in its mission in the past, that they will still extend the same support and sympathy which they have so generously bestowed heretofore, kindly bearing with those errors into which we may be liable to fall, as the result of inexperience, and, perhaps, too youthful enthusiasm. In return, we promise our most earnest efforts, and a constant endeavor to approximate ever more closely to our ideal standard of action; viz., to practice and advocate *right and truth for the sake of truth and right*, independent of any less worthy consideration.

J. H. KELLOGG.

Evils of Tobacco-Using.—No. 1.

In broaching the subject of tobacco-using, we are happy to feel that upon this subject, at least, we find ourselves in harmony with a large majority of the most intelligent medical and scientific men of the day. Many of the doctrines held by advanced hygienists have not yet been fully recognized and adopted by the medical world at large; but there are, at present, very few really intelligent, observing medical or scientific men who do not recognize the pernicious character of the "filthy weed." But still there are many whose intellects are so enslaved to appetite that they persist in maintaining that tobacco is not only harmless, but useful; a "gentle nerve stimulant," a "conservator of tissues," "accessory food," etc.

We do not wonder that so sensual a poet as Byron should give expression to his veneration for tobacco in the rhapsody,

"Sublime tobacco, which from East to West
Cheers the tar's labor and the Turkman's rest."

But we must confess some astonishment that any man could become such an absolute slave to so vile a thing as to be led to exclaim as did Charles Lamb, apparently as the result of sober conviction,

"The world were sure forlorn,
Wanting thee."

Surely, nothing else but the degeneracy of taste, the obtuseness of sensibility, the utter misconception of what constitutes true enjoyment, and the utter subversion of all the natural instincts, which originate in the use of the filthy, poisonous weed itself could lead men to the utterance of sentiments so wholly incompatible with reason and common sense.

But, lest we should be accused of "begging the question" by drawing our conclusions from assumed premises, we will come directly to the systematic investigation of the subject, considering, successively, the *physical, mental, moral,* and *social* influence of tobacco-using, as viewed in the light of science, reason, and experience. But first, for the benefit of those who may be curious to know the origin of tobacco-using, and the manner of the introduction into common use of the vile poison, we will give a hasty sketch of its history as compiled from numerous sources.

HISTORY OF TOBACCO-USING.

The tobacco plant is a native of America. No description of the plant itself is necessary, as its culture has become so extensive in this country that few have not seen it. It was introduced into Europe after the discovery of the new world by Columbus. It was first used in Spain and Portugal, and afterward introduced into England by Sir Walter Raleigh, whose position and influence enabled him to make it somewhat popular in spite of the opposition which it received from the most cautious and sensible portion of the people. It was soon after carried into France, Germany, Russia, Italy, and Turkey, and, notwithstanding the violent opposition it received in nearly all these countries, it rapidly advanced to the proportions of an almost universal vice, and furnishes the most striking illustration of the readiness of human nature to seize upon anything which promises any gratification of the senses, no matter how filthy, how disgusting, how pernicious, or how fatal in its ultimate consequences.

In Russia, the use of tobacco was prohibited under penalty of the bastinado for the first offense, loss of the nose for the second, and deprivation of life for the third. In Italy, all who used tobacco or snuff in church were excommunicated. In Switzerland, all users of tobacco were punished by the magistrates as criminals. In Constantinople, a Turk was led through the street with his nose transfixed by a pipe-stem, as a warning to all smokers. The Shah of Persia treated tobacco-using as a capital crime. James I. also made earnest efforts to suppress the traffic in tobacco, placing heavy imposts upon it. But as has many times been illustrated in the world's history, popular sentiment and human depravity finally triumphed over purity and reason. Pope Benedict revoked the bull of excommunication issued against tobacco-users by Innocent XII., because he was himself an immoderate user of the article. The Persian tobacco devotees fled to the mountains, preferring exile with tobacco filth to home purity and quiet.

Thus did this woful vice extend its ravages, ever fastening itself more and more securely upon its victims, until it now embraces the whole civilized world. And the culture of the poisonous weed has become one of the great industries of the world, so greedy is man for gain that he does not hesitate to debauch the soil, which should be devoted to the production of the necessaries of life, to the raising of that which not only impoverishes the earth itself, but carries death and disease wherever it goes.

A brief glance at a few statistics will show how enormous is the amount of tobacco raising and using at the present time.

In 1858, tobacco cost England more than \$40,000,000.

In the year 1860, it cost France the same sum.

Last year (1873) it was estimated that tobacco cost the English people more than bread.

The United States annually exhausts in the culture of tobacco 400,000 acres of its richest soil, and employs 40,000 men, women, boys, and girls in its manufacture. In 1842, the amount of tobacco used in this country amounted to seven pounds for each adult person.

Holland has 1,000,000 sallow, cadaverous-looking people engaged in the manufacture of the various forms of tobacco.

The present annual production of the world is estimated by reliable authorities at 1,000,-

000,000 lbs., which must cost the consumers at least \$500,000,000.

TESTIMONY OF SCIENCE.

The truth on any subject which involves interference with human customs, feelings, or appetites can only be arrived at by candidly appealing to some acknowledged authority, such as the exact sciences. Here we find testimony which cannot be impeached. As evidence of the reliability of science, as an arbiter in questions which fall within its scope, we have only to call attention to some of the well-known feats of modern science which attest at once its astonishing accuracy and its thorough reliability.

Science enabled Leverrier to compute the size, and period of revolution, describe the orbit, and point out the location of an unknown and undiscovered planet so accurately that when he telegraphed to the royal astronomer at Berlin to turn his great telescope toward a certain spot in the heavens, the latter, in doing as directed, beheld for the first time the most distant member of our solar system.

Science, too, spans the interstellar spaces and measures the distance to the fixed stars. Indeed, it has recently determined that none of the stars are really fixed, but that they are in rapid motion; and it measures their speed. Yes, and even swift-winged light is made to record her velocity, as well as electricity, that fleetest of all travelers.

But science can do more than this. It can take a handful of earth, and after a careful scrutiny report to us the precise kind and quantity of each of its numerous constituents. And, still more wonderful, it points a spectroscope at the sun and tells us what are its constituents! Even the distant nebulae are forced to yield up the secrets of their constitution.

To such a source as this, we appeal for final and decisive evidence for or against tobacco as an article to be used by man. Now what does science say about it? And as we inquire, let us remember that whatever its testimony may be, we must accept it as authoritative and truthful.

The chemist submits to examination a leaf of the tobacco plant, and he finds its surface dotted with minute glands, each of which contains a peculiar oil which is found in no other plant which grows. By a little careful manipulation, he is enabled to separate this substance, and finds that it constitutes so large a

proportion as seven per cent of the whole weight of the dry leaf.

PHYSICAL EFFECTS.

But the simple fact that a peculiar oil is thus obtained, signifies nothing. The significant fact is the peculiar character of the substance. To determine the exact nature of it, and its effects upon animal life, the physiological experimenter takes the oil prepared by the chemist, and places a single small drop upon the tongue of a healthy cat, an animal which clings to life with the most remarkable persistency. Watch the poor animal. In a moment it reels; its eyes glare; its muscles jerk; every feature and movement bespeaks untold agony. It writhes in agony; and its terrible convulsions are painful to behold. Another moment, and its heart is paralyzed; its lungs cease to breathe; it stiffens in death. The investigator repeats the same experiment with a dog, a rabbit, a calf; he finds the result uniformly the same. They each yield up their lives as martyrs to the cause of science, to teach man what? Is not the answer obvious?

Again, the scientific experimenter places an open-mouthed vessel containing a small quantity of this same prepared oil beneath a large glass jar. He also places beneath the jar a vigorous rat, taking means to prevent his direct contact with the oil, and also providing him with plenty of fresh air. What is the result? In a short time the rat is dead, having exhibited the same violent symptoms as did the others, but surviving a longer time. But why did he die, not having touched the fatal drop? Ah! he *breathed* the poison. The air of the bell glass, although not confined, was freighted with that same pungent, sickening, irritating odor, which taints the atmosphere of every bar-room in the land, pollutes the air of railroad cars, converts the breath of life into a potent agent of death, and vitiates and contaminates the life-giving oxygen which Heaven created pure and untainted.

After witnessing such unmistakable evidences of the pernicious character of this subtle poison, it would seem that no rational man could imagine that it would be less potent for mischief to the human race; as though it might through partiality fail to exhibit upon man the poisonous qualities so apparent upon the lower animals! But such is not the case. Man must see his own kind suffer from the fatal poison before he will believe it to be in-

jurious; and even then he is ready to find some quibble, if possible, by means of which to avoid the legitimate conclusions to which a careful observation of its effects upon the human system must inevitably lead.

A strong man takes into his mouth a minute quantity of the same substance, the effects of which we have already seen upon lower animals; almost instant death is the result, as was clearly shown by a homicide in England, not long since, in which instance the murderer accomplished his design by forcing into the mouth of his victim a little of the oil of tobacco which he had himself prepared for the purpose. Many instances might be cited in which death has occurred by applying the oily substance which accumulates upon the stem of a smoker's pipe to some wound or abraded surface.

This poisonous oil is called nicotine; and it is to its presence that the poisonous character of tobacco is due. Nor is it necessary that this oil should be separated from the remainder of the leaf in order that it may manifest its poisonous properties. A simple decoction of the leaves has been known to produce violent death by being applied to the surface of the skin. So, also, the dried leaves have terminated life in a like summary manner upon being taken into the stomach in the form of ordinary chewing tobacco. Numerous instances of this kind can be found in the records of city hospitals and State asylums.

Indeed, we have little fear of contradiction when we say that not one person in fifty ever acquires the habit of chewing or smoking tobacco without experiencing to his thorough satisfaction, if not instruction, the poisonous and sickening qualities of the drug. How many a lad of fifteen has passed several hours of mortal agony in some secluded spot as the result of the first cigar or chew of tobacco!

But these are only the immediate effects of tobacco-using, and some lover of the weed may very earnestly contend that it is the excessive use alone which is harmful, and that no such violent effects ever follow its moderate use. Very true, so far as the last statement is concerned; but this is no evidence of the truthfulness of the first. That must be tried on its own merits. It must be remembered, also, that it is not always the most active agents which are the most destructive; but it is quite as often those which operate by undermining the constitution and sapping the vital energies.

As evidence that small quantities of tobacco

must be harmful, we shall not here adduce the argument so frequently resorted to—that if large quantities are injurious, small ones must also be, though in less degree, as this argument is evidently defective. We rather contend that small quantities are injurious for the same reason that larger ones are poisonous. Why, or how, tobacco is poisonous shall be the next subject of inquiry.

WHY TOBACCO IS POISONOUS.

We have already considered the fact that there is found in tobacco a poisonous oil chiefly composed of a substance called nicotine, which is found in no other plant, and which ranks among the most virulent poisons in its efficiency for destroying animal life. Prussic acid and strychnine are not more destructive than is this drug. To its presence is due the deadly effects of the dry leaves of the plant. But why poisonous? and how is its action (!) upon the system manifested? This we will now consider.

All substances susceptible of being introduced into the body may be divided into two classes as regards their relation to the human system. One class consists of those which furnish material with which to repair and renovate the worn-out and impaired tissues of the body, while the other consists of substances which cannot be thus used, and which can in no way assist in the process of nutrition. The first of these classes is known as food; the second must universally be acknowledged to be poisonous, although it is freely admitted that some of the latter class are so inert that they might almost be termed neutral substances. Such, however, is not the case with tobacco. It not only supplies to the body no element essential to its maintenance, but it is so antagonistic to the vital powers that it even prevents the proper appropriation and use of otherwise nutritious substances. When an aliment is taken into the stomach, in proper quantity, and at a proper time, it is welcomed by the digestive organs, and is afterward assimilated by the proper organs. If a small quantity of tobacco be taken, even at the most seasonable moment, if such there be, entirely different results are noted. The stomach revolts against it; and if the provocation is sufficiently great, it manifests its thorough disgust by expelling the filthy drug forthwith. If, however, the dose is quite minute, vomiting may not occur; but the throat will become dry and parched, the thoughts confused; and every evidence of poisoning will

be apparent. Still more minute quantities will occasion a moderate degree of exhilaration, which, to a person who is not particular about "keeping his wits about him" may even be pleasant for a time. The effects of a fatal dose have already been described.

Now all these different manifestations are evidences of what? They are the most unmistakable evidences that tobacco is a thing which is incompatible with the maintenance of the health of the body; and the special effect which a particular dose has is due to the manner in which the system expels the poison. A large dose taken into the stomach is hurled back again in the most prompt and vigorous manner. A smaller one is absorbed and then eliminated, principally by the liver and kidneys. A still smaller dose may call into action, more particularly, the perspiratory glands of the skin; while a more minute quantity will be expelled by an increased, but nearly equal, action of all the depurating organs of the body.

In this way it is that the various so-called medicinal actions of tobacco are produced. When the internal organs are the chief seat of defensive action, the blood will be drawn from the brain, and *narcosis* or stupefaction will be the result. When the skin is the most active, there is an increase of circulation toward the surface, and *stimulation* is produced. When a very minute dose excites all the depurating organs about equally, the *nerve* effect is obtained. All of these effects are those which are produced by poisons, and they are nothing more nor less than diseased, abnormal actions, as all intelligent physiologists are ready to admit.

It must be evident, then, that as the quantity of the poison cannot affect its quality, cannot convert an innutritious substance into food, or render innocuous a fatal poison, a small dose or a moderate quantity of tobacco must be poisonous as well as a larger amount, though certainly in less degree.

THE TEMPERANCE MOVEMENT.—We are heartily glad that something has been accomplished by the recent wonderful temperance movement. Here is what the *Christian at Work* says:—

"Eight hundred rum-sellers have given up their business. Twenty-five hundred grog-shops have been closed. Two hundred and forty Western townships are entirely free from rum-selling establishments. Fifteen million of dollars less of revenue from rum-sellers have been paid in at Washington than in the same length of time last year."

GENERAL ARTICLES.

THREE PAIRS AND ONE.

EARS thou hast two and mouth but one:
The intent dost seek?
Thou art to listen much, it means,
And little speak.

Eyes thou hast two and mouth but one:
Is the mystery deep?
Much thou shalt see, it means, or much
Thy silence keep.

Hands thou hast two and mouth but one:
"Why?" dost repeat?
The two are there to labor with,
The one to eat.—*Sel.*

Artificial Dentures a Source of Offensive Breath.

BY DR. D. C. HAWKHURST.

O, wad some power the giftie gie us
To smell our teeth as ithers smell 'em.
—*Burns.* (Altered.)

In recording these first words on a topic so neglected by writers on hygiene, I am agitated by an indescribable feeling of humor. For do I not well know that each wearer of the dental plate will regard her own as quite well kept, and free from offensive emanations? Such, at any rate, is the universal mind of those wearers of dental plates with whom I have conversed, though the very breath on which they have announced this conviction has often come to me freighted with that subtle fetor, well known to the dentist as the rubber-plate smell.

It is singular, but true, that most rubber plates carry a characteristic odor which is unpleasant and often disgusting to everybody but the wearer. Other parties may scent it keenly, and endure it as unavoidable; but, in case of the wearer, Nature kindly puts her poppies on and secures complete oblivion, where, otherwise, the perpetual disgust would be sickening.

An ugly face may see itself in a mirror, but a tainted breath can neither see nor smell its own fetor; it regards itself as not unpleasant. Do not therefore, try to test your own breath, but go to some trusty friend.

Artificial teeth need constant and unremitting attention lest they become causes of disease to the wearer, as well as sources of offense to friends. It is most rare to find a set that has been rendered perfectly odorless through thorough cleansing. An examination of many hundred sets in Michigan has shown me that they are almost invariably so poorly cared for that they not only betray their presence to one who knows the odor, but gradually modify the health.

