

The Health Reformer.

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

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What Is Wanted.

MANY of those who have by personal experience participated in the manifold blessings which result from a careful adherence to all the requirements of hygiene are often led to wonder why the cause of health reform does not make more rapid advancement than we are at present able to perceive. Surely, the object of the movement is a worthy one, as all must admit. The glorious results of the promulgation and adoption of the truths it advocates, are everywhere apparent. Its principles are simple, reasonable, and self-evident to the candid investigator. Why, then, do we not see the ranks of reformers rapidly swelling from thousands to millions, and the warfare against error and uncleanness rapidly approaching to decisive victory? Alas! says one, the advocates of unsound theories and supporters of wrong and injurious habits are so numerous and powerful that a little handful of crusaders can make little headway against the mighty tide of error; and, in addition, we have a most stubborn and almost unconquerable foe to contend against in the perverted appetites and unnatural tastes of the majority of men and women at the present day.

Doubtless, these are among the great obstacles which impede the progress of the cause; but we think a little attention to the matter will disclose the fact that, after all, the greatest obstacle is within our own ranks, rather than among the outside enemies arrayed against us. It cannot be denied that we are met with bitter and determined opposition on every hand; but this need not discourage us. Opposition is only a stepping-stone to success. Nothing but antagonism can give energy and animus to any reformatory movement. Anomalous though it may seem, we claim, then, that the resistance

against which we are constantly obliged to contend, and which may often seem so unfortunate and undesirable, may really become greatly subservient to the noble ends and purposes to which our cause is devoted.

In our opinion, the great want of the cause of health reform at the present time is a proper representation of its truths before the people. The American people, and, in fact, the people of nearly every civilized nation, are rapidly escaping from the thralldom of conservatism and ignorance, and are beginning to consider the great problems which are presented to them for solution, with reference to their real merits. When they can obtain true and unprejudiced views of the genuine principles of health reform, they will be ready enough to adopt them, just as they have done with certain great political reforms. But the great misfortune is that the noble and elevating truths of health reform are seldom properly represented; and, in fact, are more frequently than otherwise, grossly *misrepresented* by its professed adherents and advocates. The ranks of hygienists are filled with pseudo-reformers and fanatical extremists; and, perhaps, worst of all is the shameful quackery which is becoming yearly more prevalent among us. It is to the latter evil, especially, that we wish to call attention in the present article.

All our health journals, and many other sensible periodicals, are unstinted in their condemnations of the ruthless quackery which fills our newspapers with flaming advertisements and forged certificates of cure, and makes apothecary shops of our neighbors' stomachs while their constitutions are being shattered. We have no complaint to bring against this very commendable exposure of imposition and fraud. No amount of stigmatizing can overdo the matter so far as justice is concerned; but we are decidedly of the opinion that quackery is by no means exclusively confined to those who are outside the ranks of hygienists. A quack is a person who makes pretensions to knowledge not possessed—a charlatan; can it

be disputed, then, that such is the proper appellation for a person who sets himself up as competent to minister to the wants of suffering humanity in the capacity of a physician while wofully ignorant of some of the primary branches of a medical education? Yet it is our misfortune to be personally acquainted with quite a number of individuals who attempt to palm themselves off upon the community as hygienic doctors who do not even know the names of the bones of the human system, to say nothing of the hundreds of other organs, and who can talk with simple ignorance of the catarrhal inflammation of a serous membrane and like absurdities.

Such ignorance very justly elicits the reproaches and contempt of physicians of the regular school, who, it cannot be denied, have learning and science, whatever may be their errors in doctrine. If we wish to receive the respect and confidence of the intelligent classes of the people, we must show ourselves worthy of such confidence. Hygiene and hygieotherapy have as much use for science as have drugopathy and empiricism. No man can be really successful as a practitioner of hygienic medication without a thorough knowledge of the collateral sciences as well as of anatomy, physiology, and surgery.

What we want, is thoroughly qualified men to act as lecturers and public teachers who will represent the subject of health reform in all its grandeur, beauty, and nobility, as well as its simplicity, purity, and wonderful utility. What is most needed is that the standard shall be elevated in the eyes of the people. Pretenders and extremists must be discountenanced; charlatans must be exposed; bigoted ignorance must not be tolerated; and our literature must be purged from the last suspicion of quackery.

More about Poisonous Sirups.

WE have a number of times called attention to the terrible and extensive adulteration of sirups which has been carried on in this country during the past few years, and is now greatly upon the increase. Notwithstanding the many facts we have presented, some individuals are still incredulous, and even feel disposed to dispute some of the best attested facts of chemistry, virtually repudiating the testimony of every author of a text book on chemistry, to say nothing of the thousands of practical chemists engaged in the didactic teaching of the science. For instance, when we have shown to

numerous individuals specimens of spurious sirup, which by careful chemical tests we had found to contain iron, sulphuric acid, lime, and other impurities, together with a large proportion of grape sugar in place of cane sugar,—upon making such an exhibition, with the remark that the article under observation was largely made from refuse starch, cotton rags, and, possibly, saw-dust, we have often been met with expressions of the strongest distrust and unbelief. One individual, who was wholly innocent of the slightest knowledge of chemistry, found it impossible to conceal his contempt for any person who could be so idiotic as to believe that sugar could by any other than miraculous means be produced from starch or woody fiber. "Why," said he, "saw-dust is not sweet; how, then, can anything sweet be made from it? Don't tell me any such nonsense."

If we may judge from some queries received, several of our correspondents are in a similar predicament with the person whose words we have quoted: hence our notice of the matter. The production of sugar from starch or cotton is, indeed, a wonderful process. The chemist says that the transformation is made by the addition of four molecules of water to one of starch or cotton; but just how the change occurs, is a mystery as deep as that involved in the transformation of grass or hay into milk in the system of the cow; or in the conversion of coarse herbage into wool by the vital mechanism of the sheep. We are well acquainted with the *result*, but know little of the *modus operandi* of the process.

In the plant, sugar is produced from carbonic acid and water, and is then converted into starch and woody fiber. In the manufacture of spurious sirup, the starch and woody fiber is mingled with sulphuric acid, and by gentle heating reconverted into sugar, not, however, in the pure state in which it originally existed.

Dr. Kedzie, professor of chemistry in the Michigan State Agricultural College, has recently examined this subject, and the results of his investigation are set forth in the following paragraph from the report of a meeting of the State Board of Health, of which he is a member:—

"At the last meeting of the Board a case was mentioned where a family in Hudson had been poisoned by the use of sirup which was found to contain sulphuric acid and sulphate of iron. At that meeting there was a discussion,

and one of the members thought that these adulterations would be found in the low class of sirups; but Dr. Kedzie procured his sirups from the first-class dealers of Lansing and Jackson, and in seventeen specimens, but two were found to be genuine cane sirups: the others were manufactured from starch."

The specimen which caused the sickness of the family in Hudson contained much more than a dram of sulphuric acid, three-fourths of an ounce of lime, and about half a dram of copperas in each gallon. Another specimen contained one and three-fourths drams of sulphuric acid, a considerable quantity of copperas, and an ounce and a half of lime per gallon.

A very convenient test for this sirup is to add a teaspoonful of it to a half cup of clear tea. If the article is spurious, the liquid will assume a dark color, ranging from chocolate color to an inky black, according to the degree of sophistication of the sirup. The best way to avoid the dangers which are attendant upon the use of these poisonous compounds is to discard their use entirely.

Inconsistencies.

It is a very true as well as trite remark that consistency is a rare jewel. In every walk in life, and among all classes of people, we see this truth exemplified. To a person of refined tastes and cultured intellect, few things are more repulsive than the spectacle of an individual whose whole course of life is a series of inconsistent, conflicting, discordant actions. But especially offensive, indeed, almost nauseating, does the scene become when we discover divers irregularities of this sort in the daily life or personal habits of an individual whose pretensions would represent him as much in advance of his fellows in point of consistency of action and obedience to common sense.

Without wishing to give offense to any, we are compelled to say that observation has forced upon us the conviction that a large share of those who call themselves health reformers are occupying precisely the position of the individual last described. While laying claims to more than ordinary care for their own and their neighbors' health, and advocating scrupulous obedience to nature's laws, they are constantly tolerating some of the most unmitigated nuisances, and most potent sources of disease.

For instance, we often meet those who tell us with much complaisancy that they have not

tasted a morsel of fine-flour bread in so many months or years. Of course we do not object to this persistent total abstinence; but in the very act of imparting to us the pleasing information, our friend has disclosed the unpleasant fact that it has been even longer since a tooth brush or dentrifice touched his teeth than since he tasted bolted-flour bread.

Another tells us that a particle of butter has not passed his lips for several years. Of course we congratulate him upon his constancy; but our olfactories prompt us to suggest that a little more frequent use of soft water and soap would be vastly more conducive to his physical health than the denial of his appetite even for such a pernicious article as butter. All kinds of animal fat are very poor articles of diet, but to allow the products of cutaneous excretion to accumulate upon the skin, remaining there to be reabsorbed, thus poisoning the life current—this is an evil tenfold greater than those which arise from the moderate use of butter.

Still another expresses the greatest abhorrence for flesh-eating, and declares that he has for a long time been wholly innocent of devouring the flesh of any animal. He would not pollute his blood with the diseased and loathsome carcass of a dead beast. His tastes have become too refined, his senses too acute to allow him to commit so great a physical transgression as to eat a piece of beefsteak or baked trout. Oh! no; he would not think of thus defiling himself. But follow him to his home; enter his parlor, and smell the musty carpet. For long months it has been accumulating dirt and filth, and now it is sending out offensive gases to be inhaled by every occupant of the room. In a corner of the kitchen sits a large wood box, in which moldy bark, dead worms, stray apple cores, peach skins, deceased mice, and sundry other decaying or decomposable materials have accumulated to the depth of a foot or more, the whole mass fermenting and pervading the whole house with disease-producing vapors. As a powerful reinforcement to the wood box, the uncleaned sink adds to the volume of gaseous poison, while from the drain pipe escapes a continual stream of malaria as potent as ever arose from a stagnant pool. A little further inspection would doubtless disclose still other causes of disease within the doors of the dwelling, all of which are constantly at work to undermine the constitution, generate fevers, and predispose to epidemics and

contagions. A moment's reflection will convince any man that these influences are incomparably greater causes of disease than simple meat-eating. The poisons in the air are taken into the lungs and absorbed directly into the blood. The amount of poison contained in a pound of beef is incomparably less than that which would be inhaled by a few moments' respiration in such a place. We hazard nothing in the statement that a person would actually take into his system less foreign, foul, effete, poisonous matter, by the use of beef or mutton during a whole week than he would by a half day's residence in such a house.

Occasionally we meet an individual who claims to be about as nearly perfect, as regards the observance of the requirements of hygiene, as a man can be. He observes the strictest regularity with respect to diet, never eats between meals, eats but twice a day, eats only the most wholesome food, discards all condiments, never overeats, in short, is a perfect paragon of dietetic regularity. He is also very careful to avoid overwork, never deprives himself of sleep, and secures plenty of recreation and relaxation from business. Carpets, feather beds, and wood boxes, he will not tolerate, and he knows better than to have a cellar under his house. He is also particular to secure good ventilation, especially of his sleeping room, and declares that he has such a draft in his bedroom that his hair is flying about his head all night. Yes; we have seen just such individuals; and they seemed to feel as much self-satisfaction in contemplating their condition of fancied physical purity as ever did any deluded religious fanatic who thought himself spiritually immaculate.

Examine the premises of this model hygienist. What do you find? In ninety-nine cases out of a hundred you will find in close proximity to the house a huge pile of souring, molding wood, from which arise various noxious gases of a deleterious character. If you find a cesspool, it is filled with putrid, seething corruption which is sending into the house, through an untrapped drain pipe, the causes of disease and death in an unceasing stream. If no such questionable convenience is found, the back door will be surrounded with little pools of stinking putridity, the cast out contents of dish pans and wash tubs. Quite likely a swill pail or barrel will be found near the kitchen door, whose reeking contents are constantly sending out the essence of putridity and corruption. A

few rods from the house may appear a heap of stable litter, which day and night pours upon the air enough of sickening, poisonous, disease-producing effluvia to impregnate a whole neighborhood. In addition to all these nuisances, and predominant as a source of uncleanness and disease, will be found the private outbuilding. Most likely it will be found provided with a deep vault in which foul excrement has been for months, or even years, accumulating until the Stygian filth has become absolutely murderous. Death-laden vapors constantly emanate from the spot and find their way into every nook and corner of the premises, giving rise to ague, bilious fevers, dysentery, and like diseases. The earth is also saturated with the liquid poison which percolates through the soil and finds its way into the well, the cistern, and even the cellar, thus contaminating the water as well as the air.