The injurious influence of impure air is well

known, and acknowledged. But to him who breathes an atmosphere tainted and soured by the emanations from a neglected dental plate, the sweetest breezes of heaven are impure before they reach the lungs. Into contact with their delicate absorbing surface, 45,000 daily inspirations carry a cause of disease. And yet this plate is retained in the mouth day and night, and even during meals. Anything else equally disgusting, to which the senses had not become dulled by long endurance, would be spurned from the mouth and from the table.

If you wear a dental plate, you must be on your guard lest you unwittingly annoy those to whom you would make yourself most agreeable. Very likely you cleanse your teeth pretty well; you make them look bright, you know that there is nothing on them; you regard them as odorless. Rely upon it, you are no judge, yourself. Very likely your friend, your best friend, if satisfied that you will not be offended, will tell you that your breath smells like a rubber plate, or some other kind of a plate. She will tell you that there is something wrong about your breath; she does not know what; it is not sweet.

And quite likely, on the other hand, your friend will subdue her disgust with a fortitude that is almost saintly, and tell you that she does not smell "anything in your breath. Really it is very agreeable indeed." Of such stuff is human nature made.

And your dentist! Can you consult him about your breath? Most certainly you can. It is his business to deal with just such cases every day. But beware of him too. If you make but an incidental allusion to your breath, his politeness will prompt him to do you no disagreeable and questionable favor. He will not tell you the truth unless he knows that you desire the truth; and then he will not tell you until he knows that you will not be offended. If you put yourself under his treatment for a bad breath, he will most likely relieve you, provided the cause exists about your mouth or throat. And if some constitutional condition is its source, he will send you to the physician.

But it is my purpose now to speak of fetid breath only so far as it originates in the artificial dentures. And the most important fact connected with this topic is, that the wearer cannot know whether the plate gives off offensive emanations or not. We are all accustomed to rely on the testimony of our own senses; but the sense of smell can never teach us anything about our own breaths.

Having settled this, and having secured the aid of some trusty friend, you are now satisfied that your breath suffers from your artificial denture. What shall you do? I shall tell you in the next number of this journal. Of course thorough cleansing is the all-important remedy.

How to perform that cleansing I shall describe with minuteness.

In the meantime, you may use soap and tooth powder applied with a brush. And if you find, after doing your best with these agents, that a disagreeable taint still clings to your plate, rely upon it, the use of appropriate means will remove it entirely and render it perfectly odorless.

If the health is good, the human breath is naturally agreeable. In young people, particularly, it is sweet, and equals the most delicate odors of flowers. In adults, it often retains traces of its earlier fragrance, and, at any rate, need never have its purity sullied by an artificial denture.

Modern Dress.

ARE we more civilized in our dress than in our dwellings? Not a whit. Our guide and ruler here is that irresponsible tyrant we call fashion, and neither comfort nor beauty has a word to say. To be sure, men have discarded many absurdities, though they have retained more. They hold to their stiff shirt-collars, which rasp their necks; their wide expanse of linen front, which the very act of fastening rumples; their meaningless swallow tails, their hideous hats, their tight-fitting military uniform, and all the mysteries of seam and gusset and band, which are mere symbols of the art of cutting out, and not necessary to the comfort or shape. But even with the follies they retain, they can move about with ease, unhampered.

Women, on the contrary, torture themselves in the name of fashion with touching fidelity. They would as soon forego their nationality as their stays, and the thirty-nine articles are less sacred to them than their multiplicity of garments, all hanging from the waist. It is to keep these up, and to lessen their heavy weight, that they put themselves into steel cages which destroy all grace of line and all comfort of movement, save in walking. The beauty of simplicity is a thing dead and done with in their code. Heads are loaded with false hair stuck about with lace, feathers, flowers, and colored glass; ears are pierced that bits of crystallized earth, or imitations thereof, may be hung in the holes; health is destroyed, and the tender vital organs which nature has so sedulously protected by the outer casing of ribs, are compressed and crushed that the waistband may be reduced to seventeen inches; and the highest efforts of millinery genius are directed to the most elaborate method of sewing one bit of stuff on to another bit of stuff, to the confusion of anything like a leading-line or an intelligible idea.

We laugh at the Chinese "golden water lilies," the Papuan head-dress, the Hindoo nose-

ring, the African lip-distender; we laugh while we look in the glass, and complacently brush out our frills, and congratulate ourselves on looking "stylish" and "well got up." But our highest efforts culminate in partial nakedness in the middle of winter if we are women, in black broadcloth in the dog days if we are men—in absurd lengths of silk trailing after us as we walk in the one case, in a ridiculous pennon meandering at our backs in the other; they culminate in fashion, not in use or beauty of simplicity; but while we do thus dress without personal convenience or artistic meaning, we have no true civilization in the matter of our clothes. Modern millinery is neither art nor nature. It is our translation of the primitive man's delight in rags and gaudy colors, and there is no essential difference between the two. What difference there is consists simply in conventional acceptance, but the æsthetic base of each is the same.—*Cornhill Magazine.*

Aversion to Manual Labor.

THE practice of educating boys for the professions, which are already overstocked, or for the mercantile business, in which statistics show that ninety-five in a hundred fail of success, is fearfully on the increase in this country. Americans are annually becoming more and more averse to manual labor; and to get a living by one's wits, even at the cost of independence and self-respect, and a fearful wear and tear of conscience, is the ambition of a large proportion of our young men. The result is, that the mechanical professions are becoming a monopoly of foreigners, and the ownership of the finest farms, even in New England, is passing from Americans to Irishmen and Germans. Fifty years ago, a father was not ashamed to put his children to the plow or to a mechanical trade; but now they are "too feeble" for bodily labor; one has a pain in his side, another, a slight cough; another, "a very delicate constitution;" another is nervous; and so poor Bobby or Billy or Tommy is sent off to the city to measure tape, weigh coffee, or draw molasses.

It seems never to occur to their foolish parents that moderate manual labor in the pure and bracing air of the country is just what these puny, wasp-waisted lads need, and that to send them to the crowded and unhealthy city is to send them to their graves. Let them follow the plow, swing the sledge, or shove the foreplane, and their pinched chests will be expanded, their sunken cheeks plumped out, and their lungs, now "cabined, cribbed, and confined," will have room to play. Their nerves will be invigorated with their muscles; and when they shall have cast off their jackets, instead of being thin, pale, vapid coxcombs, they

shall have spread out to the size and configuration of men. A lawyer's office, a counting room, or a grocery, is about the last place to which a sickly youth should be sent. The ruin of health is as sure there as in the mines of England. Even of those men in the city who have constitutions of iron, only five per cent succeed, and they only by "living like hermits, and working like horses;" the rest, after years of toil and anxiety, become bankrupt or retire; and having meanwhile acquired a thorough disgust and unfitness for manual labor, bitterly bemoan the day when they forsook the peaceful pursuits of the country for the excitement, care, and sharp competition of city life.—*What Next?*

Who Wonders?

Who wonders that children often die young, and many of those who live to be older have feeble constitutions, when they consider the many doses of poison the poor things are obliged to take?

For a single example of the *many* filthy, poisonous nostrums that are given by nurses and loving mothers to quiet their precious little ones, we will notice Mrs. Winslow's Soothing Sirup.

It is estimated that *fifteen million ounces* of this sirup are sold in the United States each year. According to the *Druggists' Circular*, which is good authority, each ounce of this sirup contains one grain of morphia. The dose for an infant, three months old, if given according to directions, is equal to ten drops of laudanum, and this to be repeated every two hours.

Mothers, stop and think before you give your child another dose of *bottled death*, which is a fit name for all such life-destroying compounds.

Who wonders that the baby sleeps after its dose of "Soothing Sirup"? The great wonder is that it ever wakes from the stupor into which it has been thrown. W. M. HEALEY.

Drainage for Health.

The proper drainage of buildings is a matter of great importance. Cellars may be wet, stables not very dry, water may drip from the eaves, cutting holes into the earth and making puddles. The water from such puddles filters directly into the cellar, so that old houses in the country are very frequently dangerous to life on account of the water settling into the cellars. A damp cellar may sometimes be made dry by making a sink in it. Cellars are sometimes made in such wretched places that they need drain-pipes to carry off the water. In arranging any of this kind of work about a stable, it is necessary to be careful that the drainings of the stable do not filter into any

water required for domestic use. Water should on no account be allowed to drip from the eaves; it is a great nuisance, undermining foundations and rapidly destroying buildings.

Air confined anywhere, even in a clean room, becomes offensive, probably unhealthy, with a disagreeable smell of closeness, and confined with filth in a drain or sewer, it must be infinitely worse. Drains built tight, with traps, etc., so that there is no ventilation of their interior, generate very poisonous gases, which are ready on the occurrence of any small leak to escape and poison everybody who happens to go near them. The best arrangement for ventilators in houses is to have a separate flue built in the chimney-stack expressly to receive the ventilator pipes. Thus the air from the drain is discharged high in the atmosphere in a position to be mixed with smoke; and the noxious properties are destroyed, the smoke, whether of wood, or coal, containing about the best chemical disinfectants known.

In all parts of New England, hundreds of people are dying every year of typhoid fever; a large tract of the city of Boston is now building on made land, nearly as flat as the prairies about Chicago; and in a few years it will doubtless have to be re-graded and rebuilt to get rid of this pestilence. From Maine to Pennsylvania there are flat, undrained fields, and wet cellars, nearly as bad. All over the country further south, but principally in the Mississippi valley and the flat country bordering the ocean, the half-drained land is infected with intermittent fever and the other malarial pestilences to such an extent as to destroy many thousands of people every year; so that in spite of constant immigration, extensive tracts of country are about as sparsely peopled as they were when Pocahontas saved the life of John Smith.—*Sanitarian.*

WORK AND WIN.—Whatever you try to do in life, try with all your heart to do it well; whatever you devote yourself to, devote yourself to it completely. In great aims and small be thoroughly in earnest. Never believe it possible that any natural or improved ability can claim immunity from the companionship of the steady, plain, hard-working qualities, and hope to gain its end. There is no such thing as such fulfillment on this earth. Some happy talent and some fortunate opportunity may form the two happy sides of the ladder on which some men mount, but the rounds of that ladder must be made of material to stand wear and tear; and there is no substitute for thorough-going, ardent, sincere earnestness. Never put the hand to anything on which you cannot throw your whole self; never affect depreciation of your work, whatever it is. These you will find golden rules.—*Sel.*

PYTHAGORAS ON FLESH-EATING.

He first the taste of flesh from tables drove,
 And argued well, if arguments could move:
 O mortals, from your fellows' blood abstain,
 Nor taint your bodies with a food profane.
 While corn and pulse by nature are bestowed,
 And planted orchards bend their willing load;
 While labored gardens wholesome herbs produce,
 And teeming vines afford their generous juice;
 Nor tardier fruits of cruder kind are lost,
 But tamed with fire, or mellowed by the frost;
 * * * * *

While earth not only can your needs supply,
 But, lavish of her store, provides for luxury;
 A guiltless feast administers with ease,
 And without blood is prodigal to please.
 Wild beasts their maws with their slain brethren fill;
 And yet not all, for some refuse to kill;
 Sheep, goats, and oxen, and the nobler steed,
 On browse, and corn, and flowery meadows feed.
 Bears, tigers, wolves, the lion's angry brood,
 Whom Heaven indued with principles of blood,
 He wisely sundered from the rest, to yell
 In forest, and in lonely caves to dwell;
 Where stronger beasts oppress the weak by night,
 And all in prey and purple feasts delight.
 O impious use! to nature's laws opposed,
 Where bowels are in other bowels closed:
 Where fattened by their fellows' fat they thrive;
 Maintained by murder and by death, they live.
 'Tis then for naught that mother earth provides
 The stores of all she shows, and all she hides,
 If men with fleshy morsels must be fed,
 And chaw with bloody teeth the breathing bread;
 What else is this but to devour our guests,
 And barb'rously renew Cyclopean feasts?
 We, by destroying life, our life sustain,
 And gorge the ungodly maw with meats obscene.
 Not so the golden age, who fed on fruit,
 Nor durst with bloody meals their mouths pollute.
 Then birds in airy space might safely move,
 And timorous hares on heaths securely rove:
 Nor needed fish the guileful hooks to fear,
 For all was peaceful; and that peace sincere.
 Whoever was the wretch (and cursed be he)
 That envied first our food's simplicity,
 The essay of bloody feasts on brutes began,
 And after forged the sword to murder man—
 Had he the sharpened steel alone employed
 On beasts of prey that other beasts destroyed,
 Or man invaded with their fangs and paws,
 This had been justified by nature's laws
 And self-defense: but who did feasts begin
 Of flesh, he stretched necessity to sin.
 To kill man-killers, man has lawful power,
 But not the extended license to devour.
 All habits gather by unseen degrees;
 As brooks make rivers, rivers run to seas.
 The sow, with her broad snout, for rooting up
 The intrusted seed, was judged to spoil the crop,
 And intercept the sweating farmer's hope:
 The covetous churl, of unforgiving kind,
 The offender to the bloody priest resigned;
 Her hunger was no plea; for that she died.
 The goat came next in order to be tried:
 The goat had cropp'd the tendrils of the vine:
 In vengeance laity and clergy join,
 Where one had lost his profit, one his wine.
 Here was at least some shadow of offense;
 The sheep was sacrificed on no pretense,
 But meek and unresisting innocence.
 A patient, useful creature, born to bear
 The warm and woolly fleece that clothed her murderer;
 And daily to give down the milk she bred,

A tribute for the grass on which she fed.
 Living, both food and raiment she supplies,
 And is of least advantage when she dies.
 How did the toiling ox his death deserve,
 A downright simple drudge, and born to serve?
 O tyrant! with what justice canst thou hope
 The promise of the year, a generous crop;
 When thou destroy'st thy laboring steer, who tilled
 And ploughed with pains thy else ungrateful field?
 From his yet reeking neck to draw the yoke,
 That neck with which the surly clods he broke;
 And to the hatchet yield thy husbandman,
 Who finished autumn, and the spring began.
 Nor this alone! but Heaven itself to bribe,
 We to the gods our impious acts ascribe:
 First recompense with death their creatures' toil;
 Then call the best above to share the spoil:
 The fairest victim must the powers appease,
 (So fatal 'tis sometimes, too much to please!)
 A purple fillet his broad-brows adorns,
 With flowery garlands crowned, and gilded horns:
 He hears the murderous prayer the priest prefers,
 But understands not 'tis his doom he hears:
 Beholds the meal betwixt his temples cast
 (The fruit and product of his labors past);
 And in the water views perhaps the knife,
 Uplifted to deprive him of his life;
 Then broken up alive, his entrails sees
 Torn out, for priests to inspect the gods' decrees.
 From whence, O mortal man, this gush of blood
 Have you derived, and interdicted food?
 Be taught by me this dire delight to shun,
 Warned by my precepts, by my practice won:
 And when you eat the well-deserving beast,
 Think on the laborer of your field you feast!
 * * * * *

All customs by degrees to habits rise;
 All habits soon become exalted vice.
 What more advance can mortals make in sin,
 So near perfection who with blood begin?
 Deaf to the calf that lies beneath the knife,
 Looks up, and from her butcher begs her life;
 Deaf to the harmless kid, that, ere he dies,
 All methods to procure thy mercy tries,
 And imitates in vain thy children's cries?
 Where will he stop who feeds with household bread,
 Then eats the poultry which before he fed?
 Let plough thy steers, that when they lose their
 breath,
 To nature, not to thee, they may impute their death.
 Let goats for food their loaded udders lend,
 And sheep from winter cold thy sides defend:
 But neither springs, nets, nor snares employ,
 And be no more ingenious to destroy.
 Free as in air let birds on earth remain,
 Nor let insidious glue their wings constrain;
 Nor opening hounds the trembling stag affright,
 Nor purple feathers intercept his flight;
 Nor hooks concealed in baits for fish prepare,
 Nor lines to heave them twinkling up in air.
 Take not away the life you cannot give;
 For all things have an equal right to live:
 Kill noxious creatures, where 'tis sin to save;
 'Tis only just prerogative we have:
 But nourish life with vegetable food,
 And shun the sacrilegious taste of blood.