Under such a condition of things, how important to preserve physical health and purity must be the most careful attention to regularity of diet, and sundry other requirements of the hygienic code! A person living in the midst of such surroundings would stand a much better chance for his life if he was removed to some locality where pure air and water could be obtained, even though he utterly disregarded the requirements of hygiene with reference to diet.

But these are only a few of the absurd and ridiculous inconsistencies which any observing person may find among professed health reformers. To speak of all the numerous and gross mistakes which often render so futile the efforts at reform which are made by well-meaning but unphilosophical individuals, would require too much space. If every individual would use his own native common sense as a guide in many of these matters, he could not go far astray. Health reform affords a fine opportunity for the display of tact and ingenuity. The popular idea of this reform must be expanded; people must be taught that it means something more than simply discarding fine-flour bread and meat. Health reform includes all that is good, and noble, and pure; and no person is a true reformer who does not endeavor to conform to this view of the matter.

TRAINING OF BOAT ROWERS.—The system of training adopted for the racing crews of most of the college boating clubs must be very suggestive to those who laugh at hygiene and scoff

at the teachings of dietetic reformers. Besides being daily subjected to a systematic course of training, a most strict system of dietary is enforced. No pork or pastry is allowed to any member of the crew; and coffee, tobacco, and all other stimulants are strictly proscribed. If such a regimen is found essential to enable a boat crew to compete successfully with their opponents, can it be doubted that they are equally efficient as means of fortification against the encroachments of disease, and the ravages of epidemics?

Look out for your Teeth.

THERE are not a few individuals in the world who are either too indolent or too careless to cleanse their teeth sufficiently often to keep them free from dirt. As a natural result, they find them presenting a most unpleasant and unwholesome appearance, and standing as indubitable evidence of their untidiness. Wishing to conceal their shiftlessness, and unwilling to take the necessary trouble to secure cleanliness, these short-sighted individuals resort to the most illegitimate and ultimately ruinous means for removing from their masticators the accumulated filth of months, or even years.

For the accomodation of such persons, money-seeking and unscrupulous men have prepared certain lotions which they put up in nice little bottles, labeled, "Tooth Wash." It is claimed that a single application of one of these compounds will effectually whiten the most dingy teeth, without doing them the slightest injury. A recipe for making a wash of this kind is found in Dr. Chase's Recipe Book now being offered for sale by agents. An article of the same essential character is also being sold by peddlers about the country.

Our friend, Dr. Hawxhurst, a professional dentist with whose writings our readers are already familiar, gives the following description of this villainous compound and its effects:—

"The wash, as it is called, is put up in vials which look attractive. It does in reality whiten the teeth almost as soon as it touches them. The muriatic acid which it contains lays hold upon their mineral salts, and they seem to be at once transformed. A set of old and rusty pegs have become a row of pearls. This whiteness, so coveted, is due to a dislocation of atoms and molecules from their places in the structures of the organ. It is the signal of destruction to the teeth. After using this compound long enough it finally fails to whiten the teeth, and

they take on a softened and decayed look that is appalling to one who has ever enjoyed the blessing of beautiful teeth.

"To test the dangerous character of this tooth-destroying elixir, I threw a sound tooth into the bottom of a bottle obtained of one of these men. In a few minutes (70 minutes), I found the enamel soft enough to be scraped up with the thumb nail, with many other evidences of the terrible decomposition that had been at work. I performed many other tests which need not be described here; it is enough to say that the acid is muriatic, one of the three strongest mineral acids, and that no one who has the slightest desire to preserve his teeth will use it in a single instance."

A Recent Discovery.

SIGNS of progress in the medical world are daily growing more and more abundant. A medical observer of the allopathic persuasion, who writes for the *Scientific American*, has recently been enabled to so far disenthral himself from the serfdom of empiricism and the mysticism of dogmatic assumption as to discover the true cause of erysipelas. He affirms, upon the authority of his own personal experience with the disease, having repeatedly suffered from it, and from observation of the disease in others, that the chief cause is the eating of *animal fat*. In the particular cases he observed, fat fowls, lard, and pork were the dietetic articles furnishing the fat. He invites all who have never had the disease to experiment upon the use of these articles, assuring them that they will be very successful in obtaining as much of the disease as they desire.

It would seem from the fact that this gentleman has suffered repeatedly from erysipelas that he continues to indulge the cause, enjoying his stuffed goose and fried bacon as much as though he knew not that it was productive of one of the most loathsome and annoying diseases. Why cannot old people as well as children learn to keep their fingers out of the fire when they get them badly burned so repeatedly.

WORTH, the dressmaker, was begged by a lady to invent a tasteful walking costume, in which the women could walk with as much comfort and as little trouble as men do in theirs. "I have," he exclaimed, "but you won't wear it. I do not see the slightest objection to women wearing trowsers with tunic, as I have wanted them to. And there is a Persian costume, which is the perfection of beauty and grace."—*Sel.*

GENERAL ARTICLES.

IT NEVER PAYS.

It never pays to fret and growl
 When fortune seems our foe :
 The better bred
 Will push ahead,
 And strike the braver blow.
 For luck is work,
 And those who shirk
 Should not lament their doom,
 But yield the play,
 And clear the way,
 That better men have room.

It never pays to wreck the health
 In drudging after gain ;
 And he is sold
 Who thinks that gold
 Is cheapest bought with pain.
 A humble lot,
 A cosy cot,
 Have tempted even kings ;
 For station high,
 That wealth will buy,
 Not oft contentment brings.

It never pays—a blunt refrain
 Well worthy of a song ;
 For age and youth
 Must learn the truth,
 That nothing pays that's wrong.
 The good and pure
 Alone are sure
 To bring prolonged success,
 While what is right
 In reason's sight
 Is always sure to bless.

A Diseased Mouth a Source of General Disease.

BY DR. D. C. HAWKHURST.

I DESIRE to call your attention to some of the more serious consequences of neglecting the teeth. I have seen many frightful mouths containing decayed roots and blackened fragments of teeth, scattered along the dental arch and interlacing rather than articulating. I have been called upon to treat the neuralgias and wandering pains, the fetor of the breath, the oozing of blood from the gums, the dental abscesses, and both mild and violent inflammations which attend neglect of the teeth, and which often result in serious disease of their sockets, and occasionally involve the maxillary bones and their cavities.

I have seen, during almost every week, cases in which morbid states of the teeth have spread to other parts by means of the numerous sympathies which play between different organs and functions. I have frequently met patients whose general health had been greatly impaired by morbid states of the teeth and adjacent parts; patients who have exhibited great nervous depression, feeble digestion and general prostration, along with an impairment of all the functions, but who have at once grown

better after having appropriate attention given their teeth.

And this experience has led me to look upon the mouth and teeth, and especially the track of the great fifth or dental nerve, as liable, in their morbid states, to arouse severe and protracted diseased action in other parts of the body. This may not take place, but its occurrence is more than probable.

If you are among that fortunate class who have retained perfect teeth and sound nerves, you may regard my statements as too strongly made; and I hope that you may. But if you have had your whole constitution racked by the protracted agonies that attend the slow destruction of the dental arch, your own consciousness will be evidence to you that I am right. You will then be prepared to believe that the breaking up of a fine set of teeth is in many cases the breaking up of a fine constitution.

If you find yourself on the road to this state of things, I must counsel you to arouse yourself and put an end to it. Have every tooth that is worth saving filled at once, or as soon as it can by treatment be put into condition to receive a filling. And then resolutely have every old root, the remains of a tooth, every tooth that you do not expect to retain permanently, extracted. If you have abscesses connected with any of the teeth, diseased gums, or tooth sockets, have everything rendered healthy.

There is no other way for you that will not lead to some bad end. The drain upon vitality which you must suffer, if your gums are tumid with putrid blood, your maxillary bones wasting from abscesses, your alveola ulcerating from tartar, your nervous system constantly excited from disease seated along the course of the fifth pair of nerves, is something fearful to contemplate.

You cannot too promptly seek surgical aid, and thus put your sufferings behind you, after which, you may build up your shattered nerves again and tone up your weakened stomach.

I have met with patients, who, ardently desiring to save their remaining teeth, have had all cavities filled so far as advisable, but who, from dread of the pain, have declined to have diseased and diseasing roots removed. And in many cases, I have foreseen that these roots must exert a protracted influence for evil, not alone upon the general health, but upon the remaining teeth.

If yours is such a case, your dentist will very likely complain to you that he cannot be responsible to you for the safety of such teeth as he has filled, so long as you retain in your mouth those which are a source of constant irritation. He will tell you that an old root may decay its sound companions; that an exposed pulp or nerve may excite so much disease in another pulp in some sound tooth as to cause its death; that fragments of teeth left in the jaws are likely to excite neuralgias, foul the

breath, pollute the saliva, and inflame the soft parts about them. He will tell you that the best way, and the only way, to save your sound teeth, is to have every tooth or root drawn that cannot be permanently preserved.

The Atrocity of Feather Beds.

THE cackling of the goose is said to have saved Rome. The feathers of the same bird are dealing death to America. We are reminded of this as the summer approaches, and the hospitality of rural friends occasionally introduces us to the "feather bed," which has come down an heirloom in the family for five generations. It is a capacious bag, holding some thirty to forty pounds of good, honest geese-feathers, plucked a hundred years ago, and held in high esteem by succeeding generations until it has come into the possession of the present incumbent of the old homestead. Underneath this feather bed is the straw bed, filled annually with clean, sweet, oat straw. This relieves the pressure upon the bed-cords, which are annually tightened at the spring house-cleaning with old-fashioned winch and pin until the tense cord makes music to the stroke of the hand. This feather bed was a tolerable institution in the days of log houses, with the free ventilation of a big fireplace, and rifts in the roof through which the wind whistled and the snow drifted in every winter storm. But now, with tight houses and stoves that heat everything from cellar to garret, the case is altered. No amount of airing and sunlight will permanently redeem the bed from the odor of old feathers, which is anything but agreeable, and the more atrocious effete animal matter that has escaped from the sleepers that have sought repose here for generations past.

Think now of John Giles coming in from his day's work in the field where he has been following the plow or driving the mower or reaper, his body all day long in a vapor bath, to repeat the process in the night watches as he stretches his weary limbs upon this unpatented perspirator. Here he tries to sleep, but wakes often from fitful dreams and tosses as if a fever were raging in his veins. Is it any wonder that he rises from unrefreshing sleep with the early dawn, that he grows lean and cadaverous, and becomes cross and dyspeptic? The poor wife who shares his couch has, possibly, in addition to his discomforts, the care of a nursing child. Is it any wonder that she comes to the morning meal more dead than alive? Is it any wonder that so large a per cent of the inmates of our lunatic asylums come from our farms? The old proverb that "the rest of the laboring man is sweet" needs to be received with several grains of allowance. There is not much sweetness or refreshment on this pile of feathers in the sweltering summer nights. It

is surprising to see how long it takes modern improvements to invade the agricultural districts, even with the help of railroads and newspapers. Hair mattresses and spring-beds are unknown luxuries in many of these districts where the civilization is at least two hundred years old. "The age of homespun," supposed by some of our brilliant writers to have departed fifty years ago, is still continued in unbroken force. Something cool and soft to sleep on and under is still a desideratum in most farm-houses. The apology for feather beds and cotton-quilted comfortables is not poverty, but convenience of manufacture. The feathers are a home product, and a tea-drinking makes the quilts and comfortables. Yet John Giles owns his farm, is out of debt, has a good bank account, owns railroad stock, and could have mattresses, fine linen, and blankets, if he understood their comfort and economy. Where are our advertisers of good beds and bedding?—*Agriculturist*.

Advantages of Vegetable Food.

BY R. F. COTTRELL.

DANIEL J. COBB, of Castile, N. Y., in a work entitled, "The Medical Botanist," says: "It has been ascertained by the experience and observation of a number of scientific men of high standing that a plain vegetable diet is more conducive to health and longevity—more invigorating to the physical and mental energies—than animal food; that animal food is not necessary, even when great physical exertions are required, and is absolutely injurious to those who do not labor; that whatever the quality may be, the quantity should be limited to what nature absolutely requires."