—Ovid.

A PHYSICIAN being asked by a patient if he thought a little spirits now and then would hurt him much, he replied: "I do not know that a little occasionally would hurt you much; but if you do not take any, it won't hurt you at all."

What Ladies Should Wear.

In a lecture on the subject of "Dress Reform," in Boston, on Wednesday night, Dr. Mary S. Blake is reported to have related some of the leading points desired in dress reform. Let the garments be ample in quantity and quality of material to give suitable warmth. Let its distribution be as equable as possible. To facilitate speed in dressing and to obviate the necessity for multitudinous bands about the waist, unite in one garment, vest, waist, and drawers. Let no weight whatever rest upon the hips, and if the shoulders rebel against the burdens laid upon them, lighten them. Let the stockings be of woolen, if not uncomfortable, and let them be suspended by elastic bands from the drawers. If woolen stockings are uncomfortable, use fleece-lined; the heavier the better. Leggins are not to be dispensed with in this climate in the winter season. Let the soles of the boots be broader than the feet. The higher the tops of the boots, the warmer the ankles, provided they are so loose that the circulation is free. Do away with the mass of dead material—false hair—on the back of the head. On the authority of Von Grafe, the most eminent oculist of modern times, it was stated that one of the most prolific causes of amaurosis was the wearing of spotted lace veils; and of near-sightedness among children, the wearing of any veils. As regards jewels, if they must be worn, to show them to the best advantage, follow the example of the Apache squaws, and hang them on the nose. Finally, if women will live true to the highest standard for which they were created, if they will measure their lives by noble deeds, let them make for the soul imperishable garments, and give as little thought as may be to the clothing of the body.

The Physiological Effects of Alcohol.

ALCOHOL, being *indigestible*, can serve no purpose in a healthy system but that of exciting unhealthy action. It checks and clogs the lungs, kidneys, and skin, in their eliminating functions, which leaves the blood burdened with impurities.

The blood being thus loaded with effete matter, and the regular and imperceptible operations of emunction obstructed, it follows that the office of elimination is very irregularly and imperfectly performed. At one time it is retarded; this causes depression and lethargy.

Again nature rallies, and her expulsive powers are excessive and often vicarious. Hence the foul and fetid character of the delayed excretions of the wine-bibber. The bile is unhealthy, and the gastric fluids are vitiated. Digestion is disordered, the appetite is capricious, at one time weak, at another voracious. The

alvine evacuations become more than usually offensive, and the renal and cutaneous transpirations assume an unnatural color and disagreeable odor. The mucous discharges of the glands of the mouth become thick and viscid, the tongue covered with a white or brown fur. This, collecting between the teeth, whether decayed or sound, is too tenacious to be removed with a brush, and, remaining there, becomes putrid, which renders the breath, already charged with alcoholic vapor, indescribably horrible. No man can have a clean skin, a pure breath, or a bright eye that uses alcohol in any form or in any quantity. In plain English, he stinks, and not all the spices of Arabia would make him fragrant. Of course an old sot is the most offensive. Dean Swift informs us, in his facetious style, that

"If a weasel you torment,
You know his passion by his scent."

It is the same with the tippler, moderate or immoderate. When excited from any cause, he becomes more steamy and emits a worse fume than burnt feathers. Soap and water will not cleanse him, for he is dirty inside and out. His whole carcass is saturated with excrementitious matter, and he reeks with unmentionable filth. He may dress exquisitely, but that will not make him less odious. Neither musk, nor garlic, nor assafetida, nor all combined, can improve him much. Teetotalism is the only disinfectant. If his noxious exhalations were natural and incurable, he would excite our compassion and kind endurance; but it is his own fault that he smells bad. What is worse, he is unconscious of the aversion which his vulgar habit occasions. His nose is too familiar with it for that. It is said that a person may carry a lump of carrion in his hat until he becomes oblivious of its presence. A gentleman or lady of keen olfactories can detect these guzzlers in a crowd as easily as a terrier can smell a rat, and a practiced nose can distinguish between a wine, beer, or whisky drinker. How very often do ladies have to bear this loathsome stench in silence! They, poor creatures, may smother their disgust; to cease to feel it is simply impossible. Is such a villainous smell as that a good thing? And does it indicate a good condition in him that emits it?

Alcohol does that which is worse than to cause putridity; it ruptures the blood corpuscles, thereby disorganizing the vital fluid, and it hardens the delicate fibres of the brain itself, which accounts for so many phases of insanity. No man is the same after drinking one small glass. He will say and do things that he would not say or do if he was perfectly sober. It antagonizes conscience, and obscures the moral sense. It makes wise men foolish, and common men imbecile. It makes good men bad, and bad men worse. An article that does that can-

not be safe in any quantity, however small. It soils and bemires the most moderate user of it with sensuality and sin. It weakens the motive to do right, and awakens and stimulates the desire to do wrong. However moderately used, it is a foe to virtue and the friend of vice. I admit that all good things should be used with moderation, but alcoholic beverages being unqualifiedly bad, it follows that *any use of them is an abuse*, a vice, and a crime. In view of the great amount of evil they occasion, the crime is of a deep and damning character. I care not whether the "hell broth" comes from the wine-press, the yeast-tub, or the metallic snakes of the still. It is the same debaucher, whether light or heavy."—DR. STEBBINS, in *National Temperance Advocate*.

Advice to Granges, or Farmers' Clubs.

BY W. T. CURRIE, A. M., M. D.

I CLIP the following from the *N. Y. Evening Post*:—

"The Rockford (Ala.) grange has adopted this resolution: 'That we will retrench our expenditures for dress and living, and confine them to articles actually necessary for decency, comfort, and good health, and will deny ourselves, as far as possible, the purchase of such things, both as to dress and living, as are superfluous.' This resolution, rigidly enforced throughout the South, would be worth millions to the agriculturists of that section."

This resolution is the text on which I wish to offer a few remarks to every member of a grange, North or South, into whose hands this paper may come.

I will say, in the first place, that the members of the Rockford grange have had the foresight to see through the whole bearings of those questions now agitated among the farming population of our Southern and Western States. More than this, they have had the moral courage to face the issues presented manfully and honestly. I heartily indorse the comment of the editor of the *Evening Post*—that "this resolution rigidly enforced throughout the South would be worth millions to the agriculturists of that section." I will go much further than this. Let every grange throughout the country pass this resolution, and all the members bind themselves by a solemn compact to abide by it faithfully for a period of twenty years; and before that time has expired, the farmers of this country will be the best educated, most moral, wealthy, and intellectual portion of the population of these United States. But this does not tell the half. Let them carry out the spirit of this resolution, and they will be enabled in a short time to put down all the monied powers of the combined world which may oppose them, and hold in their hands the nomin-

ation to every office in this republic. And again: proceed upon any other plan whatever, my friends, and just so sure as there is a God who governs the affairs of men, you will fail in all you undertake, and your work come to naught.

Now, do you ask why I speak so decidedly? Because we have thrown upon our pathway the light of thousands of examples gleaming out from the pages of the world's history for three thousand years. These same reformations which are attempted now by the agricultural community to-day have been attempted again and again. Some have partially succeeded, others have *entirely* failed. Those have succeeded which *commenced* by reforming the people: those have failed which began by political agitation. We will refer to a single example—the agrarian law as introduced into the Roman senate by the Gracchi—Tiberius and Caius Gracchus. I quote from Weber's *Universal History* a picture of the misery which it was thought to relieve by this agrarian law.

"The new family aristocracy not only filled all the offices, and excluded men of inferior birth from posts of honor, but they also possessed the whole of the arable land, inasmuch as they again claimed an exclusive right to the common lands, and got the smaller farms into their hands by purchase, usury, chicanery, and sometimes even by violence. By these means the greatest inequality of property was produced. The class of free husbandmen, upon which the ancient strength, honesty, and military virtue of Rome was established, disappeared entirely; whilst the nobles got possession of immense estates, which they cultivated by hosts of slaves who had been made prisoners of war. Numbers of impoverished tenants, who had been driven from their homes and farms by hard-hearted landlords, wandered through the land, a picture of misery and distress."

To relieve this distress, Tiberius Gracchus brought forward his famous bill, which proposed to limit each man to the possession of five hundred acres, only, of public land, and to divide the remainder among the destitute families.

Now mark the result. Tiberius, with three hundred of his followers, was killed at an election by the very men whom he was seeking to relieve. His brother Caius then took up the same work, and again moved the bill for an agrarian law. His friend and supporter, Falonius Flaccus, with three thousand of his companions, was killed at another election, and Caius escaped the same fate only by commanding a slave to kill him before he fell into the hands of the mob.

History is luminous with such examples as this. They all prove one thing; viz., that political action cannot relieve the miseries, or

sufferings, or oppressions of any people, unless it be backed up by a reformation of the people. This is the right place to commence reforms—at home. Begin by personal reforms and family reforms, and then work up to the ballot box and the political platform. When political agitation commences, backed up by a people who have reformed themselves, then there will be a sufficient moral force to compel acquiescence in the demands made upon the government. For instance, while Jesus Christ paid the unjust tax of the Roman government, his preaching produced a moral change in the people which revolutionized this government, and gave to the people rights which all previous legislation had failed to accomplish.

So I say, commence where this Rockford grange has commenced, by personal reforms, and it will arm the farming community with moral weapons which no power will ever be able to resist.

In my next article, I will try to show *when reform is needed among the farming community.*

Sleeping Rooms.

THAT old-fashioned dread of night air is so rapidly disappearing that it will soon be referred to as one of the singular prejudices of a by-gone age. But there still lingers in the minds of many persons a suspicion that you must not sleep in a draught.

They think it is good to have fresh air, but it must not blow directly upon them. Now, I have not the slightest doubt that if every individual in the city of New York were to sleep on the house-top instead of in their stifling rooms, the rate of mortality would be reduced twenty-five per cent in three months; and if they could have blankets enough to keep warm, and merely screened from the rain at night, without obstructing the currents of air,—or, in other words, to sleep directly in *all the draughts* they could get,—the mortality would be reduced one-half in one year. Consumption, that purely foul-air disease, would rapidly disappear from among us; and instead of 384 children dying under five years old, as died in this city last week, infantile deaths would be as rare as they are in the log-cabin districts of Virginia and Kentucky, where the family consists generally of man and wife and from ten to fifteen children, and where puerperal fever is unknown.

Napoleon is said to have remarked, on that bleak wintry march from Moscow, that fewer men froze to death without tents than smothered to death with them; and any of our great generals will tell you that they would lose fewer men by having them all sleep in the open field—provided *only* they could be kept *warm*—than if they were all sheltered by the best barracks ever built.

Now, it is *warmth* alone that determines the amount of fresh air you can afford at night. The poor woman, with her thin, poor blood, who has but a tattered quilt to cover herself and her half-starved infant on a cold winter night, cannot afford to sleep with open windows. But this plea of economy does not apply to many thousands of wealthy citizens who habitually put their children—if they can succeed in keeping them alive beyond their babyhood—in close, shut-up rooms that are disgustingly foul to any one accustomed to sleep in pure, well-aired rooms.

When the body is kept warm, and pure air only inhaled, there is not one particle more danger of taking cold in sleeping directly between two open windows all the year round than there is in taking cold in riding in an open sleigh when thoroughly warmed by wrappings of furs and robes; and such a thing as taking cold under such conditions never occurs, providing always the thorough warming of the feet and back, which are often neglected.

It is generally much more difficult to avoid taking cold in the daytime than when in bed. For instance, if you eat a hurried breakfast and walk a square or two with sufficient energy to start the perspiration, and then with damp feet and a moist skin enter a crowded, foul omnibus or car, and sit with your back toward a cold window until you become chilled, a cold is the usual result, even to the most robust constitution. Liability to take cold also exists in almost every store or office, and in our ordinary railroad traveling in the winter season, on account of the cold floors, causing cold feet, and exposure to sudden changes of temperature operating on small portions of the body.

Every active business man is liable, therefore, to go home at night with an incipient cold. And it depends upon his sleeping room, which is under his own control, whether he is cured of that cold before morning, or whether it is aggravated and added to, and so on until he becomes one of that great and popular crowd of foul-air victims—*consumptives*, who form such excellent customers for quack-medicine men. Now, I often take cold and go home at night hoarse with an inflamed and sore throat, and I merely state my own practice for many years past to illustrate what I think is the true principle to act upon. If stopping at a hotel, I ask to be put up several stories high, as the air is generally purer. I also prefer a south-eastern exposure, as the beds and everything smell sweeter on that side of the house, having been purified by the greater amount of sunshine. I always insist upon having an outside room, and never, under any conditions, accept of that class of rooms, unfortunately so common in our American hotels, which open only on *closed walls*; preferring a sofa or cot in the parlor, or, better still, another

house. Having thus secured a good room, and by getting two or three extra blankets (if it is very cold), with the addition of my woollen traveling shawl, abundant warmth can be secured.

If there are two windows in the room, I draw the bed between them, raise one clear up and lower the other entirely down. If but one window, divide it, half open at top and half open at bottom, drawing the head of the bed directly under the window.

The lungs are soon filled with the fresh, cold, invigorating air, and with the rapid flow of blood induced by the extra excitement of that cold air, quickly produces a genial warmth over the whole body, and a sound, refreshing sleep. I generally awake in the morning quite relieved of the previous day's cold, ready for the battles of another day. But if with such a preliminary cold I should be so unfortunate as to have to sleep in the house of some friend who would do me the honor to put me in the best spare room on the north side of the house, which had been carefully closed to keep the sun from spoiling the carpets (or rather the light, as there would be no sun on that side of the house), and the mattress, as soon as warmed, began to give off that disagreeable odor of all unsunned mattresses, I should get but a poor, broken night's rest, with my cold worse than the day before. And a repetition of this for a few nights would give me such a permanent cold as could scarcely be cured in two weeks, or one that might result in lung fever or consumption.

A bedroom, therefore, to be pure and wholesome, should be open all day to the purifying and disinfecting rays of the sun. The bed should never be made up in the morning, but should be kept in the sun and air all day, and each blanket should be hung up separately so as to be thoroughly purified and disinfected. And, if it can possibly be avoided, a bedroom should never be used for a sitting room.

The difference between inhaling cold air and warm air is but little understood; most persons who have noticed that cold air is more invigorating, attribute this difference to the fact that cold air being more dense, a greater amount of oxygen is inhaled in the same bulk of cold air. But this does not account for all the difference, as the blood circulates much faster when one is breathing air near zero than it does when breathing air near the temperature of the blood; but the difference in density due to that difference of temperature would be but one-fifth. There must, therefore, be some other cause for the stimulating effect of cold air. Many persons suppose that warm air, *if pure*, is just as invigorating as pure cold air, which is a great mistake.

If we wish to have good robust health, we must breathe cold air. To keep warm while surrounded by cold air is much more difficult while sitting up than while lying horizontal in

bed. Therefore, the night and in bed is the great opportunity for recuperating the exhausted strength of the body; and a cold, well-aired room, thoroughly sunned all day, is much better for this purpose than a warm close one shut up through the day to become moldy and poisonous. Some writers lay much stress on the size of bedrooms, but this is of no importance. An ordinary coffin is quite large enough for a wholesome bedroom, provided both ends are open, and a good current of air passing through from head to foot.

Very careful observation for many years past has convinced me that infants can bear to advantage much more fresh air than they usually get. I have watched with great interest experiments with infants allowed to inhale very cold air, and most persons would be astonished to see how they thrive on and enjoy breathing the pure cold air in winter when carefully wrapped up to insure warmth. Of course nothing but a very ignorant person or barbarian would smother the little innocents by putting clothes and vails over their faces.

They can bear much more fresh air at night than most of our thin foul-air poisoned and dried-up citizens of the present day. The doctors say the healthiest babies are those who are permitted to sleep out of doors most in baby wagons or otherwise. If all our citizens could sleep in open, well-aired and sunned rooms, and use blankets instead of coal, I believe Professor Faraday's assertion that the natural duration of the life of a man is 100 years, would be found much nearer the truth than is generally supposed.

Principle.

If a firm regard for right is necessary in any calling or pursuit in life, it is certainly indispensable in living out the principles of the health reform.

To restrain the demands of a perverted appetite, and to keep it in due bounds and obedience, requires all the courage and perseverance one can summon.

It is true that, when one is surrounded by health-reform influences, it is comparatively an easy task to heed the admonitions of wisdom. When the delicious products of our earth are spread out before us by the skillful hand of the true reformer, one can hardly be tempted to step beyond and over the dictates of conscience (for we suppose that health reformers are conscientious).

But it must be admitted that few are thus favored. Most are far otherwise situated. Our world is inhabited principally by those who seek to please the appetite; and, with few exceptions, in all places, at home and abroad, the cook is a scorner of hygiene.

Now, you sit at the table of mine host, or

at the board of a friend, or at the common table of the employer, where are found all varieties of food and drink, some of them quite unwholesome. You are urged to partake. Even if you are unwell, it is urged that you may soon be too sick to eat; or you are rallied upon your strictness. Almost everywhere, sometimes even at home, mother Eve presents the forbidden fruit.

Now, what will you do? Will you do as Adam did, yield to the temptation, and fall? Alas! too many do thus. Few health reformers will stand against the seductive influences of the table. The savory smell of richly prepared and highly seasoned meats, and the steam of strong tea and coffee, rich with cream and sugar, operate like the fumes of whisky and Madeira upon the lover of alcohol, or like the smell of the cigar upon the devotee of narcotine.

Now, what will save the health reformer who would be consistent? Certainly it must be principle, fortified by knowledge and wisdom, kept alive by faith in Him who ordained both natural and moral law.

Consistency is the bright jewel. Health is the great earthly treasure. Life is a precious boon. Success to those who love thee, O truth! let peace and joy attend you, all who deny self for life and usefulness. Let Heaven's best blessings rest upon all true reformers. Certainly, blessings will abundantly attend such as walk in the path of honor, and truth, and right doing.

JOS. CLARKE.

A Lesson for Smokers.

PLAIN speaking was formerly considered a duty by the Quakers. It is a pity they do not practice it oftener on smokers, taking the following as a specimen:—

Recently, a Quaker was traveling in a railway carriage. After a time, observing certain movements on the part of a fellow-passenger, he accosted him as follows:—

"Sir, thee seems well dressed, and I dare say thee considers thyself well-bred and would not demean thyself to do an ungentlemanlike action, wouldst thee?"

The person addressed promptly replied, with considerable spirit—

"Certainly not, if I knew it."

The Quaker continued:—

"And suppose thee invited me to thy house, thee would not think of offering me thy glass to drink out of after thee had drank out of it thyself, wouldst thee?"

The interrogated replied—

"Abominable! No! Such an offer would be most insulting."

The Quaker continued:—

"Still less would thee think of offering me

thy knife and fork to eat with, after putting them into thy mouth, wouldst thee?"

The interrogated answered—

"To do that would be an outrage on all decency, and would show that such a wretch was out of the pale of civilized society."

"Then," said the Quaker, "with those impressions on thee, why shouldst thee wish me to take into my mouth and nostrils the smoke from that cigar which thou art preparing to smoke after sending the smoke out of thine own mouth?"

How to Treat Babies.

A FRIEND has sent us an article on a subject suggested by us, and it strikes us as a very sensible one. We give it entire, and then we shall have one or two things of our own to add to it.

We do not believe in the institution of cross babies, or that a baby has a right to be fretful, unless it be sick. A healthy infant never cries but for one of two reasons, namely; it is either hungry or in pain. If the former, we can stop it; if the latter, we must ascertain the best mode of operating. I have had almost the entire care of three children of my own, never feeling willing to intrust the precious charge to others. Therefore, I propose to give my experience, as well as that of my mother, who, with the permission of divine providence, and the assistance of a good husband, and a large share of common sense, succeeded in raising twelve children. If an infant is hungry, it will simply cry; if in pain, it will draw up its little limbs and stretch them out spasmodically, and in many ways show evidence of pain. More than half the pain young infants suffer might be avoided if they were kept sufficiently warm. An infant can hardly be kept too warm the first few weeks of its life. We do not believe in covering them up entirely; they should have sufficient breathing place and plenty of pure air. Now for the remedy: Unpin the clothing, all but the band; unless this should be unnecessarily tight, do not disturb it, as serious results might follow when the infant is violently crying; apply warm, dry flannels to the stomach and feet. The pain, as stated, is generally owing to the lack of warmth or flatulency. To remedy the latter, give one or two teaspoonfuls of warm water, *do not sweeten it*; for in case of acidity in the stomach, it would only be adding fuel to the fire.

In protracted cases of crying, when these remedies fail, undress the child, leaving the band; wring a towel out of warm water, wrap it in this, and a warm woolen blanket over, and let it remain until it becomes quieted. I believe this is a never-failing remedy, but seldom necessary, as the dry flannel usually answers the purpose. I have seen infants a week old,

and less, fed with catnip tea, peppermint, paregoric, alcoholic stimulants of all kinds, and numerous other things too heathenish to mention.

Now let us listen to known facts: As infants' stomachs, at birth, hold, according to medical authority, about one tablespoonful, what must be the result when the little sufferers are fed nearly a cupful at a time? Why, their stomachs are distended, and the pain consequently increased tenfold. If they are fortunate enough to eject the same, the wind comes up with it, and the child is immediately relieved! the good effect being attributed entirely to the virtue of the aforesaid tea, sirup, etc. Simple warm water would be far better, as there could be no bad result from using it, as might follow from the use of other remedies. No infant needs anything more than nature supplies—its natural food, and occasionally a little cold water. We do not wish to cast a slur upon any household practice, but we must be allowed to say that we have known some cases where infants have been killed by the use of sedatives and stimulants. I hope some of my friends will try my plan first, as it costs nothing, and the remedies are always at hand. While agitating this subject of so much importance, especially to young mothers, allow me to make a few additional remarks.

Never let an infant sleep between two grown persons; if you wish it to sleep with you, by all means let it occupy the side of the bed. By placing it in the middle, it is not only in danger of suffocation, but must necessarily breathe the air from the bed. Many impurities are thrown off the system while sleeping. Consequently, *the child breathes poison air all night*. If your bed stands against the wall, you can have no fear of its falling out; if in the center of the room, *which is better*, place something to the side of the bed. Do not depend on the bed covers to keep the child warm, but have a separate blanket; otherwise the child will be uncovered half the night. Do not let it sleep on your arm, or give it nourishment through the night after it is two or three months old. It does the child no harm to fast until four or five o'clock in the morning. It does the mother positive harm to feed it during the night.

After a child is weaned, a mother is often more of a slave to its wants than before; for instance, it must be put to sleep in the arms. This is not only unnecessary, but a great tax on the strength of the mother or the nurse.

When a child is weaned, which time should never extend beyond twelve months, it is old enough to be taught. When the time comes for sleep, put it into its crib and leave it entirely alone. It will cry, as a matter of course, and not only cry, but scream. Let it cry! if it is well and strong, it will do it no harm, and when it gets tired of crying, it will fall asleep.

Try it again the next night, it will do the same, and perhaps for the third, but it seldom takes longer to teach it what is required. The greatest trouble in this is, the mother's sympathies are too strong; she has not the courage to carry out the plan. I felt like crying myself; but why give up, when you know it is far better for both parties to act with decision. Time is too precious to be spent in rocking babies to sleep; think how much you might accomplish in the one, or perhaps two, hours you spent in rocking your baby to sleep. This is not only lost time, but decidedly injurious to the child—it makes it nervous and irritable. Everything in the room tends to divert its mind, whereas, if it is in a room by itself, with a dim light, the mind is soon lost in a quiet, peaceful sleep.

We are much pleased to hear that a woman who has had so much experience does not believe in the institution of cross babies; we like the condemnation of all the nostrums, teas, and stimulants with which the morning of life is often deluged. Her mode of proceeding, in all its parts, can be recommended for good, average, healthy children. But a great part of the children born now-a-days, are deficient in brain power; begotten of tobacco smoke, late hours, tight lacing, and dyspeptic stomachs. The father has put his son's brain into his meerscham and smoked it out; the mother has dribbled it away at balls and operas; two young people come together, both of them in a state of half nervous derangement; she cannot live without strong coffee, her hand trembles, and she has a sinking at her stomach, when she first rises in the morning, till she has taken a cup of strong coffee, then she is primed for the day; he cannot study or read, or perform any real mental labor, without tobacco; both are burning life's candle at both ends; both are wakeful and nervous, with weak muscles and vibrating nerves.

Two such persons unite in giving existence to a poor, hapless baby, who is born in a state of such diseased nervous sensibility that all the forces of nature are a torture to it. "The fathers have eaten sour grapes, and the children's teeth are set on edge." What such children cry for is neither cold nor hunger, *but irrepressible nervous agony*—sometimes from fear, sometimes because everything in life is too strong for them, and jars on their poor, weakened nerves, just as it does on those of an invalid in a low, nervous fever.

Now, the directions about putting a child away alone to sleep without rocking or soothing is a good one only for robust and healthy children; for the delicate, nervous kind I have spoken of, it is cruel, and it is dangerous. We know an authentic instance of a mother who was trained to believe it her duty to put her infant to bed in a lonely chamber and leave it. Not daring to trust herself in the ordeal, she

put on her bonnet, and positively forbidding the servants to go near the child, went out for a walk. When she returned, the child was still, and had been so for some time. She went up to examine the child; it had struggled violently, thrown itself over on its face, a pillow had fallen over it, and it was dead from suffocation.

Nervous children suffer untold agonies from fear when put to bed alone. No tongue can tell the horrors of a lonely room to such children. A little, delicate boy, whom his parents were drilling to sleep alone, used to scream violently every night, and his father would come in and whip him. He mistook the pertinacity for obstinacy, and thought it his duty to conquer the child's will. One night he said, "Why do you always scream so, when you know you will be punished?" "O father! father! I don't mind your whipping me, if you'll only stay with me." The father's eyes were open from that moment; he saw that a human being cannot be governed by dead rules like a plant or an animal.

No, mother! before you make up a plan of operations for your baby, look at it, and see what it is, and use your own common sense as to what it needs. Look at yourself; look at your husband; look at your own physical habits—at his, and ask what your child is likely to be.

The caution of our friend with regard to not suffering the child to sleep between the parents, is important for many reasons. There is scarcely a man that does not use tobacco, and if a man uses tobacco, there is a constant emanation of it from his person. Now, however he may justify the use of it himself, he can hardly think that stale tobacco effluvium is a healthy agent to be carried into the lungs of a delicate child. Children of smoking fathers often have their brains and nervous systems entirely impregnated with nicotine in their helpless age of infancy.

A couple came to a country place entirely for the health of their only boy, a feeble infant. The child was pale and sickly, constipated in the bowels, threw up his milk. The parents had but one room, in which they lived with him, and which was every evening blue with tobacco smoke. Every evening, that helpless little creature took into his lungs as much tobacco as if he had smoked a cigarette. Still more than this, the mother who was nursing that infant did what was equivalent to smoking one cigar every evening—she breathed her husband's smoke. Now, if your baby smokes cigars, you will find, by-and-by, when he comes to need brains, that his brain power will not be found. He will be starty, fitful, morbid, full of nervous kinks and cranks, one of those wretched human beings who live a life like that described by Hawthorne in his story of

"Feathertop," only capable of existence and efficiency while he is smoking, but sinking into dimness and stupidity when he stops.

Such are some of the chances of poor babies! God help the poor little things! They never ask to be born, and their parents, if they will bring them into existence, owe them every attention to make that existence a blessing.—*Mrs. Stowe.*

Silver Wash.

A WORTHLESS preparation is being sold through the country as a genuine silver wash. It is certainly well calculated to deceive the unsuspecting, for, when applied to brass, or to German silver, or worn silver-plated ware, it greatly improves the appearance. If the new, bright, and improved appearance of some articles, washed with this mixture, could be retained, as the vender will again and again assure you it will for years, even when daily used, it might be an object for some to purchase it. But the fact is, for I have seen it demonstrated repeatedly, that, in a few days, it wears off; and, if articles are washed with it which are brought in connection with our food, we know not what poison we are taking into the system when using them, till the wash has entirely disappeared.

I would recommend all to let silver-wash peddlers pass on. Keep your money, and let them keep their spurious wash. One volume of the HEALTH REFORMER is worth to any man who really wants to know how to live so as to preserve his health and strength, and to honor his Creator with a sound mind, more than all there is of this counterfeit mixture in market.

Health reform, as advocated by the REFORMER, is not a mere outside wash, fair at first, but destined to prove false and deceptive. Its principles lie deep in the bosom of scientific facts, sustained by the word of God, and reason. They are like pure silver or gold, thoroughly tried; and, when practically tested with time, patience, and perseverance, they are found better than gold, "yea, than much fine gold."

A. S. HUTCHINS.

LAUGHTER AS A MEDICINE.—A short time since, two individuals were lying in one room, very sick, one with brain fever, and the other with an aggravated case of the mumps. They were so low that watchers were needed every night, and it was thought doubtful if the one sick of fever could recover. A gentleman was engaged to watch over night, his duty being to wake the nurse whenever it became necessary to administer medicine. In the course of the night, both watcher and nurse fell asleep. The man with the mumps lay watching the clock, and saw that it was time to give the fever patient his potion. He was unable to speak

aloud, or to move any portion of his body except his arms; but, seizing a pillow, he managed to strike the watcher in the face with it. Thus suddenly awakened, the watcher sprang from his seat, falling to the floor, and awakened both the nurse and the fever patient. The incident struck the sick man as very ludicrous, and they laughed heartily at it for some fifteen or twenty minutes. When the doctor came in the morning, he found his patient vastly improved; said he never knew so sudden a turn for the better, and now both are up and well. Who says laughter is not the best of medicines?

And this reminds the writer of another case. A gentleman was suffering from an ulceration in the throat, which at length became so swollen that his life was despaired of. His household came to his bedside to bid him farewell. Each individual shook hands with the dying man, and then went away weeping. Last of all came a pet ape, and shaking the man's hands, went away also with its hands over its eyes. It was so ludicrous a sight that the patient was forced to laugh, and laughed so heartily that the ulcer broke, and his life was saved.—*Sel.*

The Nerves. (Concluded.)

[We give this month a few more extracts from the lectures of Dr. Séquard, which contain many interesting and instructive facts well worth remembering.]

THE HEART NOT ESSENTIAL TO CIRCULATION.