"It is recorded of those who in modern times have lived to the advanced age of 140, 150, 160, and even to upward of 180, that they subsisted on plain, simple, vegetable diet, with but little except cold water as a beverage."

"Laboring men who have adopted vegetable diet universally assert that they possess a greater degree of muscular strength, as well as mental vigor, than when indulging in the use of animal food, are more uniform in their appetite, experience less of the cravings of hunger, and are in a great degree exempt from prevailing diseases. The reason for this is perfectly obvious when we consider that a number of the vegetable productions used as food possess more than twice the amount of nutriment afforded by any kind of meat; and the well-authenticated fact that the blood of him who subsists much on animal food becomes putrid soon after being removed from the circulation, while that drawn from him who subsists exclusively on vegetables remains free from putrefaction for a long time, shows conclusively why

those who subsist on vegetables are more exempt from diseases, either general or local, than those who are under the contaminating influence of animal food."

These statements of the superiority of vegetable over animal food I have no reason to dispute. From my own experience and observation I am satisfied that vegetable food gives more strength to labor than animal food; and that the appetite is more uniform, and that less cravings of hunger are experienced by the vegetarian, I know from my own experience and the testimony of others. I have a good appetite for plain vegetable food twice a day without an exception; but as for the sense of extreme hunger and the "all-gone" feeling that meat-eaters complain of, I have become an entire stranger to them.

And if the statement concerning the blood of meat-eaters and vegetarians is true, it is certain that the liability of the former to disease and sudden death is much greater than that of the latter. Then who would not choose to live upon grains, fruits, and vegetables? As I value life and health, I would not go back to the use of animal food. I prefer my food as it comes from the products of the earth, and not as modified by first being eaten by animals. I have left the flesh-pots in Egypt, that land of darkness, where they properly belong; and I have no desire to return. I do not wish to partake of the nature nor the diseases of the animal creation. There is plenty of cheaper, purer, and more nutritious food.

The Tobacco-Plague.

[WE are happy to extract the following article from the *National Temperance Advocate*, a most efficient worker in the temperance cause, as it evinces an insight into the real cause and cure of that terrible curse, *unnatural stimulation*. There is no essential difference as to the agent employed—stimulation is the great crime.]

The twin of rum is tobacco. Both are poisons which, in doses large and powerful enough, cause stupefaction and death. Against the former the crusade is active and powerful. Opposition to the latter is feeble; many, even among temperance men, make none at all, but prostitute themselves and annoy others by using large quantities of the abominable stuff. The nuisance is becoming very general, amounting to a well-nigh universal tobacco-plague.

We regard the use of tobacco as inimical to the progress and consummation of a true temperance reformation. It would be too much to affirm that all tobacco-users are or will be dram-drinkers or drunkards. But it is not too much to say that it is very rare to find a confirmed drinker of alcoholic liquors who did not

precede or who does not accompany the drinking habit with tobacco. What the track is to the railway train, that is tobacco to alcoholic inebriety. The use of tobacco not only leads thousands to strong drink and to inebriety by inducing an inflamed, diseased condition of the nerves of taste, an unnatural craving, to appease which alcohol is resorted to, but it greatly hinders the reformation of many who, seeing their danger, would gladly abandon their drinking habits. A careful investigation would show conclusively that a very large percentage of the failures to keep the temperance pledge, and of relapses on the part of those who have sought aid in inebriate asylums, are due, primarily, to tobacco.

It is the deliberate testimony of so eminent a physician as Dr. Willard Parker, of this city, that the death-victims of tobacco are even more numerous than those of alcohol. Especially should there be an earnest endeavor to save children from the contamination. It is not uncommon in our metropolitan streets to see boys six or eight years old with cigars in their mouths. Who can doubt the increased risk of an immoral tendency and an unhappy future for such youths? The clergyman who chews or smokes, the church member or the temperance man who cultivates or deals in tobacco, hinders by his practice and example the prevalence and progress of true temperance. The valleys of Connecticut and Virginia, alike, which are given up to the cultivation of the tobacco-plant, are misappropriated, and should be put to better use.

We invoke the help of thoughtful and conscientious men and women everywhere to inaugurate some more effective effort to stay the ravages and stop the progress of the tobacco-plague.

Snow Water.

DR. ———, a physician residing and practicing in a city in Ohio, was called, one night, to attend a patient some distance from the city limits, and found, on arriving, that the sick man was suffering from a violent attack of colic; but on the moment of making a prescription, he found, to his dismay, that he had forgotten to bring his case of medicine, and consequently, was left, as it were, powerless to relieve the suffering man.

Nothing daunted, the physician keeps silent as to his dilemma; and, passing out a moment, he soon appeared again, and now he professionally produces a white powder (snow), which was soon dissolved in water, and left for the patient to take, at regular intervals, during the night.

According to previous promise, the physician appeared again, next morning, with his pill-bags, and found the patient eating breakfast,

and very grateful to the physician for his skillful treatment, and wished for the prescription ; said it worked like a charm. Of course the doctor did not tell him that a little snow had worked the remarkable cure.

JOS. CLARKE.

Cheerfulness vs. Gloominess.

INTELLECTUALLY, we do not have the same tastes and talents, and there is no reason why we should expect our temperaments to be all alike ; but much can be effected by habit and cultivation.

There are some people who seem to prefer darkness to light, and gloom rather than gladness. They can readily turn to the chapter and verse that reads, "sorrow is better than laughter, for by the sadness of the countenance the heart is made better ;" but they could scarcely tell whether in the Bible or almanac are to be found the sayings, "He that is of a merry heart hath a continual feast ;" "Pleasant words are as a honeycomb, sweet to the soul, and health to the bones ;" "A merry heart doeth good like a medicine ;" and for any practical use they are to such, these sayings of the wise man might as well be in the one as in the other. These persons feel confident that Jesse will ever be a "wild, worthless fellow," because he always comes from school whistling, and that Julia will "never make anything" because she often indulges in an audible laugh.

Some are constantly unhappy from the first of January until the last of December, because the weather isn't right. If it is very cold, they are certain the buds on the fruit-trees will be injured ; and if it is warm, and the pond does n't freeze so they can get a supply of ice, they do n't know what they *shall* do next July. In summer, if a shower does n't come every day, they predict drouth and famine ; and if it is rainy, they are sure the corn crop will be a failure, it is so cold and wet. Indoors, it is little *if any* better. The good woman, returning from a visit, finds some one has opened the blinds and raised the curtains, and the full-blown roses and green leaves on the carpet have become several shades lighter in consequence ; and this is not the only consequence as the offender can testify. This woman cannot see why the sun should shine so much of the time ; it has completely ruined six of her very best curtains ; and then, when it comes cloudy and wet, what will be done ! the cellar is so damp and moldy that the butter won't keep. If a child should be so unfortunate as to break a dish, one would suppose from the ado made that it had come in direct ancestral line from the king of England, and was the only one he ever possessed. And so, indoors and out, there is an atmosphere the density of which no philosoph-

ical computation has calculated, but which has often been *felt* by those who were unfortunate enough to come within the precincts of such a home (!).

Some are always on the lookout for aches and pains. They feel pretty well to-day, but they shall be sick in bed to-morrow—they always know, when they feel *so*, just what to expect ; and Robert B. Thomas never predicted eclipses with greater accuracy, for they lie awake all night, dreading the morrow, and conjuring up all manner of doleful consequences arising from this yet-in-the-future unavoidable(!) illness.

Others had a fever once, the last of August, and were so certain there would be a recurrence of the same, every succeeding year, that, in view of the time they must lose, they have ever since done four months' work during June and July, and a little more, accordingly, the first part of the next month, every night counting with sad forboding the intervening days until the twenty-seventh of August. Of course the fever comes regularly.

Some are always telling you their trials and difficulties, and if you feel deeply for them, and try to benefit them by diverting their minds, and turning their thoughts away from themselves, you are at once set down as cold, unappreciative, and unsympathizing.

Some are morally certain hygienic diet and treatment will kill, if persisted in a great length of time. Why? they tried it once themselves, eating nothing for several weeks but graham bread mixed with water and dried in the sun, meanwhile taking a full-bath every morning in water just drawn from the well, and haven't enjoyed good health since ; therefore, meat, spices, gravies, and apothecary medicine must be good.

Some people can truthfully say, when anything of a melancholy nature occurs, "I told you it would be so," for they are always looking on the dark side, and predicting something of the kind. To be sure, they may sometimes make a slight mistake, like the old lady, who, whatever happened, always met her husband with this same comforting assurance. Such things sometimes become a little monotonous, even to men, and he thought he would cure her of the habit, if such it was. One day he rushed into the house exclaiming, "*Wife, the cow has eaten up the grindstone.*" Not a look of surprise was visible as she very complacently remarked, "*I told you it would be so.*"

"Let us gather up the sunbeams,
Lying all along our path ;
Let us keep the wheat and roses,
Casting out the thorns and chaff
Let us find our sweetest comfort
In the blessings of to-day,
With a patient hand removing
All the briars from our way."

Sick-room Hints.

A SICK room should have a pleasant aspect. Light is essential. Blinds and curtains may be provided to screen the eyes too weak to bear full day; but what substitutes make up for the absence of that blessed sunshine without which life languishes? The walls should be of a cheerful tint. If possible, some sort of outdoor glimpse should be visible from the bed or chair where the invalid lies, if it is but the top of a tree and a bit of sky. Eyes which have been traveling for long, dull days over the pattern of the paper-hangings, till each bud and leaf and quirl is familiar and hateful, brighten with pleasure as the blind is raised.

Ah! if nurses, if friends knew how irksome, how positively harmful, is the *sameness* of a sick-room, surely love and skill would devise remedies. If it were only bringing in a blue flower to-day and a pink one to-morrow, hanging a fresh picture to vary the monotony of the wall, or even an old one in a new place, something, anything, it is such infinite relief. Small things and single things suffice. To see many of his surroundings changed at once, confuses an invalid; to have one little novelty at a time, to vary the point of observation, stimulates and cheers. Give him that, and you do more and better than if you filled the apartment with fresh objects.

It is supposed by many that flowers should be carefully kept away from sick people, that they exhaust the air or communicate to it some harmful quality. This may, in a degree, be true of such strong, fragrant blossoms as lilacs, or garden lilies; but of the more delicately scented ones no such effect need be apprehended. A well-aired room will never be made close or unwholesome by a nosegay of roses, mignonette, or violets, and the subtle cheer which they bring with them is infinitely reviving to the depressed spirits.—*Scribner's*.

What Is Respectable Society?

WE heard a man, otherwise intelligent enough, lately sneer at another, "because," said he, "one never meets him in respectable society." The speaker did not mean, however, that the person he affected to look down on was immoral, but merely that his circle of intimates was not composed of the fashionable or rich. This notion of what constitutes respectable society is quite a favorite one with that class of individuals whom Thackeray has so significantly called "snubs." Empty pretense is always making its own characteristics a standard by which it strives to measure the respectability of persons at large. In a community of mere money-gettings, wealth is the test of respectability. Among the proud, narrow-minded, respectability depends on being de-

scended from ancestors who have married their cousins for so many centuries that neither muscles nor brains are left any longer to degenerate descendants. Every conceited fool thinks himself, in like way, the only man really weighty, the only person who is really respectable. But true respectability depends on no such adventitious circumstances. To be respectable is to be worthy of respect; and he most deserves respect who has the most virtue. The humblest man, who bravely does his duty, is more worthy of respect; is more truly respectable, than the covetous millionaire among his money-bags, or the arrogant monarch on his throne. The fine lady who backbites her neighbor is less worthy of respect than an honest washer-woman. The profligate noble, though he may wear a dozen orders in his button-hole, is often not really as respectable as the shoe-black who cleans his boots. That which is called the world, "exalts the one and despises the other;" but it does not make them respectable according to the real meaning of the word. Their respectability is but a shallow sham, as they themselves frequently feel; and those who worship them bow down to a fetich—a thing of feathers and tinsel. The selfish, idle drone who wastes life in his own gratification, and dissipates the fortune of his progeny, is not and cannot be respectable; but the hard-working and self-denying father who wears out his life to bring up his children is, though he be a day-laborer, entitled to distinctive respect. Nothing can make Dives fit to lie on Abraham's bosom, while Lazarus is welcomed there, even with the sores the dogs have licked.—*Sel.*

Thoughts for the Farming Community.