As you well know, the blood circulates from the arteries to the veins. A great many facts indeed show us that circulation will go on without an impulse from the heart. In plants, the circulation proceeds from chemical changes without any heart at all, without any power that pushes the liquids forward. And we may say that, instead of the heart being the only organ that serves for circulation, on the contrary, the heart is formed by the circulation. The circulation helps to give it a form of organization, and helps to give it a function when it has accomplished its organization.

There is on record the case of a man who for three days had had no beating whatever of the heart and who, nevertheless, had had a circulation. He had had no pulse—the beating of the pulse depending on the heart—but the blood was circulating, and life was maintained all the time. Therefore, although I would not say certainly that the heart is a useless organ, it is certainly by far less important than it was considered to be, a great deal of the work of circulation being due to the attraction that tissues exert on the blood.

A CAT'S TAIL ON A ROOSTER.

If we put an organ taken from a living animal inside of another animal, very frequently

this organ will be engrafted there. The infused serum becomes the object of chemical changes, the blood is attracted, and the organ receives circulation. I once engrafted the tail of a cat on a cock's comb. A few days after, it was evident by pricking the tail that blood was circulating in it, and it certainly would have stayed there had not the cock had a fight and lost it. Other cases of grafting leave no doubt in this respect.

THE POWER OF IMAGINATION.

John Hunter, long ago having to deal with a mesmerizer, showed very clearly what occurs in these cases. He said that he had observed of himself that by thinking of any part of the body he could very soon produce a sensation there, and if he thought of a certain kind of sensation, that kind of sensation was produced. When the mesmerizer was trying to act on his hand, saying, "Do n't you feel this or that sensation when this instrument is put in your hands?" Hunter at that time was trying to give himself the gout in the big toe. Hunter unfortunately knew by experience what the gout was, for he was careless of his health, and had that complaint in other and worse parts than the big toe. But this time he thought he would divert it to that member, and succeeded in doing it so well that all the attempts of the mesmerizer to produce a sensation in the fingers failed.

The influence of the mind on sensations especially is exceeding great. Prof. Bennett of Edinburgh related the case of a butcher who was once trying to hang a piece of meat on a hook. He found suddenly that he had suspended himself to the hook instead of the meat. His agony, when he discovered it, was terrible, but an examination showed that the hook had only passed through his sleeve and had hardly touched his skin.

EFFECTS THAT BORDER ON THE MIRACULOUS.

Not only anæsthesia may be produced, but the secretions may be very powerfully affected by the influence of the mind over the body. Here we find facts of great importance indeed. There are many facts which show that the secretions of milk may become poisonous for a child from a mere emotion in the mother, and especially from anger. And if it were not the duty of every one to avoid anger it would certainly be the duty of a young mother who has to nurse a child. There are cases, although they are not common, in which death has resulted; and alterations of health in children from this cause are very frequent. A great many men who have reached an adult age owe their ill health to such an influence in childhood.

Every one knows, also, that the secretion of bile, the secretion of tears, and the secretion of saliva are very much under the influence of the

nervous system. The purging of the bowels, which depends on a secretion there, or a secretion in the liver, is also much dependent on the influence of the imagination. The Emperor Nicholas tried to see what power there is in the imagination in that respect. Bread-crumbs were given to a great many patients, and, as a result, most of them were purged. In one case a student, not of medicine, but of theology, having the idea that the word pill meant a purgative, looked for "pill" in the dictionary; and the first kind of pills that he found there was one composed mainly of opium and henbane, both astringents, and capable of producing great constipation. He wanted to be purged, and took a certain number of these pills, and, instead of becoming constipated, he was purged just as he wished to be.

Vomiting may be produced in the same way. Du Cros, a French physiologist, tells of a trial made in a hospital by a nurse who went around and gave to all the patients a very harmless kind of medicine, and then told them that she was sorry that she had by mistake given them all very powerful emetics. Out of 100 patients, 80 were affected as if they had taken the most violent emetic and vomited for a long time.

This we see on a very large scale on sea-board every summer. I have no doubt whatever that sea-sickness is in a great measure due to that, and if you could go on board of a steamer with the idea that you would not vomit, I am well satisfied, from experiments I have made, that you would escape a great deal of sea-sickness, if you did not escape it altogether. One fact I recall is very interesting. A person had crossed, on one occasion, a small bay when it was very rough. There was a man playing the violin on the boat. The person I refer to was terribly sea-sick and vomited a great deal. He had not, of course, made up his mind that he could not be sick. However, the point is, that after that he could never hear a violin without vomiting.

Dr. Carter says that while a mother was looking at her child who was standing at a window with the fingers on the border of the window just under the lifted sash, she saw the sash come down with great force and crush the three fingers of the poor child. The mother remained unable to move, feeling immediately a pain on the three fingers at the very place where the child had been injured. Her fingers swelled, an effusion of blood took place, ulceration followed, and she was a long time in being cured.

PERFORMANCES OF RELIGIOUS DEVOTEES.

The mind in a state of emotion has also great power on the heart, the breathing apparatus, and several other organs. The most important of the facts here—which I must say I committed the fault of denying for a long time—are those which relate to the fakirs of India. You

know that they may remain dead to all appearance for a number of days, and it is even said for months, without any change occurring in their body, without any change in their weight, without their receiving any food. They show neither circulation nor respiration, as their temperature had diminished very considerably, and all together present a series of effects which are certainly very marvelous. But marvelous as it is, the testimony of some officers in the British army, who are men of perfect veracity, leaves no doubt as to the possibility of the fact. But in the light of the fact that I mentioned in my first lecture, that I had a dead animal in my laboratory lying for several months without any sign of decomposition, in a temperature varying from 40° to 60° during day and night, we can understand that these fakirs may remain able to live although they do not live—that is, do not have actual and active life.

The cure of any illness which does not consist in any disorganization of the tissues can often be accomplished when the person thinks that it can be done. If we physicians, who treat patients every day, had the power to make them believe that they are to be cured, we certainly would obtain less fees than we do, and I must say that the best of us would rejoice at it. There is no doubt at all that if we could give to patients the idea that they are to be cured, they would often be cured, especially if we could name a time for it, which is a great element in success. I have succeeded in this way sometimes, and I may say that I succeed more now than formerly, because I have myself the faith that I can in giving faith obtain a cure. You know that it will stop pain; that going to a dentist is often quite enough to make a tooth-ache disappear. I have seen patients come to me with a terrible neuralgia, who dreaded the operation I was about to perform, and, just at the time I was to undertake it, ceased to suffer.

THE surest road to health, say what you will,
Is never to suppose we shall be ill,
Most of those evils we poor mortals know
From doctors and imagination flow.—*Churchill.*

THERE is no policy like politeness, and a good manner is the best thing in the world, either to get a good name or to supply the want of it.

How to Cure a Cold.

THE humorous editor of the *Danbury News* makes the following report of how one of his printers medicated a cold:—

"He boiled a little boneset and horehound together, and drank freely of the tea before going to bed. The next day he took five pills, put one kind of plaster on his breast, another under his arms, and still another on his back. Under advice

from an experienced old lady, he took all these off with an oyster-knife in the afternoon, and slapped on a mustard paste instead. His mother put some onion drafts on his feet, and gave him a lump of tar to swallow. Then he put some hot bricks to his feet and went to bed. Next morning another old lady came in with a bottle of goose oil, and gave him a dose of it on a quill, and an aunt arrived about the same time from Bethel with a bundle of sweet fern, which she made into a tea and gave him every half hour until noon, when he took a big dose of salts. After dinner his wife, who had seen a fine old lady of great experience in doctoring, on Franklin street, gave him two pills of her make, about the size of an English walnut and of a similar shape, and two tablespoonfuls of home-made balsam to keep them down. Then he took a half pint of hot rum, at the suggestion of an old sea captain in the next house, and steamed his legs with an alcohol bath. At this crisis two of the neighbors arrived, who saw at once that his blood was out of order, and gave him half a gallon of spearmint tea and a big dose of castor oil. Before going to bed, he took eight of a new kind of pill, wrapped about his neck a flannel soaked in hot vinegar and salt, and had feathers burnt on a shovel in his room. He is now thoroughly cured, and full of gratitude."

Trust in Doctors.

It is a good thing to have confidence in good men, good doctrines, and good causes; but when confidence is misplaced, it always works evil. Much of the confidence now placed in the innumerable host calling themselves "doctors" is used by them in ruining their patients. On this point, the following remarks of Dr. Nichols are forcible:—

"It is curious to observe how people, who have the utmost contempt for any claim to religious infallibility, obey their doctors with implicit faith. 'The doctor ordered it,' is reason enough for doing an absurdity. The doctor orders a young man to smoke, and his blood and nerves are poisoned for life. He orders a scrofulous child to be fed on bacon, or a consumptive patient to spoil an already poor digestion by drinking gallons of nauseous fish oil. The infallible doctor drenches a feeble, constipated patient with aperients and cathartics, when a proper diet would at once remove all difficulty. There is not much religious superstition now to complain of, but medical superstition is as rife as ever, and quackery more brazen and more triumphantly successful. Not satisfied with destroying health, there are doctors now engaged in undermining morality. The sole remedy is the education of the whole people in physiological knowledge—the knowledge of the science of life; but we do not see that

either Oxford or Cambridge has put this subject on the list for its examinations."

Thousands, to their sorrow, can witness to the truthfulness of these remarks. One chief good of the health reform is, that it teaches all persons to think and act for themselves, and not blindly follow the prescription of some pretending quack.

D. M. CANRIGHT.

Tobacco and Intemperance.

A WRITER in a recent popular city paper, E. R. MAXSON, M. D., LL. D., makes the following very sensible remarks which we gladly copy, as confirmatory of the position long held by the REFORMER on this important subject:—

"After years of careful observation, in this country and abroad, I am fully convinced that all the failures of temperance movements, so far as intoxicating drinks are concerned, are due to the fact that *tobacco*, the depressing influence of which underlies the inclination to use stimulants, has been left comparatively untouched. And while it is true that few reforms have been effected from this vile habit, for the reason that it so impairs the physical, intellectual, and moral ability to reform that it is scarcely to be hoped for; and, as I believe, only attainable by the influence of prayer for divine assistance, as a gentleman told me at North Adams, Mass., a few days since, as his experience. Our hope, then, lies in an effort to keep children from the use of tobacco; and when this is done, and the present generation of *tobacco worms*—sad counterfeits of the human form divine—shall have passed beyond the reach of defiling the air for decent people to breathe, and gone to their own place, I verily believe that the use of intoxicating drinks will, as a consequence, be abandoned, just as surely as any effect follows a cause. A noble effort to this end has been inaugurated in this city."

HYPPOPHAGY IN FRANCE.—According to *Le Monde*, there are now as many as forty shops or stalls, in the city of Paris alone, devoted to the sale of horse meat as an article of food; and during 1872 there were in round numbers, 10,000 horses, 900 asses, and 50 mules consumed by the inhabitants. The animals are prepared for the market in the usual way, and the meat sells for about half the price which is asked for beef. The horses are in all cases subjected to a very careful examination by official inspectors. It is also stated as an interesting fact that, so far from hyppophagy declining, it is decidedly on the increase, the figures showing that nearly two and a half million pounds of equine meat were sold in 1872, as against half that quantity in 1860.

Wine and the Bible.

It is quite a perplexing query with many of the friends of the Bible, how the statements of that book respecting the use of wine are to be understood, or how they can be reconciled with the idea of total abstinence. A friend writes from Cincinnati, O. :—

I am in sore perplexity, and I appeal to you to help me out if you can. With the women's whisky war now being waged at many points, and the subject of temperance being much discussed, the cause of my trouble I take to be a matter of general interest, and therefore request that you answer through the REFORMER. It is this: Does the teaching of the Holy Scriptures allow of the moderate drinking of wine or other intoxicating liquors? I am constantly told by sincere and pious persons that total abstinence cannot be proved as taught by the Scriptures, but that the utmost laid down in that direction is the moderate use of such drinks. With the light that I have, such passages as the following are hard to explain away. "Drink no longer water, but use a little wine for thy stomach's sake," &c. 1 Tim. 5:23. "Not given to *much* wine." Titus 2:3. The taunt of the Jews, quoted by our Lord himself, Matt. 11:19: "The Son of man came eating and *drinking*, and they say, Behold a man gluttonous, and a *wine-bibber*."

It has been said that the wine, or "fruit of the vine," of the New Testament was not intoxicating; but at the marriage in Cana, the language of the governor of the feast is, "And when men have *well drunk*, then that which is worse," clearly meaning when men are so far *intoxicated* or muddled that they cannot distinguish poor wine from that which is counted better.

It is also often said that if the wines of modern times were *pure*, there would not be so much harm in them; partly true, perhaps, but surely *you* would not advocate or defend the drinking of fermented wine, however pure.

I pray you show me how the Holy Scriptures and hygiene are to be reconciled in this respect.

A. B. BURTON.

ANSWER: That wine of an intoxicating nature was used in ancient times is well enough known; that the Bible recognizes that fact is equally clear; but does the Bible enjoin the use of such an article, or countenance it, or speak of it in a way from which it may be inferred that no wrong is involved in its use—this is the question.

The Bible speaks of a great many things as facts, which it by no means countenances as innocent. Impartial even with its best characters, it gives us a record of the ridiculous and disgraceful muddle in which both Noah and Lot became involved; but it never commends this part of their experience, nor holds it up as an example for imitation.

If, however, Paul recommended Timothy to use wine of an intoxicating nature, the said Timothy might have found himself, perhaps, in as sad a plight as either Noah or Lot on the occasions referred to, and yet have pleaded in excuse, the express injunction of his spiritual father. We do not believe that Paul designed that Timothy should use any such article, or that the latter, in carrying out the instruction, and nursing his weak stomach, did take anything into it which would blister and sear its delicate linings, and exhaust what little vitality it already possessed.

In defense of this position, we put in one fact, on the maintenance of which we rest the case. The fact is this: that in the time of Christ and the apostles there was an article in use known as wine, which was not fermented and would not intoxicate. If this statement can be substantiated, it clears this passage, at least, of all difficulty; for we have a right to say that it was wine of this nature which Paul recommended, if there is no positive evidence to the contrary, and if the tenor of Paul's other writings on the subject demands that this should be so understood. As this is simply a question of fact, it must be decided by testimony.

Chalmer's Encyclopedia, art., Wine, says: "A certain amount of juice was allowed to exude from the ripe fruit by its own pressure before the treading began. This was kept separate from the rest of the juice and formed glucos or sweet wine noticed in Acts 2:13. The first drops that reached the lower vats were called the dema or tear, and formed the first-fruits of the vintage which were to be presented to Jehovah. Ex. 22:29."

On this passage, Jacobus, in his commentary says: "This wine was not that fermented liquor which passes now under this name. All who know of the wines then used will understand rather the unfermented juice of the grape. The present wines of Jerusalem and Lebanon, *as we tasted them*, were commonly boiled and sweet, *without intoxicating qualities*, not such as we here get in liquors called wines. The boiling prevents the fermentation. Those were esteemed the best wines which were least strong."

Barnes, on Acts 2:13, says: "This word [*gleukos*, new wine] properly means the juice of the grape which distills before a pressure is applied, and is called *must*. It was *sweet* wine, and hence the word in Greek meaning *sweet* was given to it. The ancients, it is said, had the art of preserving their new wine with the peculiar flavor before fermentation for a considerable time, and were in the habit of drinking it in the morning.

"Archbishop Potter," says the California *Christian Advocate*, "who lived two hundred years ago, in his *Grecian Antiquities*, says: 'The Lacedæmonians used to boil their wines till a fifth part was consumed, then after four years were expired, began to drink them.'

"Columella, about the same period, says: 'In Greece and Italy it was common to boil their wines.'

"Dr. Neuman, professor of chemistry in Berlin, says: 'It is observable that sweet juices boiled down do not ferment.'

Adams, in his *Roman Antiquities*, on the authority of Pliny and Virgil, says: 'In order to make wine keep, they used to boil the *must* down to one-half.'

"Wines were sometimes made and used immediately. This was the custom with the Egyptians, from whom the Israelites received it. In the 40th chapter of Genesis we read that the butler pressed the grapes into the cup of Pharaoh, and gave the wine into the king's hand. Bishop Lowth, referring to this, says: 'It would seem from this that the Egyptians drank only the fresh juice pressed from the grapes.'

"The commentary of Dr. A. Clarke on the above passage, is this: 'From this we find that wine anciently was the mere expressed juice of the grape without fermentation. The saky or cup-bearer, took the bunch, pressed the juice into the cup, and instantly delivered it into the hands of his master. This was anciently the *yayin* (wine) of the Hebrews, the *oinos* (wine) of the Greeks, and the *mustum* (new fresh wine) of the ancient Latins.'

"These authorities will, assuredly, be accepted as establishing the statement that certain kinds of wine, extensively used and highly prized by the ancients, were free from fermentation."

Filtration was another method of preventing fermentation. Donavan says that "if the juice be filtered and deprived of its gluten or ferment, the production of alcohol is impossible."

And this boiled, filtered, and unfermented wine is that which was designated as good for the sick, and therefore the kind which we may naturally suppose Paul would prescribe for Timothy. According to Patton's "Laws of Fermentation," pp. 112, 113, Pliny, Columella, Philo, and others, state that many of the wines of their day, the fermented kinds, of course, produced headaches, dropsy, madness, and stomach complaints, and the same writers also state that wines destitute of all strength, by which we must understand the unfermented, were considered exceedingly wholesome and useful to the body.

Athenæus says of the sweet Lesbian, "Let him take sweet wine (*glukus*) either mixed with water or warmed, especially that called protopros, as being very good for the stomach." *Bib. Com.* p. 374.

This protopros, according to Pliny, was the juice which flowed spontaneously from the grapes.

Of this unfermented wine, it was possible to partake too largely, just as people could take an immoderate quantity of food, a proper amount of which was necessary. Hence this use of wine is often associated with gluttony, just as the Jews, determined to bring some charge against Christ, accused him of being gluttonous and a wine-bib-

ber. So Paul exhorts against being given to much wine, 1 Tim. 3: 8, or partaking of even this harmless drink in a gluttonous manner.

The wine which Christ produced at Cana, was undoubtedly of this character. This kind, according to testimony already presented, was most esteemed. Nor do we see that the language of the governor would necessarily imply wine of an intoxicating quality, inasmuch as when the system is overloaded with any article either of food or drink, the appetite becomes cloyed, and the gustatory enjoyment is diminished.

But if this sweet wine was not intoxicating, it may be asked, how could the charge be made that was made against the disciples, on the day of Pentecost, Acts 2: 13, when they spoke with tongues, and mockers said they were drunken? We must remember that skepticism in trying to account for a miracle always makes itself ridiculous. It was doubly so in this case. For, first, this charge supposes that making a man drunk enables him to speak correctly languages with which he is not acquainted; and, secondly, as they knew of no other way to account for the strange occurrence, except to attribute it to drunkenness, they were obliged to endorse the further absurdity that this drunkenness was produced by sweet wine (*gleukos*), which, as we have seen, was the only kind partaken of in the early part of the day, but which was unfermented, and would not produce intoxication. Their charge, therefore, was doubly ridiculous.

From all which it appears that the Bible gives no license for the use of intoxicating liquors.

U. S.

THE TRUE VITALITY OF LIFE.—The mere lapse of years is not life. To eat and drink and sleep; to be exposed to the darkness and the light; to pace round in the mill of habit and turn thought into an implement of trade—this is not life. In all, but a poor fraction of the consciousness of humanity is awakened; and the sanctities will slumber which will make it worth while to be. Knowledge, truth, love, beauty, goodness, faith, alone can give vitality to the mechanism of existence. The laugh of mirth that vibrates through the heart; the tears that freshen the dry wastes within; the music that brings childhood back; the prayer that calls the future near; the doubt that makes us meditate; the death that startles us with mystery; the hardship that forces us to struggle; the anxiety that ends in trust—are the nourishment of our natural being.

VARIOUS TALENTS NEEDED.—There is a strong disposition in men of opposite minds, says Sidney Smith, to despise each other. A grave man cannot conceive what is the use of a wit in society; a person who takes a strong common-sense view of a subject is for pushing out, by the head and shoulders, an ingenious

theorist, who catches at the lightest and faintest analogies; and another man, who scents the ridiculous from afar, will hold no converse with him who tastes exquisitely the feelings of the heart, and is alive to nothing else, whereas talent is talent, and mind is mind, in all its branches. Wit gives to life one of its best flavors; common sense leads to immediate action, and gives to society its motion; large and comprehensive views, its annual rotation; ridicule chastises folly and imprudence, and keeps men in their proper sphere; subtlety seizes hold of the fine threads of truth; analogy darts away to the most sublime discoveries; feeling paints all the exquisite passions of a man's soul, and rewards him by a thousand inward visitations for the sorrows that come from without. God made it all good! We must despise no sort of talent; they all improve, exalt, and gladden life.—*Sel.*

Wild Oats.

THOSE who have never patiently and thoughtfully endeavored to analyze human actions, and to trace them back to their first impelling motives, would be vastly surprised were they to learn how strongly the current of popular opinion and the bias of personal conduct is set in any given direction by the early instilling of some illogical deduction or even the acceptance of some radically false maxim. The supposed harmlessness or even desirableness of young men's sowing a certain amount of "wild oats," is an apt illustration of this.

"Oh, he'll come out all right, he is only sowing his wild oats;" is the opinion one often hears given in partiality or mere thoughtlessness, of some youth who is fast forging a chain of vicious indulgences that will bind him in a life-long slavery.

Wild oats indeed! Why, what a mad fellow he would be called, who should first sow his intended wheat field with cockles, or his garden of spices with nettles, as preparation for the valuable crop! "Do men gather figs from thistles?"

It is a short sowing, but a long harvest. Many a man, whose bowed form and feeble step speak of the narrow house, has been for long years slowly breaking down under the burden of that harvest whose sowing was soon to be over,—so his friends thought, in those far back days when he was the pride and hope of a loving household. Nor is the harvest limited by this present life. It extends on, and on, and on, far beyond the reach of imagination even, and from the lips of its reapers now comes the glad shout of harvest home. "He that soweth to the flesh, shall of the flesh reap corruption." Once sown, wild oats are so hard to eradicate. Many a man who seems to be a model of Christian integrity and zeal, could tell you that often

he finds himself on the very verge of despair as he discovers this seed of his early sowing sprouting out, here and there, in his inner life, just where he thought it was entirely uprooted. As in the fable, the dragon's teeth, when sown, sprung up around men, so from every wild oat sown, springs up an armed foe obstinately contesting every approach to peace, virtue, and eternal life.

If our natures were angelic, we might perhaps become disgusted with evil by a close contact with it; but it is a fatal delusion to suppose that, as we are, we can dally with sin, under whatever name disguised, and escape its pollution.

It is *not* necessary to court the friendship of Satan in order to avoid his snares, think so who will. This point may be well illustrated by this story of a Mississippi boat captain who advertised for a pilot. A tall, awkward man applied. "Do you know where the snags and sawyers are?" "Wa'll, no capin', I reckon I don't." "You *don't*, well how dare you apply for the place of pilot? Clear out." It was the pilot's turn to show a little indignation; straightening himself up he replied: "Look-a-here Capin', I'll tell you what I *do* know. I know where the snags and sawyers *ain't*." The Captain's eyes opened wide; he stared at the man a moment, then an appreciative smile chased away the wrathful look, and he exclaimed: "You are my man." That pilot did not have occasion to reply to another advertisement. He will safely bring his boats into a quiet haven who lays his course where the temptations and snares of Satan are *not*.—*Christian at Work.*

SANITARY SCIENCE.—Where shall sanitary science be taught? and to whom shall it be taught? I will answer this question by-and-by. In the meantime, let me ask: *Who need sanitary instruction?* In my opinion, the people need it—and the medical profession need it. Let the elements of hygiene be taught in every common school, in every academy, in every private school, and in every college in the country. The bodies of our youth need the saving grace of cleanliness. And when they grow up they will teach their children the simple and health-saving rules of hygiene. But where shall we begin to dissipate ignorance? Why, of course, begin with the medical profession, and begin with undergraduates.

It was a damaging thing, when one of the officers of health of New York city gravely informed Judge Whiting that "highjinnicks" meant "a bad smell arising from dirty water"—damaging both to politics and medicine, but most damaging to the people, whose most important interests were in the hands of ignorant keepers.

But what shall I say of medical schools and

hygiene? If medical schools taught hygiene *per se*, and insisted upon their graduates being "posted" in the principles of sanitary science, officers of health would at least have the merit of being sanitarians.—*J. S. Wight, M. D.*

Fashionable Heart Disease.

In a lecture in New York, Dr. Lyman said:—

"Heart disease, among both ladies and gentlemen, is the disease most in vogue at present. A synonym for pseudo heart disease is indigestion. False modes of dress, by crowding the heart, cause it to beat irregularly. Remedy the dress and the heart will faithfully perform its functions. The heart is almost the last organ to become diseased, because it has a great work to do. Nature made it strong and supplied it with as few nerves as possible. Women who faint, as a rule have too small cavities for heart and lungs. Fainting is a provision of nature for the reinstatement of the body by allowing the heart a brief respite. When the stomach is unduly distended by food, the heart is crowded, and complains. Good, straight shoulders are highly essential to women. If she possesses an erect form, a woman's heart has a better opportunity to beat evenly and healthfully. Many mistake for heart disease a palpitating sensation of the muscular wall of that portion of the stomach nearest the heart, or fatty accumulation around the heart will often render its beating labored and heavy. The heart is not, however, diseased; it is only working under difficulties. Prostration also affects the beating of the heart, causing it to pulsate more rapidly. Strength will remove this difficulty. It is a theory with some physicians that in a natural life the heart beats only a given number of times. If this be so, running up and down stairs, intense excitement, hurry, by increasing the number of heart-beats in a minute, diminish the length of one's life. It is a well-known fact that a race-horse is not long lived, because, having such a demand made upon the action of its heart, the heart muscles wear out sooner than they otherwise would."

Training of Children.

LET children grow. Give them time for slow and natural development. Give them freedom and liberty in things not positively and permanently hurtful. What matter if all their daily behavior is not quite pleasant or perfect, if they show improvement and progress. Sow good seed, anxious parent, cultivate with care, but *wait patiently for harvest* if you wish good fruit. Suppose a child does not sit as straight as a ramrod at table; suppose a cup or tumbler does slip through its little fingers, the food de-

luged, the goblet smashed, and the table-cloth ruined—do not look cross, and break out with reproof of what was unintended as if it were a willful wrong. Did you never let a glass slip through your fingers? Instead of sending the child away in anger, or with threatening words, why not be as generous as to a guest, to whom you would kindly say, "It is of no consequence." It is generally wise to take little notice of mishaps or bad behavior at the time, and even to divert attention from them at the instant. Afterward, at some appropriate time, draw the child's attention to the impropriety, fault, or lack of suitable care, and point out kindly the remedy.

A Woman's Hair.

"A LADY died in Wilkesbarre, Pa., a few weeks ago, of a singular and painful disease, brought on by the use of injurious hair-dyes. The substances contained in these "Cosmetics" had gradually penetrated her whole system, and turned her bones into something like chalk, which was very brittle and seemed to have no life in it. The first notice she had of the trouble came one morning when she attempted to raise herself on her elbow. The bones of the arm snapped in two places. A surgeon was called, and tried to set the bones, but broke them twice again. The lady was compelled to keep her bed from that time, and it soon became almost impossible to move her without breaking one or more bones, none of which would heal again. She lingered in this state for more than a year, suffering continual pain, and finally died, simply because she was not content to wear her hair as nature made it."

Some time since, the editors of the *Chemist and Druggist*, (Eng.), employed a chemist to make analyses of some of the most popular hair-dyes. He found the essential ingredients of all of them to be lead and sulphur. Here is the result of the analysis of "Hall's Vegetable, Sicilian Hair Renewer":—

"A bottle containing 6 fluid ounces furnished 70.2 grains of sulphur, mixed with sulphate of calcium (milk of sulphur having evidently been used in this case), also lead corresponding to 50.8 grains of acetate of lead."

As will be noticed, the composition of this so called vegetable compound was anything but what is claimed for it. Nothing but the most unscrupulous dishonesty could lead its manufacturers to give it such a name. Don't be ashamed of gray hairs. If you attempt to hide them, you will more probably than not suffer a severe penalty.

THE good wear their years as a crown of glory upon their heads; the bad, as a heavy burden upon their backs.

DIETETICS.

Food.—No. 1.

NEARLY all the questions relating to diet can be easily settled by any one who will take the trouble to inquire into the nature of food, and its relation to the human system. In view of this fact, we often wonder that many professed hygienists are so "unstable in their ways," so fluctuating in their dietetic practices. One day we find them quite thorough reformers; a few weeks later finds them disregarding almost every physiological law which relates to food and diet. This vacillation can only be attributable to ignorance of the fundamental principles underlying the subject of dietetics; and the object of this article, and, indeed, of this department, is to lead people to investigate and study this subject, so that they may become rooted and grounded in the principles of health reform.

WHAT IS FOOD?

The most important point in the whole subject is this very question. Upon its solution, everything depends. Dr. Edward Smith, one of the most eminent authorities on this subject, defines it as being any "substance which, when introduced into the body, supplies material which renews some structure, or maintains some vital process." He says that the difference between food and medicines is, that the former sustains vital action by supplying the material for the same, while the latter *modify* vital action without supplying anything to support the action.

Correctly understood, we think this definition is not far from the truth, but perhaps a simpler expression of the same idea will be more easily comprehended. Our definition of food is this: Any substance which, when taken into the body, is capable of being converted into healthy tissue, or of assisting in the maintenance of some vital process. As is readily seen, this is a very general definition, and covers not only those solid substances taken into the stomach, but also both water and air. And why should we not class as food that which is even more essential to the maintenance of life than that to which we usually apply the term food? Deprive a man of air, and he dies in a few minutes. Deprive him of all fluid nourishment, and speedy death results. Withhold solid nutriment only, and he may live for days—even weeks.

But we do not wish to include a consideration of the subjects of air and water in these articles, and so will confine ourself to that branch of the subject which relates to those substances which are taken into the stomach through the mouth, and which are properly

termed, aliments. It appears, then, that all we have to do in determining the character or value of any article of diet, is to ascertain whether that substance, when eaten, is assimilated, that is converted into healthy tissue, or is expelled from the body in the same condition in which it enters. Next month, we will follow out some of these principles in their practical bearings.

Salt.—No. 2.

LAST month we promised to attempt to explain why people who have been long accustomed to the use of salt sometimes find it so difficult to abandon its use, and even occasionally suffer from indigestion for a little time while making the change. All we ask is a careful, candid hearing, and then every one is at liberty to act as his good sense may dictate.

In order to understand why the discontinuance of the use of salt should produce the effects sometimes observed, we must first understand its action, or rather, how the system acts upon it when it is taken into the stomach with the food. Of course, we shall repudiate at once all those fanciful speculations, referred to in the previous article, which regard it as a tinker, a regulator, or a *something*, call it what you please, which travels about the body inspecting its various parts, and in some mysterious way, nobody pretends to know how, contributing to its reparation or healthy maintenance. We will confine ourselves to a consideration of what we *know*, and what is, in the light of hygienic principles, susceptible of the simplest explanation imaginable.