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

SOME may think that I made a strange assertion in my former article. It was this: "Take any family among the farmers, and follow its fortunes. In the second, third, or fourth generation, the children of the richest will be reduced to the condition of renters." By this I do not mean to say that this misfortune will overtake *all* those who own the land which they cultivate. But now some one asks me if it is a misfortune for a farmer to be poor, and not own the land he tills. I will stop and answer your question, my friend, and then I will proceed to my explanation.

To be poor is undoubtedly a *misfortune*, although it is not a disgrace.

Any person who is industrious and economical can earn more than is necessary to supply his daily wants. This should be laid aside, so that it may produce an income to meet the wants of old age, and make provision for those of the coming generation. Hence, when parents leave their children without inheritance,

it shows that they have either been shiftless in earning money, or have squandered their own earnings. Money gives influence; it furnishes the means for intellectual, social, and religious improvement; and it is, for this reason, a misfortune to be poor, and thus either deprived of these advantages, or compelled to accept them from the hands of our more fortunate neighbors. For the farmer, it is doubly a misfortune to be so poor as not to own the land he cultivates. The great advantage the farmer possesses over the mechanic is that he can have a home where he can display his taste in planting gardens and orchards, the fruit of which he may eat fresh from the vines and trees. He may surround himself with all those things which make up the attractions of a permanent home. But if he be poor, and compelled to move from place to place, he has really no home, and must do without those things which contribute to his greatest enjoyment, and even to comfort and health. For this reason, I would say to every farmer, Make it a leading object to own a farm, even if it be a small one. Select a spot where you can be contented to spend your days, and which some one or more of your children may occupy after you are gone. The great advantage of this I will try to make evident in what I am now going to say.

But let us return to the point from which we have wandered. All families owning land will not be reduced to the condition of renters. But, as I said in my previous article, the richest will be reduced to this condition sooner or later. The whole history of the world goes to prove that when any family has become sufficiently wealthy to be above the necessity of labor, then it immediately commences to decline; and, unless bolstered up by special laws of inheritance, its members are soon reduced to poverty. Some families of farmers live for generations in nearly the same condition, owning small tracts of land, and being compelled to work for a subsistence. But just so soon as any member of the family becomes wealthy, then labor is abandoned, the descendants fall into luxurious habits of living, and the family inheritance is soon wasted and squandered.

From what has now been said, I ask this pertinent question for the consideration of the farmers of this country: Is it a misfortune for a family to become so wealthy that labor is no longer necessary? My answer would be, If this wealth be the inevitable cause of future poverty, then it is a grievous misfortune for any family to become rich.

Are riches a blessing or a curse? A blessing, undoubtedly, as wealth furnishes the only means by which man may rise in the scale of being, and promote his own intellectual, moral, and religious advancement. Like all God's good gifts, wealth has been prostituted to minister to the depraved appetites and passions of

human nature, and this is what turns it into a curse.

It is a sad condition of affairs if a man must contrive to keep his family from becoming wealthy in order to preserve them from poverty. And yet, under the present method of things, I can see no other alternative. But I can see light in another direction. The health reform movement, now being agitated in various parts of our country, recommends itself to the farmers as something which will solve the difficulty I have mentioned. How? I will try to answer.

The reason why wealth has been found to be destructive of families is this: It furnishes the means of procuring certain articles called luxuries, and enables men to dispense with labor. That is considered the most desirable condition of life in which one can live without labor, and enjoy these luxuries. Now, this condition is what the farmers almost universally desire. In other words, they desire, as the most worthy object, what proves their utter ruin. Now, as the only rational treatment of drunkenness is to take away the appetite for liquor, so the only remedy for this evil is to remove the cause—a desire for a life of ease, and a lust for injurious luxuries. Let the father and mother of any family commence by teaching their children these principles, embodied in the hygienic system of living, and they will begin at the very root of the whole difficulty. Let them enforce, both by precept and example, such maxims as the following:—

Labor is necessary to health and happiness.

Sickness is unnecessary, and may be avoided by a strict obedience to the laws of health.

The so-called luxuries of wealth are only contrivances to ruin men.

God has given the poor man and the rich man the same food—the productions of the earth in their natural state; and all mixing, spicing, and adulterating of these bounties, is pernicious and wrong.

The more plain and simple our dress, our food, and all our habits of living, the more our well-being is promoted.

All money which can be saved, after we are supplied with the necessities and the comforts of life, should be devoted to the intellectual, moral, and religious advancement of ourselves and of the world.

When these principles once take root in a family, riches will be changed from a curse to one of the greatest of God's good gifts. Then wealth may remain in the same family from generation to generation, conferring untold blessings upon the human family.

I am living on a small farm of four acres. From the products of this, I am enabled to supply myself with all the bounties I could wish for my table. My flour-wheat, oatmeal, and corn meal, I procure from the mill, as I

find it much cheaper to buy than to raise them. But aside from these, I have a great abundance of all the comforts of the table. We have potatoes, beets, parsnips, cabbages, cauliflower, beans, peas, sweet corn, squashes, water melons, musk melons, nutmeg-melons, and cantaloupes. So much for vegetables. Then we have strawberries, raspberries, gooseberries, blackberries, cherries, currants, plums, grapes, pears, apples. By drying and canning these, we can furnish the table with these delicacies at all times of the year. Then, when any of these grow in abundance, we press out the fresh juice, boil it, and bottle it up; and by this means can furnish our friends with the most pleasant beverages, and that without the slightest danger of making them drunkards. What more can any one wish for the table? Were I as rich as Cæsus, I should still continue to feast upon these same bounties of nature. I should never eat swine's flesh, or any of the "broth of abominable things" served up from modern kitchens. If I could not get along without meat, I would supply myself with the choicest pieces of fresh fish, fresh beef, veal, and mutton.

Now, all these things farmers may produce on their own farms, and thus be supplied with all the bounties which they could desire.

The farmer may literally sit under his own vine and fig tree, and enjoy all the good things God has provided for his sustenance and his enjoyment. But he cannot do this unless he owns the land he tills; and thus I would say to every farmer, By all means have a farm of your own.

Cramming.

CRAMMING is not confined to the universities; it is one of the characteristics of the time. Many of the men who contribute to the literature of the age are persistent crammers. Not a few of these are in the habit of using Latin and French quotations—occasionally they go as high as Greek—but it by no means follows that they are all acquainted with these languages. Indeed, when an author is seen to go out of his way to lug in a high-sounding quotation, it may, in some instances, be safely assumed that he knows little, if anything, about the source from which he is drawing supplies. The passion which third-rate scribblers display for using words which belong to other than their mother tongue can only be accounted for by the inherent vanity of human nature. These literary luminaries are in the habit of hunting up their choice flowers of speech with a persistency worthy of a better cause than the aggravation and bewilderment of readers, a large number of whom are entirely innocent of a knowledge of any but their own tongue.

The cram who is of a literary turn of mind

is not so great a bore as the cram who fancies himself an adept at the art of conversation. This individual is everlastingly drawing from his stores of knowledge for your especial benefit. Your observations upon commonplace topics he persistently caps with poetical quotations and passages from celebrated prose writings, which sometimes are of most inordinate length, as well as of most dubious appropriateness. He is brimming over with stale anecdotes and weak jokes, which he carefully collects from a variety of sources, and puts in the chambers of his memory to be used with all convenient dispatch.

He has a talent for "working" conversations with the view of bringing in his attempts at jocularly and wit, which in some instances he is audacious enough to endeavor to persuade you are original. An experienced eye can at once detect him gradually laboring his way to the retailing of one of his efforts of genius, and then bringing it out with undisguised triumph. Sometimes he imagines himself clever at descriptions of scenery, and doses you, *ad nauseum*, with florid accounts—culled from ill-written guide books—of places which he has not seen. It is his desire to know a great deal about everything, and to keep the fact that he does so constantly before your eyes. It is, "further," no uncommon thing for him to skim "deep" subjects, and to talk about them in a manner which is—would he could recognize the fact—conclusive proof of his own ignorance and shallowness. Then he is fond of taking to literary societies and things of the sort, which appear to be fast becoming institutions for the fostering of humbug and shallow pretense, and the encouragement of the art of adulation.

Go where you will, and people will be found assuming a knowledge of that of which they are ignorant, and sustaining their attempts at deception by dosing you with the superficialities with which they have crammed themselves. There is no doubt about the fact that the age is lacking in fiber and healthy vigor, the want of which it endeavors to compensate for by an excess of trickiness. The fact seems to be that it is common for people to covet the result of honest labor, but, at the same time, to grudge the work, and, while endeavoring to get the one, to dispense with the doing of the other.—*Home Journal*.

Hints on House Building.

A PAPER on this subject, read by Edward Roberts, F. S. A., before the Royal Institute of British Architects, closes as follows:—

1. Never allow pervious drains in pervious soils.
2. Never allow a cesspool or drain near a well.

3. Never select gravel as a building site if well-drained clay can be obtained.
4. Never allow drinking water to be drawn from a cistern supplying a water-closet.
5. Never allow waste-pipes to be inserted into water-closet traps.
6. Never allow rain water to run to the ground if it is required above.
7. Never allow water to stand in pipes exposed to frost.
8. Never allow pipes to be fixed so that they cannot empty themselves.
9. Never ventilate except by pipes or tubes; inlets and outlets being of equal size.
10. Never use glazed earthenware pipes for upward flues.
11. Never allow chandeliers to be the exclusive light merely because it has been customary.

The Turkish Bath.

BY W. PERKINS, M. D.

How the idea that disease is an enemy to be fought ever got into the brain, and why it so persistently continues there, is hard to understand. With the tenacity of a leech or a wood-tick, it clings as for life. As certain as one gets sick, something must be done; and that, too, to make him sicker. The idea, at once, is not for peace, but for war; not to cleanse, but to defile; not to relieve of the burden, but to bind another on.

Lucid writers upon hygiene have repeatedly exposed and driven, as we hope, to the moles and bats this folly; but, like Bancho's ghost, it rises again to befog the doctors and worry their patients even unto death.

The contrivance heading our article lives in this fighting nation. Like the old New England deacon, the first article of whose creed was total depravity, "*natur*" must be put down. Should one be too cold, common sense says warm him; not however in an over-heated room of dead air, but by rubbing the limbs and exercising the body in the most natural way, and freely breathing the purest atmosphere. The Turkish bath reverses this simple, natural way. The sick of nearly all classes are invited and cajoled into these most exciting baths. If, as the allopaths practiced years ago, a sweat can be forced, the object is attained, and the bath has certainly done good. Under the drug rule, the poor victim resisted the enemy (sweating powders) forced into his stomach till he sweat; under the Turkish rule, the patient resists the enemy of heated, unhealthy air, till the same consequence ensues. In both cases, injuries are inflicted in the guise of assisting nature, while nature is resisting them the best she can. The drug, under the former rule, was not without a little good in forcing a passage

through the dried, pent-up pores of its subject. In like manner may the hot-air bath wash out a little filth from the pores of the body. As, however, each does its work on the attacking, antagonistic plan, it may be a question as to the choice of evils between the drug and the bath. But for the internal and lingering damage of the poison, the drug, in this contest, might come out ahead.

As I have intimated, the wonder and the mortification come in with our professed hygienists. "If an enemy had done it, I could have borne it;" but to be wounded in the house of our friends is a double tax upon our patience.

Indeed, besides the disappointment—often amounting to grievous surprise—is the conviction that the whole reformation is in hazard. A small hole in the keel of a vessel may sink the craft with all its stores and passengers. A niche, crevasse, in the levee of the Mississippi, unstopped, will soon inundate the land and destroy the crops. So the Turkish-bath principle, as I have shown, bores a hole in the bottom of our hygienic ship, opens a frightful crevasse in our levee against drugs.

To prove this, we need but recur once more to the leading drug principle; which is to cure one disease with another. Blister internally and externally to get up a counteraction and then the disease may be driven out. Heat the air, and thereby heat the patient till his skin is congested with blood, and the sweat flows to cool the surface. Can any one fail to see that this is on the drug system, of taxing nature, *acting upon* the skin inside and out, of doing evil that good may come? As the preternatural process subsides, the reaction follows, and debility ensues as certainly as from any other excitant or stimulus.