When a small quantity of salt is taken into the stomach, it irritates the delicate membranes of that organ just as it does those of the eye when placed in contact with them, only in a somewhat less marked degree, especially after they have become hardened and deadened by continued abuse. Finding itself thus irritated by the contact of a foreign substance, what does the stomach do? Does it recognize it as a friendly agent and treat it as such? No, indeed; it immediately pours out an abundant quantity of fluid, serum, to wash the alkali away from its surface, and dilute it, thus decreasing its power for harm. But it cannot suffer even the diluted poison, for such it is, to remain long within its precincts, and so it sets to work a thousand little mouths to suck it up into the veins and carry it off to the liver to be strained out and so removed from the circulation. But the liver is unable to get it all out, and the kidneys must assist. They are also unable to complete the separation of the caustic, irritating salt, and the current of the blood carries it on to the other depurating organs, each of which does its part in removing from the vital fluid that which they all recognize to

be a foreign substance, wholly unusable, and which can be only productive of injury if retained in the system. Thus we find the perspiration salt, just in proportion to the amount of saline material taken into the stomach. But all of the depurating or excretory organs together are unable to quite complete the work of eradication, and so we find this troublesome salt still remaining in the vital fluids of the body—the saliva, the gastric juice, the lacteal secretion, and the blood itself. Then the chemist takes some of the blood, analyzes it, finds salt, and very wisely declares that those who denounce the use of salt are rank fanatics, for he has found it in the blood, which is decisive evidence that it is a necessary article of food!

It will be readily seen that such a process as we have described must be attended with a greater or less amount of commotion, just according to the amount of the salt to be got rid of. Each organ is excited to increased action, just as would a flock of sheep be put in violent agitation by the sudden appearance of a wolf among them; or as a horse which may be already very weary is caused to start with apparently renewed energy by the application of the driver's whip. But as the whip only excites, and does not strengthen, the weary horse, so with salt. It cannot be assimilated. It cannot be used in building up nerves and muscles; they can only be formed from living, organized matter.

We see, then, by tracing the particle of salt from its entrance to its exit that it is utterly incapable of serving any useful end in the living system. Then a person who uses salt is very much like a farmer who would employ one man in scattering stones about his fields while another was busily engaged in gathering them up and carting them away. Such a farmer would well be reckoned very foolish; but are not we equally unwise when we with our hands voluntarily place in our mouths that which our stomachs, liver, kidneys, skin, and every other outlet of the body, are working with all ardor to remove?

But we have not yet answered the objection which practical experience seems to bring; viz., that the rejection of salt from the diet is attended with unpleasant and sometimes painful effects. Why is this if the article is so bad? We will try to explain. As already observed, when the stomach recognizes salt in contact with its delicate surface, it immediately sets at work thousands of little vessels, called absorbents, to suck it up and carry it away. This process of course calls to that organ an increased supply of blood. After the practice of eating salt has been continued for some time, the stomach gets so accustomed to digesting the food under the stimulus of this extra amount of blood that when the exciting condi-

ment is omitted from the diet the digestive organs are somewhat tardy in performing their work, so that indigestion is the result. It is exactly the same with the tea or coffee-drinker, the tobacco-user, as well as the habitual wine-bibber; when the accustomed stimulus is withdrawn, the person is for the time unfitted to perform his usual duties. A change is made in the system, and time must be allowed for nature to right herself and become accustomed to working under the new order of things.

The truth is, that the sense of loss experienced upon the abandonment of salt is evidence of its pernicious character, rather than of its utility as an article of diet.

Finding, then, that salt is an agent of mischief in the body, that its influence is wholly harmful, shall we say to all who use it, as do some of our more radical reformers, that it should be wholly and forever abandoned at once? We think that reason will hardly justify this course. Habits to which the system has become accustomed by long continuance sometimes are the most properly abandoned in the same way in which they are acquired; viz., by degrees. Many people can relinquish salt at once without the least inconvenience, if they would only make up their minds to do so. Others seem to pass through a more severe struggle with the habit, and may best make a gradual change. It is quite probable that *none* would die from the want of it, although they might feel very uncomfortable. The fact is, the influence of the mind has a great deal to do in this matter, as in many others relating to health. If the taste could only be satisfied, or if the imagination could be utilized in favor of overcoming the habit, rather than in the opposite direction, we apprehend that little difficulty would ever be experienced in excluding salt at once from the dietary of the most inveterate user of the saline condiment. A little incident will illustrate the truth of this.

Some time since, a homeopathic friend determined to adopt the hygienic diet. In essaying to do so, one of the first steps was the interdiction of salt. He stated to us that as the result of thus suddenly depriving his system of an article to which it had been accustomed for many years, he found himself afflicted with a very painful coryza, his nasal passages being in a state of active inflammation. Being an enthusiastic believer in the "potentizing" principles of Hahnemann, he at once resorted to the use of *natrum muriaticum* pills of the sixth "attenuation;" which means, in simpler terms, that he used small pills, made by mixing one grain of common salt with ten grains of sugar, and then taking one grain of the mixture and mixing it with ten other grains of sugar, repeating the process until the sixth mixture had been prepared, which was made into minute pills of the size of a small pin head.

Our friend assured us that so highly "potentized" were these little sugar-and-salt pills, by this process of attenuation, that he had found *three of them taken each day* to be amply sufficient to meet all the demands of his system in the direction of salt, and that all symptoms of disturbance from lack of it immediately disappeared before the magic influence of this *potent* medicine. Yet he unhesitatingly confessed that all the salt in his bottle of pills would not equal a crystal of the pure article as large as one of the pills.

A little computation will show that, in this case, less than one-millionth of a grain of salt, potentized by the imagination, was found an ample sufficiency for a person who had for many years used it largely as an article of common diet. A grain is a quantity equal in weight to a grain of wheat. We should not feel the slightest hesitation in recommending the use of *natrum muriaticum* pills to any of our friends who may find themselves suffering from the attempt to rid themselves of the appetite for salt, and would suggest that by potentizing them to the twentieth or thirtieth preparation they would probably find one pill a day quite sufficient to supply all the demand for the article that really exists in the human system.

But long before this our radical brother who may have been perusing this article, has been ready to send what he would term a stunner at us by saying, "If you advocate the propriety of reforming from the transgression of physical laws by degrees, why not manifest the same leniency with reference to moral reformations? In short, why not teach men to abandon swearing, lying, cheating, stealing, etc., by easily graduated steps, lest too sudden a change might shock the tender consciences of some of them?" This does look like a somewhat formidable objection; however, we will attempt to fully answer it in a future article on "Change of Diet."

Our practical friend may complain that thus far all our arguments have been largely theoretical, and that actual experience should be produced as evidence. For his satisfaction, we will add a little evidence of this sort before closing.

Dr. Graham has collected a large number of facts bearing on this subject. He states that there are several North American tribes the members of which are wholly unaccustomed to the use of salt. Mungo Park, the great African traveler, found many of the tribes of Central Africa living in perfect health without ever tasting a particle of salt. Several tribes in South America are in the same condition. And, to come nearer home, we can state that we are personally acquainted with some scores of persons who never taste salt, using not a particle of it in their food. I have passed many months without tasting a particle of

salt, and without the slightest detriment to health, but an improvement instead.

But do not domestic animals love salt? and do not wild animals frequent places termed "salt licks"? Some domestic animals seem to like salt, and some do not. Some animals, and some human beings also, are fond of clay. Chickens eat (swallow) pebbles. Should intelligent men eat clay and pebbles? Domestic animals like salt when they are accustomed to it from infancy, not otherwise. I was well acquainted with the habits of a certain horse for more than fifteen years, and know that during that time he could not be induced to eat salt, either by itself or when mixed with his food; and yet a plumper, healthier horse was never seen. Do birds ever eat salt? do squirrels, raccoons, or fresh water fish? Or does the orang-outang, the dietetic homologue of man, find salt essential to the maintenance of his health? Let the advocates of salt-using answer. If these animals live without salt, why cannot man? Have they not tissues to be "tinkered," and gastric juice to be supplied with hydrochloric acid (?) as well as man?

In conclusion, we would remark that the difficulty of overcoming the appetite for salt wholly disappears when the change is made slowly but surely and with steady perseverance. Begin by banishing it from the table, thus removing the temptation. Put into the food in cooking all that must be used. After a little time, gradually decrease the amount employed in cooking. Keep decreasing the amount, never for once going back to the former quantity. In this way, the quantity employed will gradually become infinitesimal, and may then be left entirely out by the cook, and no one be able to detect the loss. We are not an advocate of rapid changes, but sincerely believe that the highest degree of physical, mental, and moral health, can only be attained by constantly approximating as nearly as may be to the primitive simplicity in diet which the laws of nature indicate to have been the design of the Creator in reference to man.

Pie-Plant and Oxalic Acid.

LAST month our readers' attention was called to the rhubarb or pie-plant as a valuable article of food on account of the agreeable acid which it affords. The following words were used: "This plant furnishes a very excellent acid which makes a good dressing for various dishes requiring sour sauce." In reference to the healthfulness of pie-plant, a correspondent sends the following:—

"I understand that this *excellent acid* is almost entirely *oxalic*, a very poisonous article. And I know of no fruit, the growth of our country, that contains any sensible portion of this poisonous acid. Theoretically, can this be

fairly considered a healthful article of diet? My attention was called to it quite a number of years ago, by remarks made by Solon Robinson, published at the time in the *N. Y. Tribune*, in which he attributed the sufferings of a pretty severe form of dyspepsia to its use; and as it requires a large amount of sugar to make it palatable, is it not a fair inference from these two *practical* facts that the advocates for its liberal use as food may have been unwittingly led by *fashion* to recommend its use as a hygienic article of food? This, I apprehend, is the fact; for, looking at it from my standpoint, I cannot so regard it.

"May we not reason in regard to this article as we do, for instance, in regard to the use of tobacco? We say that is injurious *because* it contains vegetable poisons; why not say the same with regard to the pie-plant, though the poison may be more diluted in this than in the other article? INQUIRER."

The facts referred to by our correspondent have been familiar to us for some years, and were not forgotten when the paragraph with reference to the article in question was penned. However, we are grateful to him for calling attention to the subject in the very gentlemanly manner in which he has done, as it affords us the opportunity of placing before our readers several points of interest with reference to food in general.

Chemists have long known that an acid possessing poisonous properties when taken into the system uncombined, in sufficient quantities, could be obtained from the common sorrel, rhubarb, and many other common vegetable productions. Microscopists have more recently discovered that not only may this acid be *obtained from* these plants, but that it actually *exists* in them, being visible by means of a powerful microscope in the form of minute crystals in the cells of the plants themselves. It cannot be said, then, of oxalic acid, which is the name of this acid, as we so often say of alcohol, that it does not *exist in* the living vegetable, but is artificially formed by the destruction of the organic life of the living plant. "What further evidence do we need, then, that pie-plant is poisonous, and wholly unfit for food?" some one may say. Before coming to this conclusion, let us examine a little further. The inquisitive microscopist has been peering into the secrets of many of our most wholesome grains and vegetables, and he finds little crystals of inorganic matter in them, as well! Not only so, but he finds that these same crystals are composed of exceedingly poisonous acids in combination with potash, lime, soda, and other alkaline substances. Phosphoric acid, one of the most poisonous known, many times as poisonous as oxalic acid, is very abundant in wheat, oats, peas, beans, and many other arti-

cles of food, in combination with lime and soda. The crystals of phosphoric salts can actually be seen in great numbers in the bran of wheat and oats. Are these valuable articles consequently poisonous? Certainly not. Phosphoric acid when free, or uncombined, is violently poisonous, even its vapor often producing the most horrible maladies. Oxalic acid is also poisonous, when free, though in a much less degree. But neither the phosphoric acid of the wheat, nor the oxalic acid of the pie plant, exists in an actively poisonous condition. In pie-plant and sorrel, the latter is combined with potash; while in many lichens it is united with lime, forming oxalate of lime.

We see, then, that the fact that a plant contains a substance which under certain circumstances produces poisonous results is not sufficient to prove it poisonous. Consequently, even tobacco is not pronounced to be a virulent poison simply "*because it contains vegetable poisons.*" The reason why we should discard tobacco as a "filthy weed," a poison, and an unmitigated nuisance to every lover of health and purity, is because we find that its use is productive of evil results, and not because we find certain little glands upon its leaves which contain a poisonous oil known as nicotine.

Theoretical grounds are not wholly sufficient for the establishment of dietetic principles. Actual experiment must determine the salutary or pernicious properties of various articles of food. All true theories are founded on experience. And yet, in undisciplined hands, experience is a very unsafe guide. A theory once established by induction may be employed to interpret and explain the results of experience which would otherwise be contradictory and confused.

What does experience determine with reference to pie-plant as an aliment? Does it produce dyspepsia, as Solon Robinson affirms? or are there other causes sufficient to account for the dyspepsia without criminating this succulent vegetable? Of course, we have no means of determining but by appealing to the facts from which Mr. Robinson drew his conclusions, or to our own personal experience. Not having access to the former, the latter must be our criterion. The matter is certainly worthy of investigation; and we do not hesitate to recommend to our friends that if any of them find themselves becoming dyspeptic from the use of rhubarb as we recommended it last month, viz., with little sugar, as a "dressing for dishes requiring sour sauce," they should abandon it at once; and that others may be benefited by their experience, we would be very much gratified to have them report to us.

It is estimated that the average amount of wheat annually consumed is nine bushels for each individual.

To Correspondents.

CATARH.—J. F. J. *Symptoms.* Pain in temples, discharge of mucus from the throat after taking cold, sometimes mixed with blood.

Treatment. Nothing but constitutional treatment will be of any avail. Local treatment will never effect a permanent cure. Frequent sitz-baths and fomentations to the region of the head are indicated. Sun-baths and dry-hand rubbing will be excellent to produce activity of the skin. Diet must be strictly hygienic. Milk and sugar should be avoided.

PLEURISY, PLEURITIC ADHESION.—C. S. M. took cold, had pleurisy, night sweats, and resulting adhesion of the pleura. Wishes to know what kind of food is the best nerveine.

Treatment. Dripping-sheets, fomentations over lungs, half-packs, sitz-baths, and percussion of the chest. No food is nerveine; only poisons possess nerveine properties. Anything which possesses nerveine qualities is not food. Some *medicines* are nerveine.

PIN WORMS.—I. A. H. is much troubled with pin worms, especially nights.

Treatment. A spare diet for a few days, consisting of hard bread, thoroughly masticated, with ripe fruit, raw apples being preferred, accompanied with daily injections of cool water, will usually effect a cure, as worms cannot live where perfect cleanliness is maintained. If this treatment is not successful, some good anthelmintic may be taken. Kellogg's "worm tea" is as good as any.

DIET FOR CHILD.—W. L. B., Ohio, has a child three years of age. Wishes to know in reference to its diet: 1. Shall we give it butter? 2. Should she drink water at meals? 3. Should she eat between meals? She eats little at meals.

Ans. 1. Butter is not good food for children or adults. Children should never be taught to use it. 2. Drinking water at meals is bad for any one. The child will have less desire to drink at meals if allowed to drink a few minutes before eating. 3. Children need to eat more frequently than adults, but should not be allowed to eat between meals. Three meals per day are sufficient for a child of three years.

HARD WATER AND KIDNEY DISEASE.—J. H. has been suffering for several weeks from inward fever which yields readily to water treatment, but soon returns. Uses hard water.