The argument from the transient pleasurable sensations of the Turkish subject, is "too thin" to beguile the hygienic logician. But two days ago, a conservative pastor agreed that his brother in the ministry was benefited by the soothing, narcotic influences of the cigar. Likewise, a good old darkey once objected to a permanent cure for his "belly ache;" for, said he, "Massa, he feel so good when he quit hurten." Even Turkey was not thus luxuriated and effeminated, until her days of degeneracy came upon her. The silly baths of Leuk, described by an eminent traveler, expose the folly of the Turkish mode. Catching a vast pool of impure water from "hot springs," scores of subjects lie and float, all together, therein, for hours. "On what principle," says the writer, "cures are effected in these filthy vats, I could not learn. I have a theory that where so many diseases meet and mingle in one swashing fluid, they neutralize each other. It may be that the action is happily explained by a Hibernian bathman in an American water cure, 'You see, sir,' said he, 'that the shock of the water unites

with the electricity of the system and explodes the disease.'"

May we not hope that the time draws nigh when our hygienic physicians will leave all such warlike weapons in the hands of carnal doctors, that the medicine of nature may bring purity, peace and good will throughout all our borders?

Women of the Sandwich Islands.

The following description of the native women of Honolulu is instructive and interesting:—

"The women are erect, wide in the shoulders, and carry their heads like queens. Many of them are truly handsome, wearing their hair falling over their shoulders in curls, and surmounted with little straw hats, garlanded with wreaths of lovely native flowers. They clothe themselves modestly and prettily, wearing the dress to cover neck and arms, and falling loosely from the shoulders to the top of the feet, which are often bare. Not being civilized like us, they have not been enlightened into compressing their ribs with iron and whalebone corsets; nor to disturb and torture their feet with over-tight shoes; nor to put bonnets upon their heads running up into turrets of silk and artificial flowers, and leaving the ears at the mercy of bitter winds; nor to make up forty-five yards of steel wire into cages and fasten themselves within them; nor to carry an extra half yard of dress stuff bravely after them over the pavement through thick and thin. Yes, these women have the advantage of us, for we are not forced by the exigencies of custom, when we come with our long garments upon any impurities of the pathway, to shut our eyes and clench our teeth and rush blindly over them, whereas those Kanaka women, at the sight even of a spot of water, lift their light garments gingerly, and pass over, clean and unsullied from its contact? Can this be barbarism?

"Hygienic Mania" Again.

The death of Miss Mary Tryon, of Youngstown, N. Y., was commented upon in the August REFORMER, and the case presents some phases which it may not be unprofitable further to consider.

The writer of this had been acquainted with this young lady for a number of years, and her case was, to say the least, a very singular one. She was a sincere Christian, and conscientious to a very remarkable degree in everything she did. And repeatedly has she been heard to make the statement that before she ever heard of the hygienic system of living she was in

such bodily conditions as that she could find nothing which she could eat without being followed by severe pain; that upon her first trial of graham gems she found them the only food she could use without suffering; but that she would not restrict herself to the extent she did in diet if she were not compelled to do so. Three sisters younger than herself, and all in fair health when Mary commenced the use of hygienic food, and who lived, measurably, according to the ordinary methods, were laid in their graves before Mary died. Is it stating the "truth, the whole truth, and nothing but the truth," then, when her attending physician, as well as the Rev. Mr. Fassett, conveys to the public the impression that the hygienic system of diet is responsible for Mary's death? Hygienists are often accused of warping facts to make them suit their theory; are they the only persons who have cherished theories which *must*, in some way, be sustained?

Is it not a little remarkable that the autopsy should have been made alone by the attending physician, when there was another of the same school, of many years' acquaintance with the family, in the same place? Was the fact made public in Mr. Fassett's article that the other physician remarked that the medicine given by the attending physician almost always produces congestion of the lungs? Was it stated that, on examination, this condition of the lungs was found clearly to exist? Was the wisdom and learning of the attending physician manifested in the statement that Mary's death was induced from want of blood which flesh-meat alone supplies? If such be the truth, would not one justly wonder where the millions of inhabitants of the lower latitudes obtain their blood, since seldom or never do many of them partake of flesh; or would he not be justly surprised on killing an ox or a sheep, to behold anything bearing the least resemblance to blood?

But, admitting, as the plain, unvarnished truth, what is conveyed in the article of Mr. Fassett, what legitimately follows? Only this, that the sufferer, without any real necessity existing in her case, had so far misapprehended the spirit of the teachings of hygiene as to produce death by slow starvation. Now, is it fairly to be charged that any system is to be held responsible for misapplications of its teachings? Do good, honest, Christian men and women so reason and judge in regard to other matters? It is doubtless acknowledged by the Christian world that our Saviour taught; "If thy right hand offend thee, cut it off and cast it from thee, for it is profitable for thee that one of thy members should perish, and not that thy whole body should be cast into hell," and yet I have known a good, well-meaning, Christian man so construe the teaching of this passage as to cause him to sever, with an ax, nearly the whole of his right hand from his arm, causing him to go-

about a cripple the many remaining years of his life, and never, thereafter, manifesting any interest in religious matters. In the incomparable sermon on the mount, did our Saviour intend to cause acts of such a nature to be done by his disciples?

So in regard to the sin against the Holy Ghost. Many persons have allowed their sensitive apprehensions and fears to be wrought upon to the degree that they really thought themselves to have committed the sin referred to by Christ, and, in too many instances, despondency, insanity, and suicide, have followed. Yet are the teachings of Christ responsible for such perversions of truth? They, doubtless, were the cause of the acts referred to in each case. What follows, then? Shall important truths—truths because of the want of whose promulgation the world is lying in the shadow of disease and suffering and moral and spiritual death—shall these be withheld because, as an incidental result, what appears to us as evil, may, in individual instances, result therefrom? The fact is undeniable that such a presentation and enforcement of truth in any department of our natures as might be necessary for, and adapted to, the average individual, might, in the case of an extremely sensitive nature and conscience, be productive of immediate harm. Shall the claims of religion fail to be presented because, in such presentation, an occasional case of religious insanity shall be the result?

If, in the whole range of man's nature, there is such a thing as *unmixed* good proposed to be placed within his grasp, in this state of existence, that fact I have yet failed to discover. In every organization and teaching having for their object man's well-being in two worlds, there is an incidental evil accompanying. The law of compensation, in this state of existence, certainly demands this, and turn as we may, we cannot absolve ourselves from the law. Is it, then, the dictate of wisdom on our part, because the incidental evil may have been ours, to set ourselves against the great truth which stands over against it? The Bible plainly teaches that "godliness is profitable unto all things, having promise of the life that now is and of that which is to come." If this be the truth of God, is there not certainly something in the comprehension of that truth as pertaining to our life in these bodies, which the Christian world has failed yet to apprehend? Who in the wide world are earnestly and honestly, and it may be stumblingly, seeking to bring to light these all-important truths, save the handful of health reformers? Of an equal number selected from Christian families and those of the "world," how much, gentle reader, as the result of your life-long observation, more secure do you think the Christian household in all that pertains to the life that "now is"?

Think you they would be willing to risk their "chances" as to the "life that is to come," upon differences so slight? Is it not, then, the dictate of wisdom in us all to seek earnestly for the spirit of truth and hold fast to its teachings, even though in individual instances a too strict adherence to the letter may have caused us pain?

The system of hygiene has relation to man's whole nature in all its departments. It not only demands the best food, but also pleasant social surroundings, and freedom from continual conflict, especially in one's own home. If both these cannot be had in any given case, then each must endeavor to choose that evil which to him shall seem the least. Is it to be wondered at that we do not always choose wisely? "Let every man be fully persuaded in his own mind."
R. L. LAMB.

The Infernal Frying-Pan.

MASSACHUSETTS possesses among other valuable property, a State Board of Health. This committee has just published a volume of five hundred and fifty pages, which are as "chuck full o' science" as old Sol Giles. It is very simple and comprehensive science, however, illustrating such matters as "Preventive Medicine and the Doctor of the Future," "Duties of Local Wards," "The Health of Farmers," "The Condition of Rivers," "School Hygiene," "Cerebro-spinal Meningitis."

The paper, entitled, *The Health of Farmers*, is full of suggestions for other classes of hard working men and women. The average age of Massachusetts farmers reaches sixty-five years, which is fourteen years higher than all other vocations. But the wives and children of farmers not only die young, but are far too often delicate and diseased. Physicians all over the State have furnished the essayists with careful statistics. Almost all these doctors assert that farmers' wives are overworked, and many of them declare that the children as well are prematurely exhausted by labor. But the fruitful cause of the dyspepsia, erysipelas, fevers, and consumption, which drag so many women into the grave, is affirmed to be improper diet. The "men-folks," working out of doors day after day, bathed in health-giving sunshine, breathing tonic oxygen, sloughing off impurities of the blood through free perspiration, find a partial antidote to their perpetual poisoning, and with more or less vigor carry their burden of mortality to a late-found grave. Even they, however, do not reach the three-score years and ten of allotted time, much less, "by reason of strength," attain fourscore.

But the women live in-doors, in sunless rooms, inclosed by walls, saturated, perhaps, with the exhalations of years of uncleanness, sleeping on feathers in unventilated chambers,

working from morning till night, lifting weights too heavy for them, heated to fever in the steaming kitchen, chilled to freezing in the open wood-shed, and, above all, eating when utterly tired out, rank, rich food, at which an ostrich might hesitate. Two or three years ago, in a spirit of helpfulness, we asked our subscribers to send us a general bill of fare for one week of their comfortable, home tables. We believed that many women, at their wits' end to devise new and inexpensive dishes, would find suggestions in their unknown neighbors' ways of managing these constant perplexities. The hundreds of courteous and intelligent replies received disclosed the appalling fact that the basic idea of the larder, so to speak, the unailing manna in the wilderness, of uninventiveness, the expedient of haste and apparent choice of leisure, was fried, salt pork. Eight out of every ten housekeepers used it every week. Many used it every day, or every two days. Doughnuts, fried potatoes, fried steak, fried cake, fried ham, were frequent offerings to the spirit of home comfort. In short, throughout the length and breadth of the land, that instrument of woe which Dr. Morse calls "the infernal frying-pan" seems to be an ugly sort of Circe's cup, subjugating whoever tastes its contents.

Now, frying is a method of cooking which has simply inglorious ease to recommend it. It disengages a fatty acid which the meekest substance rebels against, and the humblest blood refuses to incorporate in healthful union. It touches and makes indigestible the tenderest fiber subjected to its ravages, and, therefore, while such food satisfies hunger, it does not repair the wastes of the body. A continuance in the eating of fried viands invites dyspepsia, nervous irritability, weakness of body, perversity of spirit, and domestic infelicities; indeed, it might almost be said that when the frying-pan comes in at the door, love flies out at the window.

A distinguished preacher has lately delivered a lecture on the "Wastes and Burdens of Life." Among these, he might well have numbered the patent-medicine iniquity. The annual sum squandered on nostrums would go far to pay the interest on the national debt. The misery they entail is a perpetual burden to the wretched flesh which has incurred it. No intelligent person is guiltless who uses patent medicines. The diseases they pretend to cure are the result of ignorant or willful sins of diet or bodily habit. If an American farmer's or mechanic's wife does not know, to-day, that unwholesome food is poison, and that rich, greasy, fried food is unwholesome, she is inexcusable for that ignorance. If she does know it, and continues in her offense to save time or labor or expense, she is guilty of slow poisoning.

* * * * *

The public health is a matter of grave, public concern; but the public health is made up of the private health of every household. And women will be the most effective citizens and upholders of the commonwealth if they determine that only wholesome food shall exist within their domain. Doctor Adams, who has so carefully studied the subject in Massachusetts, evidently believes that the first step in reform would be the formation of Anti-frying-pan Leagues. And we are inclined to agree with him.—*Hearth and Home*.

Advice Gratis.

[THE following is extracted from the "Autobiography of John B. Gough;" and we think it worthy of consideration, especially in respect to remedies for hoarseness so much recommended to public speakers.—R. F. C.]

During all this time, my health was good, with the exception of continual colds; and, as a preventive, I permitted my beard to grow, and the beard has so encroached, and my dislike to shaving so increased, that I have not used a razor on my face for nearly three years. It was a work of time to come to it; but I shall probably continue as I am, and discard the shaving apparatus entirely.

In speaking at Leslie, in a large new factory building, before the machinery was brought in, I so overdid, under the pressure of a heavy cold, that I could not speak loud the next morning, and was compelled to postpone my engagements, and return to Edinburgh, when I sent for Prof. Miller—who was, by the way, my dear and honored friend. After an examination, his prescription was that I should not attempt to speak above a low whisper till he gave me permission. I went whispering for five days. Every morning he would come in and chat with me, and many a hearty laugh I had at his rich, genuine wit and humor; but on the fifth morning he came in, and said: "Now I take off the embargo from ye; speak out, man; what are ye whispering for?" and I found my voice as clear as a bell.

If I might be permitted to offer advice, after twenty-six years' experience in public speaking, I would say to all who are thus engaged, Avoid all nostrums for the throat. They may give temporary relief in certain cases, such as hoarseness, or stimulating the throat to moisture when feverish. I have tried them occasionally, and found a momentary relief; but I sincerely believe they are injurious, when used continually. I have heard speakers say they are never without something of the kind; the mischief lies just there,—after using them freely for a time, they become a necessity, even when they are doing a permanent injury. If the voice becomes hoarse, and the throat dry and husky,

try cold water gargling; or dash cold water on the throat and back of the ears three or four times in the day, and after speaking; and if that does not relieve, do as I did—rest till the voice recovers its tone; and if the throat is not diseased, the remedy will not fail. . . . I make this statement, as the throat is the organ most important to the public speaker, and I give my experience for just what it is worth.

The Relations of Hygiene to Practical Medicine.*

BY PROF. JARVIS S. WRIGHT, M. D.

GENTLEMEN: In coming to these halls to pursue the study of your profession, I recommend you to lay aside all ideas of exclusive systems of medicine, for such ideas will lead you from the high aims and objects of your life-work. Bring with you patience, perseverance, industry, and devotion, for you have embarked on a long, a difficult, and a perilous voyage. Cultivate your senses, your judgments, and your hearts, that your education may attain its full vigor and usefulness when coming responsibilities shall rest upon you; and never forget that the highest professional ambition is truth in science and fidelity in art. In this way, and under this spirit, you will be better able to comprehend that most abstruse science—*rational medicine*, and to master that most difficult art—*practical medicine*. And being masters of the healing art, you can unveil the principles of sanitary science and, by the application of it, exalt your professional work to the highest degree of excellence. And among the multitude of topics that suggest themselves as appropriate to this occasion, I know of none having a more profound interest to the profession and the public than the *relations of hygiene to practical medicine*.

Hygiene relates to the means of preserving health, and practical medicine relates to the cure of disease. One is healing, and the other is prevention. If an ounce of prevention is worth a pound of cure, then hygiene is of more value than practical medicine. Do not understand me to underrate practical medicine, for if a man will not allow you to ventilate his house, arrange his dietary, and drain his premises, when he is well, it does not follow that you should not know what to do for him when he gets sick.

First of all, then, let us have the clearest possible conception of the nature of disease; for such conception, and the knowledge that it brings, will throw a flood of light on the subject of hygiene. And let us rise to this con-

ception by familiar and well-understood terms of comparison.

How, for example, did the dram-drinker get steatosis or sclerosis of the liver? That is, how did his liver become a mass of fat, or how did his liver become hard and "nobby"—like a pile of nutmegs? Alcohol, in one form or another, was the cause, and a "gin-drinker's liver" was the effect—a definitive disease, one that you will often be called upon to treat, and one that you will sometimes have the opportunity to prevent.

Suppose you were to give a man one drop of croton oil three times a day. It would not be very long before he would fall into a condition of collapse. Now put this collapse side by side with the collapse of cholera, and mark the very great resemblance. Yet one is called a disease and the other is called a poisoning.

Administer mercury to a healthy man from day to day, and destroy the fibrin, the albumen, and the corpuscles of his blood; give him a sore mouth, and an eruption on his skin. This is called the physiological action of a medicine. It seems to me that this is just as much a disease as syphilis.

Let the heat-ray fall upon the capillaries, and they dilate; let the light-ray fall upon the eye, and the pupil contracts. So opium congests the capillaries and contracts the pupil. The burning sun of summer may strike one down in the midst of life; so may the electric fire from the rain cloud; so opium, and so, too, may the malignant emanations of a swamp. But malignant malarial fever, as you all know, is called a disease; and can we not apply the term "disease" to "sun-stroke," "lightning-stroke," and "opium-poisoning?"

One septic poison will cause an eruptive fever, another will cause puerperal fever, another will cause typhus fever, and another will cause typhoid fever. A fever is a disease; but we admit it to be a "poisoning," by saying that a septic poison is the potential cause.

A blow upon the head may cause a "solution of continuity" of the scalp, fracture the skull, and concuss the brain. As the modern physical philosopher would say, the molecular motion of the muscles of the arm is converted into "mass motion," which is again converted into molecular motion in the convolutions of the brain, which receives a *shock*. Inflammation follows with a change of *structure* and *function*.

Disease is, therefore, a departure from the normal structure and the normal function, caused by some disturbing force. I say both function and structure, because, in our present state of knowledge, we divide disease into *organic* and *functional*. Of course, when the structure has undergone change, there is a change of function. And I am perfectly willing to admit, with Trousseau, that every functional disease depends on change of structure. Hence, when our methods of investigation have become per-

* Introductory Address to the Class of Long Island College Hospital, March 5, 1874.

fect, it will, no doubt, be found *that all disease is organic.*

The force that vibrates in the sunbeam; the force that falls in the raindrop; the force that shivers in the falling leaf; the force that ebbs and flows the ocean-tide; the force that the decaying vegetable liberates; the force that builds the oak and fashions the lily; the force that "incepts" the germ of cholera on the Ganges; the force that nature so wonderfully stores up in opium; and the force that is born of hope, joy, or fear, may lay hold of the elements of man's body, and drop them into dust again.

Let me now call your attention to some of the causes that operate to disturb the health of individuals and communities—to such disturbing forces and influences as fall more properly in the province of hygiene, and which, in our present state of knowledge, are more or less preventable.

One of the most noticeable health-breaking factors is *bad ventilation.* The savage makes poles into a hut, in the form of a truncated cone. He leaves an opening in one side for himself and fresh air to enter. He leaves another opening in the top for the exit of impure air and the smoke of his fire. Our primitive people built chimneys with open fireplaces in their log houses. How simple, how perfect, to warm and to ventilate! But the evolved savage—the citizen—builds his house with four square walls, and leaves a door for the occupant to go in and out. There are windows, to be sure; but the curtains and the blinds bar the entrance of the sunlight. The citizen puts a *seamed* iron box in his cellar, builds a brick box around it, and deadly gases are drawn from the iron box, where the fire burns, into the brick box, whence superheated air rises through registers into the rooms above, carrying sulphurous acid, carbonic oxide, and carbonic acid. And he makes no registers in the side walls to let out the contaminated air! Go with me into that brown stone front: You might imagine Dante's inscription written over the door, *Who enters here must leave hope behind.* It may be that a merchant lives there; it may be that a doctor lives there; the suffocating products of combustion and respiration will drive us out in unseemly haste. This is no unfair statement; it is, indeed, too true. The merchant can feel the pulse of Wall street, and the doctor can feel the pulse of his patient, but they never give a moment's thought to the air-pulse that brings from the furnace both heat and death. Our business men, and doctors, too, go into the country and imitate the savage to gain the luxury of simple and robust health, and I have more than once saved the life of infancy and of age by letting the sunlight into the sick-room, excluding furnace-gas, stopping the leaks of gas-pipes, giving proper nourishment, and throwing medicine to the dogs. And, believe me, you

can do the same thing. Do you not know that a candle under a bell-glass will go out in a short time in the products of its own combustion? The *homo* will just as surely "go out" under like conditions.

The subject of clothing stands by the side of that of ventilation. The clothes we wear constitute a kind of peripatetic house. The birds of the air and the beasts of the field have an annual or a perennial dress. Man puts his dress on and off morning and evening. Why clothe animals and men? To protect, to warm, and to ventilate. What a net-work is made up by the sweat-pores covering the whole body. Occlude absolutely the sweat-pores by disease or with varnish, and death will supervene. You might as well stop digestion as stop cutaneous transpiration.

Textile fabrics of material from nature's loom are experimentally the best for protection, for warming, and for ventilation. By such means we put a kind of artificial lung on the body over the sweat-pores. The textural interspaces contain a "residual air," which is kept nearly at the temperature of the body, and which slowly and evenly warms the constant afflux of cool, fresh air, while the deleterious vapors uniformly go out by diffusion. That is, therefore, the best clothing which best supplements the function of the skin.

I have a word to say in regard to the clothing of the young. And why do I say it? In order that you may be forewarned and equipped for a crusade against a stronghold of ignorance and superstition. I make a plea for the innocent and the helpless who—such of them as survive—will some day be our men and women. Who clothe the young? It is done under the guide of maternity. How is it done? The legs are bare, the arms are naked, the neck and upper part of the chest are exposed, scanty clothing is put on the *body*, and that is all. Why so? Would you believe it? It is done to *harden* the little ones, to give them good constitutions! How cruel, how sad, how touching, and how lamentable may be the result! The mother means this for good. But let her dress herself as she does her infant; let her give it a fair trial; depend on it, the trial will not last long. Will you dissipate on the winter air the warmth that God has provided for developing your child into the full vigor of manhood or womanhood? Will you imitate that poor mother, who gave her new-born infant a daily snow-bath? The gods had compassion on her tender babe and took it away. I will not say that she was guilty of infanticide. I think, however, it is proper to say there has been, during the last few years, some improvement in the clothing of the young.

Some facts of importance may be mentioned about food and drink. The food we eat and the drink we imbibe are transformed into the

brawny arm that toils; into the brain that thinks; and into the heart that pulsates. Is it, therefore, an indifferent thing to think of what we shall eat and drink? We have not the mysterious selective power of animals, which, magnet-like, draws them to their proper food. We must, in our experience, choose what is good for us, provided we know. To choose what is good to eat and drink, is a matter of hygiene. To choose what is not good to eat and drink, is to fall into the hands of practical medicine. Chalk in sugar, dough-beans in coffee, sulphuric acid in vinegar, and excrement in tea, are examples of health-breaking factors. For instance, twenty samples of tea were examined recently in London, and only one found pure. The nineteen other samples were sent to the United States where they will find plenty of purchasers and consumers. Hence, it appears that hygiene is making progress in England, while, in the United States the prospect is yet good for practical medicine. And does it not make some difference who it is that shortens human life? For the tradesman, who intentionally adulterates food, has immunity, fortune, and social position, while the physician or apothecary, who, by accident, makes a mistake, is broken on the social wheel, and ruined.

Out of the question of food grows the chemistry of the kitchen. In the language of modern science, the proper molecular motion is given to food in the fire of the kitchen, and it vibrates in unison with the feelings and wants of the inner man. And, hence, a sound mind vibrates in a sound body. But, whether the molecules vibrate or not, let the kitchen be watched as the doctor watches his patient, as a broker watches the stock market, for eternal vigilance in the kitchen is the price of safety to the individual, the community, and the nation.

The appeal that went up from yellow-fever-stricken Shreveport penetrated to the remotest parts of the Union, and was answered by a shower of gold. The people will give millions for charity, but not one cent for sanitary education. Heaps of garbage, filth, mire, and slime, were rotting and festering in the streets of Shreveport under the rays of a torrid sun, because the people were ignorant of hygiene. Had they been wise in sanitary science, their streets would have been swept and garnished, and practical medicine would have been busy with its ordinary routine. Who cares how much employment hygiene keeps from practical medicine? Certainly not the doctor, for, in the hour of peril, the doctor will stand at his post of duty, and if need be, die there. Practical medicine find fault with hygiene for a benefaction that is kindred to its own good work! He is no doctor who does not wish for hygiene a "God-speed."

Hygiene has a wide circle of duties to perform: The sewer of Brooklyn lies under the

streets; it is the receptacle of all manner of filth and uncleanness, and it disgorges its contents through its hundred outlets into the river and bay. Let Victor Hugo describe its contents: "These heaps of garbage at the corners of the stone blocks, these tumbrels of mire jolting through the streets at night, these horrid scavengers' carts, these fetid streams of subterranean slime which the pavement hides from you, do you know what all this is? It is the flowering meadow; it is the green grass; it is marjoram, and thyme, and sage; it is game; it is cattle; it is the satisfied low of huge oxen at evening; it is perfumed hay; it is golden corn; it is bread on your table; it is warm blood in your veins; it is joy; it is health; it is life. Thus wills that mysterious creation which is transformation on earth and transfiguration in Heaven."*

From this huge subterranean intestine a diverticulum goes off into almost every house. The kitchen, the dining-room, the parlor, and the bedroom, are separated from its pestilential vapors only by an insignificant water-trap, through which disease may come and do its work silently and well.