Treatment. Hard water doubtless aggravates your difficulty, if it is not the main cause. Avoid it as much as possible, substituting juicy fruits as far as expedient. Packs and sitz-baths, with simultaneous fomentations over the liver, togeth-

er with dripping-sheets, is the treatment indicated.

SORE EYES.—J. N. B., Washington Territory, thinks he has granulated eyelids, for which he has been using eye-water prescribed by a drug physician. Is a second-rate health reformer, he says.

Treatment. Packs, dripping-sheets, fomentations over stomach and liver, and fomentations over the head and eyes, will probably give relief. He should become a *first-rate* health reformer.

LUNG DISEASE—B. M. E., Vt., has a feeling of oppression in the lungs, with pain, which is increased by using the arms; severe chills at night, followed by burning, feverish feeling, with slight cough; expectorates a tenacious, white mucous matter; a feeling of great weakness about the chest.

Ans. Your symptoms clearly indicate serious affection of the lungs. We cannot recommend any course to you except to go to a good health institution as soon as possible.

WORMS.—T. H. R., Wis.: See previous note in answer to I. A. H.

UTERINE DISEASE.—J. E. S.: The difficulty of which you speak is successfully treated at the Institute without mechanical appliances, but is not susceptible of satisfactory home treatment.

HYGIENIC FOOD.—B. C., O., writes: I see in your April number that you oppose the use of butter and molasses for persons troubled with dyspepsia; also think the use of milk objectionable. Therefore, please tell us through your journal, 1. Is butter objectionable? and why? 2. Is New Orleans molasses objectionable? and why? 3. Is new milk from healthy cows from upland pasture, objectionable? and why? 4. Is new buttermilk objectionable? and why? 5. When you speak of not using sugar, do you mean when cooked in food, or when used as seasoning for mushes, etc.? If you see proper to answer any of these, you will favor.

Ans. 1. Yes. 2. Yes. 3. Not the *best* food. 4. Buttermilk, even when new, has generally already begun the process of decomposition, the cream having been allowed to stand a greater or less length of time before churning; hence it cannot be even so good as new milk. 5. We seldom interdict the use of sugar altogether, allowing its moderate use in sour fruits; but there can certainly be no necessity for its use with any of the grains, as they not only contain a considerable amount of sugar, but are wholly destitute of acid properties.

We will undertake to tell why butter, milk, sugar, etc., are harmful, in the department on "Dietetics" in this and future numbers.

PHYSICIANS, HEALTH INSTITUTE.

SEASONABLE HINTS!

Small Fruits.

STRAWBERRIES have appeared at last in all their delicious excellence; and soon we shall have the raspberry and blackberry. All kinds of small fruits are promised in abundance this season; and all who are anxious to cultivate and maintain a strictly hygienic diet, should not fail to secure an abundance of these good things, which are never quite so well appreciated as when they are absent.

The canning of small fruit, especially strawberries, is attended with a little more difficulty than that of ordinary fruit. The principal difficulty lies in the fact that the flavor of the fruit is so delicate that much cooking greatly injures it, while it is almost certain to spoil after canning if the cooking is slightly done. Scalding for about five minutes is said to be sufficient length of time to thoroughly cook them.

Summer Drinks.

In this hot, uncomfortable weather, the desire for cooling drinks becomes quite imperative. How shall we satisfy it? Shall we resort to soda water, ice-cream, and similar preparations? Not if we wish to avoid the epidemics which are sure to come with the hot days of July and August. They are all pernicious. The sirups used in soda water are villainous compounds; many of them contain deadly poison, and some of them are manufactured from such vile stuff as coal tar. Iced-water is also injurious in any but very small quantities. Cooling and pleasant drinks can be prepared from lemon, pie-plant, or currant juice, which will be harmless, and palatable.

Fetid Perspiration.

THIS common source of annoyance to all persons blessed with sensitive olfactories, or with a due regard for the smelling organs of other people, is always attributable to one of three causes: 1. Inattention to proper cleanliness; 2. Excessive impurity of the blood; 3. Defective action of some one of the great depurating organs. In some persons, a disagreeable odor will seem to become chronic in some part of the body, being of so persistent a nature that ordinary means seem almost useless to remove it. Especially troublesome are peculiarities of this nature during the warm months of summer, when the excretory glands of the surface of the body are unusually active. In cases of this sort, alternate hot and cold bathing of the affected parts will often be found very efficient in effecting a cure, especially if the water application is followed by vigorous friction with the hand. A friend suggests that in cases of this character, as an unpleasant odor from the groins, armpits, or feet, the use of an acid wash is very efficacious. A little vinegar and water makes a very suitable wash.

Almost daily ablutions are quite essential to perfect cleanliness in the sweltering weeks of mid-summer. When this is unattainable, vigorous friction of the whole body with the bare hand morning and night is the next best thing. One of the best possible preventives for ague is to keep the skin constantly clean and active.

Literary Notices.

NINTH ANNUAL REPORT OF THE NATIONAL TEMPERANCE SOCIETY: New York.

This pamphlet presents a full account of the working of the society during the past year; and if the amount of work really accomplished in the publication of tracts, pamphlets, and bound volumes upon the subject of intemperance in all its bearings, and the extensive circulation of the same, may be any evidence of the activity and efficiency of this society, we may certainly believe it to be accomplishing a great amount of good in the cause of temperance. Many of its publications are circulated gratuitously, the society being largely supported by donations.

PRECAUTIONS AND SUGGESTIONS PERTAINING TO THE ENJOYMENT OF HEALTH AND COMFORT. Baltimore: Ross Winans.

This is a pamphlet of 27 pp., which is made up of selections from various authors. It contains many excellent things bearing on health and hygiene.

MEDICAL RECORD. New York: Wm. Wood & Co.

This journal is devoted to medicine and surgery, and deserves commendation for the attention it gives to hygiene. We notice that a considerable portion of its space is devoted to the interests of life insurance; and it may not be impossible that this may influence its character somewhat, as life insurance companies seem to be waking up to the fact that their best chance for success lies in improving the health of their patrons.

USE OF TOBACCO: By John H. Griscom, M. D. New York: G. P. Putnam & Son.

Tobacco-using is coming to be recognized as an evil even greater than liquor-drinking; and every publication which displays its ruinous effects, and exhibits its disgusting filthiness, should be welcomed by every friend of humanity. Hence, we cannot do otherwise than wish for the little pamphlet before us the extensive circulation which it deserves.

FIRST ANNUAL REPORT OF THE STATE BOARD OF HEALTH. Lansing, Mich.

This is a bound volume of one hundred pages of very interesting and valuable matter. Besides general information respecting the organization and working of the board, it contains three valuable articles by Prof. Kedzie of the Michigan Agricultural College, entitled, respectively, "Illuminating Oils," "Poisonous Paper," and "Hygiene of School Buildings," together with plans for the ventilation of school-houses. Great credit is due the committee for the energetic way in which they have entered upon the performance of their duties in the service of the public.

THE SANITARIAN: A. N. Bell, M. D., editor. New York: A. S. Barnes & Co.

We take pleasure in frequently noticing this excellent journal which is certainly doing a very efficient work in the dissemination of scientific knowledge upon the subjects of public hygiene, prevention of contagions and epidemics, and kindred topics.

SCIENTIFIC.

Instinct.

How much of mystery this little word is supposed to explain! Everything remarkable in the habits or conduct of the animals which rank below man in the scale of animated nature, is attributed to instinct. Ask the farmer why the raven builds its nest of wool and fur while the lark builds of dry twigs and grass in a furrow. He will answer that instinct makes the difference. Ask the city lady why her pet canary whistles its own peculiar song instead of that of some other bird. Instinct, will be the answer.

Suppose, now, we ask why the oriole builds a flat, shallow nest, or a deep, pendant one, according as she attaches it to the upper side of a stiff limb, or suspends it from the swinging top of a slender twig. Does instinct, or circumstance determine the difference? Or why does the wren exchange its own peculiar lay for that of the lark when reared in company with larks, instead of its own kind? Does its instinct change?

Is it not expediency, rather than "blind instinct," which leads the raven, that feeds upon carrion, to build its nest of the wool and fur which it finds with its food? Does not convenience teach the king-fisher to use the bones of the fishes upon which he feeds with which to construct his nest? And what other circumstance than simple convenience is necessary to explain why the flamingo, which spends its life in stalking about in miry bogs and marshes, should build its rude nest of the mud so abundant, and so easily shaped by her huge, spade-like beak into a conical hillock with a hollow at the top where her eggs will be safe and dry?

In view of these facts, and many similar ones, some of our most noted scientists are beginning to advocate the theory that what has been so generally regarded as instinct, is simply education, acquired, unobserved by man. In many cases, there is doubtless a hereditary disposition to acquire certain habits, which may, in some cases, almost amount to an inheritance of the habit itself; but this is something also common to man. The inhabitants of the Malay Islands have for many ages been in the habit of constructing their rude dwellings upon piles, so as to avoid the dampness which everywhere prevades the low coast land. As some tribes have penetrated into the interior, they have continued the same custom although the ground is high, dry, and rocky, and the air equally salubrious, so that no possible reason for such a practice exists. Of course, no one would call this instinct, and yet there are just as good grounds for calling it such as for so naming the thousands of similar incidents we observe in lower animals.

We shall probably be finally compelled to believe that the principal difference between man and the lower animals is the possession of a higher grade of intelligence by the former, with the addition of the whole group of moral organs; while the latter possess a more limited degree of intellectual development, and are wholly destitute of moral faculties, and, consequently, of moral responsibility.

Mutations of Geological Science.

GEOLOGY is one of the most modern of sciences; and although its development has been rapid, and its revelations wonderful, and doubtless in many cases truthful, we cannot fail to notice that in some instances its conclusions and predictions have been greatly wanting in scientific accuracy and truthfulness. One well-known instance in which this inefficiency was exhibited was that of the Hoosac Tunnel, which was only finished quite recently, although projected and commenced many years ago. The long years during which the work was prosecuted, were one continual scene of disappointment and failure. Company after company attempted the task, and were obliged to relinquish it in bankruptcy. And it was only finished, finally, at an enormous expense to the State. And all this in spite of the firm declaration of a very expert geologist that the heart of the mountain would be found of so soft and yielding material that the process of tunneling could be prosecuted with great facility. Of course, the assertion was based on the supposed established principles of geology. Actual trial, however, found the mountain composed of material so firm and unyielding that its penetration was almost an utter impossibility.

Another instance of a less serious, and decidedly ludicrous, nature, has, within the last year, fallen under our observation. In the early part of 1873, the scientific journals announced to the world that traces of man had been discovered in what was termed the *Miocene* period, which fact was supposed to establish man's antiquity as much greater than had formerly been believed. Indeed, it carried him back through long ages, myriads of years, during which it had before been thought by all geologists that the conditions necessary to man's existence had been wholly absent, none but the crudest and most hardy of the animal kingdom being capable of surviving the destructive influence of the many circumstances inimical to human life. Notwithstanding all these difficulties, however, the discovery of certain stones upon which were to be seen curious tracings, which a little use of the "scientific imagination" could convert into rude outlines of animal forms, was considered sufficient to establish man's agency in these crude attempts at drawing, and his consequent existence in the early age when the stones were supposed to have been exposed upon the surface of the earth. The illusion was only dispelled some months later by the critical examination of the stones in question by a learned professor in Constantinople, who found no evidence whatever of human agency, or of any more definite design than that which a worm has in mind as it crawls slowly and laboriously around among and between the layers of soft rock which may lie in its way. And so it is now admitted that the wonderful drawings were made by worms instead of men, and the period of human existence has been abbreviated by a few millions of years.

Many other similar facts might be mentioned; and what do they show? Do they indicate that geology is wholly false? that its deductions are wholly unreliable? Oh! no; they only teach us that the science is yet undeveloped—quite in its infancy; and they hint to us that we cannot safely trust its testimony unless supported by facts otherwise demonstrated.

Items for the Month.

To Old Subscribers.

WE send this number of the REFORMER to several hundreds of our old subscribers whose subscriptions expired with the June number. This we do, hoping that by a little forbearance we may avoid the necessity of striking from our list the names of so many of our friends whose patronage we need, and who, also, cannot afford to do without the many useful hints and valuable instruction which each number of the REFORMER presents to them. Each person who is invited to renew will find in his journal a little blank, which he has only to fill out with his name and address, inclose in an envelope with the small sum of one dollar, and forward to this Office, to secure the HEALTH REFORMER for another year. Who will say he cannot afford it?

We are constantly in receipt of letters from friends who assure us that no pecuniary inducement could lead them to attempt to get along without the information which they receive through the columns of this journal. We mistrust that those who think they cannot afford the paltry sum of \$1.00 for general and particular information on the most vital of all important topics, are the ones who are most in need of this very kind of information.

Send in renewals early, as our rule of "pay in advance" will oblige us to strike from our list all who do not renew before the issue of next number.

New Tracts.

WE hope to be able to announce next month the publication of several new health tracts on subjects of vital and practical interest, and adapted for general distribution. Any suggestions with reference to subjects, etc., will be gratefully received.

Health Almanac.

WE are making preparations for publishing a Health Almanac for 1875. We intend to be on hand with it in good season. Many of our friends have been calling for such a publication for some time, and we now expect to be able to gratify them.

Oatmeal.

"WHERE can good oatmeal be obtained?" is a question we are frequently receiving. Many who have heard of the excellence of this really delicious article of food procure a supply of some small dealer who does not have occasion to replenish his stock more frequently than once a year. They are pretty sure to find such oatmeal bitter and musty, if it ever had been a good arti-

cle, and so they conclude that it is not so desirable a food as it has been recommended to be. All such vexation and disappointment may be avoided by sending to F. Schumacher, Akron, Ohio, a manufacturer of oatmeal, farina, etc., and a man whom we know to be perfectly reliable from long dealing with him. Send to him for prices.

Cook Book, and Proper Diet for Man.

THESE two pamphlets announced in last number, are having a very rapid sale, and we are in receipt of many letters of commendation from those who have examined them. In the first is given a fine collection of hygienic recipes, with general directions for cookery, preservation of fruit, and other useful hints. The second is a pamphlet especially designed for general circulation among those who are interested in the investigation of the subject of diet.

Trichinæ.

ALMOST every day brings to our ears new accounts of the terrible workings of this horrible creature. Not a week passes but deaths occur somewhere from eating infected pork; and such horrible deaths, too, as beggar all description. The newspapers are constantly telling the people that they must *fry their ham and sausage longer*, thus subjecting the parasites to a greater heat and so killing them. As much as to say, you need entertain no fears of treating yourself to a dish of fricassee trichinæ! A pleasant thought, indeed!

A few days ago, we were so fortunate as to procure a bit of flesh obtained from an individual who had died with trichinæ. Upon subjecting it to the scrutiny of a microscopical examination, with a good instrument, we were enabled to discover multitudes of the little creatures, each coiled up in its little sack, ready, as soon as liberated, to begin its work of devastation in the vital domain of the animal dining upon it.

We carefully examined one small bit of muscle about one-eighth of an inch square, in which we found, by actual count, something more than *five hundred*; and from all appearances, we felt quite convinced that there were fully as many more which we had not counted, as they lay in such thick masses that it was impossible to isolate them. A little figuring will show that there must have been in each cubic inch of flesh from which the specimen was taken, between 250,000 and 500,000 of these horrid scavengers. People are beginning to open their eyes to the danger of eating pork, a thing never intended for dietetic purposes.

THE HEALTH REFORMER.

BATTLE CREEK, MICHIGAN.

Terms:  One Dollar per Year, invariably in Advance.
Address HEALTH REFORMER, Battle Creek, Mich.