Do you call this hygiene? I call it a sewer, and sewage, and typhoid fever, and cholera infantum, and "epizootics," and short life, and plague and death. Hygiene preserves health, it prevents disease; it is the daughter of practical medicine, and she learned her trade of her mother. Hygiene works at one end of the furrow and practical medicine works at the other end. This spurious hygiene which puts a sewer under the city, is the child of expediency and ignorance. Away with it, and give us the hygiene that makes twice "blessed" by removing the cause of disease and converting it in the crucible of nature into the elements of life.

You will now begin to comprehend the meaning and the value of hygiene. It teaches us how to use the means of preserving health—that is, it is the science and the art of preventing disease. It teaches us how to bring pure air into our houses, and how to expel impure air; it teaches us how to warm our houses in winter and keep them cool in summer; it teaches us how to clothe ourselves and our children; it teaches us to buy pure food and cook it scientifically; it teaches us how to enrich the plain that the plain may nourish us; it teaches us how to prevent disease and so prolong human life, and immeasurably increase the sum of human happiness; it teaches us how to dispense with medicines; it teaches us how to add millions to our country's wealth, and enhance, apparently, without limit, her material prosperity; and I have no doubt that hygiene will find ways of preventing the unspeakable calamities which flow from the "social evil." It

*The Sanitarian, February No., p. 507.

may be that the contaminated, like the lepers of old, will be excluded from society by an impenetrable wall of law and order.

Who shall keep the keepers? 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.

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. And yet all the sanitary science that works well has been taught in our medical schools. But the rays of sanitary light are still very diffuse, a few rays coming from each department of medical instruction. Physiology is the science of function; it teaches us that food, drink, air, light, heat, and electricity, are needful to the body; it teaches us that osmosis, cohesion, adhesion, and chemism, are co-workers to build up our daily life; it teaches us that sensation, thought, volition, and motion, are manifested through the nerves, and inferentially it teaches us that the abnormal use of our organs eventuates in disease. Hence it follows that the proper use of our different organs constitutes the substance of hygiene. Chemistry teaches us the atomic, or volumetric, constitution of bodies; it disarticulates the molecules of both organic and inorganic matter; it teaches the student the nature and use of disinfectants; it enables us to turn aside the aggressive forces of deleterious gases and of germinal matters by allowing them to expend their energies on ozone, chlorine, carbolic acid, and sulphurous acid. Chemistry teaches us how to permit the elements to war with each other, that they may have pity on man, who more and more learns how to overcome the elements and convert them into health-giving factors.

Prophylactics constitute the "van-guard" of therapeutics. A knowledge of prophylactics enables us to interpose a shield against an aggressive morbid force, and thus sometimes to prevent a hand to hand conflict with disease.

The obstetrician is the sanitarian of the cradle and of maternity. He heralds the advent of the "little stranger," and watches over the function that invests the invisible with the form divine. His office, *per se*, is the prevention of

disease, and when disease supervenes he is no longer the obstetrician,—but the medical practitioner.

Surgery encounters the sanitary question at every step. Fresh bleeding surfaces, and wounds healing or sloughing, are so many rich fields for germinal matter to fall on and grow in,—are so many planes where the vital force has been depressed, and has for the time being lost its ability to resist the influence of degrading forces.

The curability of disease bears a constant relation to hygiene. The poor man with iron constitution goes down in sickness, when the rich man rises up to health again. Could you see the small unventilated tenement where the poor man lives, and where the sunlight never comes, you would not marvel. And I often think it so strange that men and corporations will continue to use their money in building up such damaging abodes for those who "toil and only toil."

These diffuse sanitary rays make a kind of twilight. And the question is now being asked, would it not be a wise thing to concentrate these scattered rays into one bright beam, coming from a sanitary chair, giving light to the medical profession, who could, in turn, instruct the people. And then the profession of medicine would, indeed, merit the name of being a liberal profession.

The medical schools make a legion of doctors every year; some are qualified, and some are not. The standard of medical examinations is not high enough. Give the diploma to an unqualified man and it becomes cheap. Of course, the qualified cannot place a high value on cheap degrees. The whole thing resolves itself into sound teaching and proper qualification. The wise and proper management of the green-room would lie at the foundation of sanitary science, and would constitute the highest "stroke" of sanitary art.

What hope is there for hygiene in this country? Will it succeed? Can it be planted among the people? And will it grow and flourish? In my opinion, hygiene has a grand future in this country; I will tell you why I think so. The American youth—and especially those who come here to study medicine—have a practical turn of mind; they do not believe much in theories—they believe in the useful first, and after that, the beautiful. . . . Now, I hold that this practical turn of mind is the best kind of soil for the cultivation of sanitary science. Let the seed be planted there—it will take root and grow, and it will be perennial; the seed will be scattered over the length and breadth of the land, and the harvest will abound more and more; the calamities that befell Memphis and Shreveport will not occur again; the beauty and healthfulness of our rivers will not be marred by dead animals, by the

refuse of factories, and by sewage; there will be more to live for, and life will be more desirable; there will be less sickness and less need of medicine. Hygiene will be invited to come to our banquets; she will be a perennial guest in our homes; she will be the presiding genius of our hospitals; she will adorn our temples; she will be sculptured in marble and wrought in bronze in our public parks; and she will be raised high above medicine, and enthroned in the Capitol of the nation with Liberty.—
Abridged from the Sanitarian.

Judging from Appearance.

BY J. H. WAGGONER.

WHILE sitting at the table of a friend, not long since, I called his attention to the subject of graham bread, and he remarked that he had tried it but could not use it, as it gave him the dyspepsia!

The "mark of wonder and surprise" will not be considered out of place by those who know that graham bread is both a preventive of, and antidote for, dyspepsia. I believe the statement is true, that if there were no bolts in the land, there would be no dyspepsia. I have never known a case of dyspepsia, however obstinate, that would not yield to a persistent use of graham bread, unless the habits were very bad in other respects. And therefore I do not believe it would be induced if graham bread were uniformly used.

And yet there is a show of truth in the statement; just enough to deceive a person who does not take the trouble to investigate the matter thoroughly.

It is a fact that the system may be long subject to health-destroying influences, and even become filled with the germs of disease, and the person not be aware of it. Men have been known to live for a long time in the very foulest atmosphere, and apparently enjoy good health, until they changed to a purer atmosphere, when they were immediately prostrated with sickness. In such cases, the system becomes sluggish; the life is of a low type; the animal alone seems to exist, and the mental power is almost gone. The system has not power to rise above surrounding influences, and so accommodates itself to them the best it can as long as they can be endured. When these pernicious influences are removed, then the system begins to exert itself to put off the unhealthy conditions, and these efforts are often the first admonition the person has that such conditions exist.

I have known of people living for years in the most malarious districts in the West, in their early settlement, and escape all bilious diseases. While others were shaking with the ague, they boasted of constant good health.

But on returning to their native New England hills, where the ague was never known to exist, they would be taken with the "shakes" directly.

Now it would not do to argue from such facts that the hills of New England were worse for ague than the river bottoms of Illinois. Everybody knows to the contrary; every one would readily judge that the system there first found favorable opportunity to throw off the unhealthy conditions which it had long been taking on in a bilious district. Had those persons continued in the West, they would soon have been prostrated by disease in a more malignant, and, perhaps, fatal, form. Without understanding the reason, people in the West judge from observation that they who were soonest taken down with the diseases peculiar to the country, stood the best chance for prolonged life; while they who held out for a long time, were subject to sickness of greater fatality. They seemed literally to store up malaria till they utterly broke down with the load.

Graham bread never induces dyspepsia. It may reveal its presence, but it does not cause it. He who, removing from the West to New England, is there prostrated with the ague, would be deemed almost insane if he should return to the West to get rid of it! It is well understood that if it was not in his system, it would never show itself in the climate of those hills. And just so unwise is he who returns to indigestible bread of bolted flour to avoid dyspepsia, because a temporary use of good, digestible bread proves that he is dyspeptic. The system must undergo a change to throw it off, and the more actively the process is carried on, the stronger will the symptoms be developed. Sometimes the process of recuperation is carried on so slowly that the patient does not realize the change only as time reveals increased good health.

A marked evidence of the suffering of a person who is passing from a low to a higher state of life and health is found in the terrible feelings of those who break off from the habit of using tobacco. It seems paradoxical to the unreasoning mind that the evil effects of its use are first felt when its use is discontinued. But such is often the case, and the reasons are well understood.

Do not be afraid of graham bread, nor of anything else which reason and long observation have proved are good for health. Do right, and trust for results. They will always prove satisfactory when we cheerfully follow the right because it is right.

THE cultivation of a genial, charitable, benevolent spirit will not injure any of us, and will certainly benefit the community in which we live, and add constantly to the number of our friends.

Evils of Tobacco-Using.—No. 2.

In the previous article we considered at some length the physical effects of tobacco-using, or how tobacco acts, or, more properly, is acted upon by the system. We are now more fully prepared to understand how and why the various evils arising from the use of tobacco are severally produced. We feel no hesitation in making, without qualification, the statement that *tobacco ruins a man PHYSICALLY, MENTALLY, and MORALLY, and is a SOCIAL NUISANCE and a NATIONAL CURSE.* To make good this claim we shall present a series of well-attested facts, arranging them under the following separate heads: *Physical Evils, Mental Evils, Moral Evils, Social Evils, and Political Evils.*

PHYSICAL EVILS.

1. *Tobacco is a deadly poison.*

In the preceding article, a few observations were made respecting the poisonous character of tobacco; under this head a few facts then cited are again referred to.

One hundred ounces of Virginia tobacco contain *seven ounces* of *nicotine*, a poisonous oil whose deadly properties are second to no other known substance but *Prussic acid*. A single drop placed on a cat's tongue produces death in two minutes! The vapor alone will kill a large cat. Many cases of death have occurred as the result of applying to a cut or bruise a little of this oil from an old pipe. Its application to the skin as an ointment has frequently been fatal. It is to the presence of this terrible poison that all the virtues of tobacco are due; and it has been estimated that the amount of poison contained in the annual crop of tobacco is sufficient to exterminate all animal life from the globe if rightly administered. The reason why tobacco-users do not die immediately is because they do not take the poison in fatal doses. But it is no less sure in its results. Like opium, arsenic, strychnine, corrosive sublimate, and other poisons, it may be tolerated in gradually increasing doses, for many years; but its sure and awful consequences come at last, and, indeed, are manifested all along to him who has learned to discern them. A single cigar contains poison sufficient to kill two men, if concentrated.

Hundreds of cases of fatal poisoning by tobacco might be cited from numerous medical works. Only a few years ago, a homicide was committed in England, by means of nicotine, the murderer crowding a few drops of the oil into the mouth of his victim. A Turkish slave once killed his master by dropping into his ear, while he was sleeping, a few drops of the oil from his pipe.

2. *Tobacco-using is an unnatural habit.*

There is not one man in fifty who cannot remember the peculiar effect of the first quid of

tobacco he placed in his mouth, or the first pipe he essayed to smoke; and we hazard nothing in premising that the remembrance of that experience recalls anything but pleasant sensations. When a lad makes his first attempt at tobacco-poisoning, what do we observe? A deathly pallor overspreads his face; his head swims; a feeling of indescribable agony seizes upon him; he reels, perhaps falls, and sheepishly drags himself away into some secluded nook where he can enjoy the beauties of tobacco unobserved and unmolested, meanwhile beguiling the agonizing hours with the amusing pastime of rolling on the grass, or the more serviceable one of tickling his throat with a feather to induce his stomach to turn out what he has himself put in.

How would it be possible for nature to express in more forcible terms her repugnance to the filthy weed? Does she not say, in language unmistakable, I have no use for tobacco? there is no room for it in my dominion? it interferes with my operations? do not insult me with the disgusting, poisonous stuff?

Very rarely, indeed, can a man be found who did not have to *learn to use tobacco*. This alone is sufficient evidence of its anti-vital, unnatural character; and whatever is unnatural, that is, repugnant to natural, unperverted tastes, is evidently a thing unfit to minister to the wants of the human body.

3. *Tobacco-using is a great cause of intemperance.*

The most observant workers in the temperance cause tell us that they seldom find a whisky drinker who is not also addicted to the use of tobacco. The significance of this fact is apparent. Tobacco is stimulating. At first, a small quantity will produce the desired effect. Pretty soon, as the system becomes accustomed to its presence so that it is in a measure tolerated, a larger quid or an extra cigar is found to be necessary. After a time, it is found very difficult with any amount of tobacco to obtain that degree of stimulation necessary to make the individual feel natural, and so some form of alcohol is resorted to, and the concluding step toward drunkenness is taken. Yes; tobacco-using is the broad road which leads to drunkenness; and it is a failure to recognize this fact which has been one of the chief agents in rendering so futile the attempts of our well-meaning and energetic temperance reformers in combating the great foe of society and religion—intemperance. Thousands of men have been won from the paths of drunkenness and restored to society as useful members; but a few months later found them the same infatuated victims of strong drink as formerly. Why did they fall? The insatiable thirst for the fiery draught, the maddening desire for stimulation, was kept alive by the use of *tobacco*, and they became an easy prey to their besetting sin.

Drunkenness can never be cured until tobacco-using is eradicated from the land.

4. *Tobacco intoxicates.*

Alcohol is not the only agent which will produce intoxication. Inebriation is as plainly the consequence of tobacco-using as of whisky-drinking. To be drunk, it is not essential that a person should be wholly delirious or insensible. There are all degrees of drunkenness; and when a man takes into his system any given quantity of either tobacco or alcohol, he is drunk, just in proportion to the dose. A man is just as truly drunk when he has taken only sufficient tobacco to produce a feeling of pleasant exhilaration as when he has taken so much whisky that he will courtsey to a lamp post, and go to bed in the gutter. The difference is only in degree. No man can be wholly himself—entirely sane, we may say, while under the influence of any narcotic or stimulant.

5. *Tobacco-using a greater evil than whisky-drinking.*

So said the presiding officer at a great temperance convention in New York, and so will all agree who recognize the true relation existing between tobacco and alcohol. Why do we make the astounding claim that the use of the narcotic weed is an evil even surpassing that stupendous and most deplorable vice—intemperance? We answer,

1. Tobacco *kills* more than alcohol, as can be proven by good medical authority.

2. Tobacco-using, as already shown, is one of the chief causes of intemperance.

3. To reform a tobacco-user is a task doubly greater than the reformation of a drunkard.

Tobacco is not so violent in its effects as is alcohol; but it is far more insidious and fatal. As an eminent temperance worker, a physician, once said, "Tobacco is as much worse than liquor as palsy is worse than fever."

6. *The use of tobacco lessens muscular power.*

Experience has demonstrated in the most conclusive manner that tobacco-using is entirely incompatible with the most perfect development of muscular strength and activity. The boat clubs of both English and American colleges recognize this fact, and wholly interdict its use by their members. It is also denied to athletes who are training for an exhibition of their strength or agility.

It is also well known that tobacco destroys the appetite for food, so that a quantity inadequate to maintain the bodily vigor will yet be sufficient to satisfy the appetite. Old smokers have often been known to substitute, from choice, a pipe of tobacco for a wholesome dinner. The effect of this influence must be very evident.

The effect of tobacco upon the Turks, who are inveterate smokers, is seen in their remarkable physical degeneracy. Once they were among the most courageous and warlike of

nations. Now they are cowardly, weak, and effeminate, having smoked away their former hardihood and physical superiority.

7. *Tobacco-using ruins the voice.*

Many a fine speaker or singer has sacrificed his greatest charm upon the shrine of this somniferous god. Hundreds of preachers have left their charges and gone abroad for their health, supposing that they had ruined their vocal organs by their energetic exhortations and earnest appeals in behalf of piety, when the sole cause was their own reprehensible indulgence in cigars or "fine cut."

8. *Tobacco destroys the healthy acuteness of the senses.*

Who ever heard of a tobacco-chewer who possessed remarkable delicacy of taste? The delicate nerves which are especially designed for detecting the flavors of substances, are soon blunted, if not wholly destroyed, when constantly insulted with the pungent, acrid flavor of tobacco. We once saw a man whose gustatory sense had become so nearly obliterated that he could scarcely excite it by tickling his palate with a glass of pepper sauce, which he quaffed with as much nonchalance as though it had been the mildest claret.

Smoking and snuff-taking, especially the latter, are fatal to the olfactory sense, the nose losing almost entirely its utility as an organ of smell. Deafness and blindness are, likewise, not infrequent results of tobacco-using in its various forms.

9. *The use of tobacco renders people more subject to the influence of contagious and epidemics.*

Tobacco is anti-vital; and, hence, its use is devitalizing. It wastes the vital power, and tears down the defenses of the system, laying it open to the inroads of malaria, contagion, or any other of the immediate causes of disease. An eminent writer in a popular magazine, although himself a user of tobacco, acknowledges that, while for some years a resident of the tropics, he observed that abstainers from tobacco were the only Europeans who escaped the ravages of fever in a district where it prevailed extensively. He also noticed that "smokers were the chosen victims of cholera, and intermittent and yellow fevers."

10. *Tobacco-using spreads contagion.*

Many instances have occurred in which the infection which gave rise to one of the most direful and hopeless of malignant diseases, was traced directly to cigars which were manufactured by diseased persons. Not long since, an occurrence of this nature attracted attention to a large Chinese tobacco factory in San Francisco. Upon inspection by a physician, it was found that a number of the hands were almost putrid with that terrible disease which is the penalty of vice, and which is unknown except among civilized nations.

11. *Tobacco-using leads to premature death.*

Anything which saps vitality, and undermines the constitution, must shorten life. That tobacco does this would be expected from its very nature; and experience fully confirms the fact.

12. *Tobacco is the direct cause of many serious and some incurable diseases.*

We do not say that tobacco is the cause of all diseases, or that it is the immediate cause of a hundred maladies, although it may truthfully be regarded as a *predisposing* cause of almost all the ills to which flesh is subject. We only enumerate those diseases which are primarily due to the pernicious influence of the drug. Consider the terrible list, every one of which is attributed by good medical authority to the use of tobacco:—

1. Cancer of the stomach, lips, tongue, cheek, nose, and pancreas; 2. Apoplexy; 3. Paralysis; 4. Dyspepsia; 5. Consumption; 6. Impotency; 7. Torpid liver; 8. Diarrhea; 9. Asthma; 10. Constipation; 11. Delirium tremens; 12. Imbecility; 13. Incurable ulcers of mouth, throat, lips, and tongue; 14. Congestion of the brain; 15. Palsy; 16. Piles; 17. Heart disease; 18. Nervousness; 19. Blindness; 20. Vertigo; 21. Sore throat; 22. Epilepsy; 23. Deafness; 24. Loss of memory; 25. Sleeplessness; 26. Necrosis of the maxillary bone; 27. Neuralgia; 28. Locomotor ataxia; 29. Rheumatism; 30. Angina pectoris.

Here we have thirty most appalling diseases, all of which can be traced directly to the use of tobacco, and each of which might be illustrated by numerous clinical cases cited in medical works. Who is willing to run the risk of contracting any of these diseases? The person who is, will inevitably find himself a victim of one or more of them.

MENTAL EVILS.

1. *The use of tobacco destroys manliness and resolution.*

We have already referred to the Turks as an example of what tobacco will do in this direction; but we see equally well marked cases all about us. What a spectacle of palsied resolution, enervated will, and shattered firmness, do we behold in the poor slave to tobacco, who, when endeavoring to escape from its thrall, exclaimed in hopeless despair, "Alas! I need tobacco to give me resolution to fight tobacco!"

2. *Tobacco-using weakens the intellect.*

It is now a universally admitted truth that perfect mental health and strength can only exist with a corresponding physical condition; hence, anything which weakens the body must enervate the mind as well.

A few years ago, the superintendent of public instruction in France issued a circular forbidding the use of tobacco in any form by the

students throughout the empire, on the ground "that the physical as well as the intellectual development of many youths has been checked" by its use. Accurate observation and comparison of the proficiency of students in our best colleges have shown that those who abstain from the use of tobacco always rank higher in scholarship than those who are addicted to its use. We do not wish to intimate that all tobacco-users are fools; some minds are so brilliant that they shine in spite of the befogging, stupefying influence of narcotism. But men of lesser genius cannot afford thus to waste and obscure their abilities. Who can tell how much *greater* might have been the achievements of such men as Locke, Addison, and Jonson, had their minds been untrammelled by the fetters of the tobacco habit? Who will say that the glory of their lives might not have shone with a brighter luster had it not been partially eclipsed by a debasing, debilitating, devitalizing, demontating habit.

3. *Tobacco-using destroys fineness of feeling and sentiment.*

As already observed, tobacco-using exerts a most destructive influence upon the physical senses, often quite obliterating four of the five great avenues of sensibility. Its influence is still more insalutary upon the far more delicate organs of emotion and sentiment which are so readily affected by physical changes in the body. Alcohol is bad enough; but it only *temporarily* perverts the imagination and the judgment. Tobacco does more. Its influence is constant and accumulative. It not only perverts, but weakens and paralyzes. It changes a kind-hearted, sociable, sympathetic man into a selfish, irritable, repulsive, unappreciative despot, who will never hesitate to sacrifice the comfort, convenience, health, even life, of his wife or child to the gratification of his debasing appetite.

4. *Tobacco is a tyrant.*

Every man who allows himself to contract the tobacco habit yields his liberty, his personal freedom, into the hands of a despot whose tyranny knows no bounds. Of this, he is usually unaware until he tries to break the fetters of habit and free himself from its blighting influence, when he finds himself grasped by the powerful hand of appetite, his resolution destroyed, and his courage daunted. The following lines by a tobacco-user will well illustrate the forlorn condition of a slave to the vile habit:—

"For thy sake, tobacco, I
Would do anything but die."

This infatuated devotee of tobacco, in company with thousands of others, although not expressing his willingness to do so, doubtless *did* even yield his life to his god, *tobacco*.

5. *Tobacco-using is a frequent cause of imbecility and insanity.*

This is the testimony of many eminent medical men, and is confirmed by the observation of the superintendents and physicians of insane asylums. Numerous instances might be cited of intelligent, talented individuals who became insane from the use of tobacco, and were only cured by a discontinuance of the habit. In one insane asylum in Massachusetts, there were eight patients who were victims of tobacco-use. In another asylum were found, at one time, three insane clergymen, who clamored incessantly for the poison which had dethroned their reason, beseeching every visitor in the most pitiful tones for tobacco.

Statisticians tell us that, since the use of tobacco was introduced among civilized nations, all forms of nervous diseases have increased greatly; is not the cause apparent?

J. H. K.

Home.

WE assert, as a rule, the whole tone of a home depends upon the woman at the head of it—the *average* home; not the poverty-stricken home, nor the wealthy home. . . . In this *average* home, whether sunshine shall enter the rooms, whether the parlor shall be used and enjoyed, whether the table shall be invitingly spread, whether bright lights and bright fires shall give warmth and cheer on winter nights—whether, in brief, the home shall be an agreeable or a disagreeable place, is usually what the woman determines. Men are powerless in the matter. Some find solace for a dismal home in study; some, occupation in business; some submit with what patience they can; others are attracted by the cheer of the public-house; and it is especially young men who are apt in consequence to drift away into bad company and bad habits. There are men—and men. Our whole argument refers to individuals among men who succumb to bad influences—not the sex, but a class.—*Appleton's Journal.*

THE PHILOSOPHER'S STONE.—THE eccentric but brilliant John Randolph once rose suddenly up in his seat in the House of Representatives and screamed out at the top of his shrill voice,—

“Mr. Speaker! Mr. Speaker! I have discovered the philosopher's stone. It is—Pay as you go!”

John Randolph dropped many rich gems from his mouth, but never a richer one than that. “Pay as you go,” and you need not dodge sheriffs and constables. “Pay as you go,” and you can walk the streets with an erect back and manly front, and have no fear of those you meet. You can look any man in the eye without flinching. You won't have to

cross the street to avoid a dun, or look intently in a shop window in order not to see a creditor. “Pay as you go,” and you can snap your finger at the world, and when you laugh it will be a hearty, honest one, and not like the laugh of the poor debtor, who looks around as though he was in doubt whether the laugh was not the property of his creditors, and not included in articles “exempted from attachment.” “Pay as you go,” and you will meet smiling faces at home—happy, cherry-cheeked, smiling children—a contented wife—a cheerful hearthstone. John Randolph was right. It is the philosopher's stone.

Healthy Throats.

THE drug stores are full of troches, lozenges, and compounds for speakers and singers. All these medicines have an important mission, but how much better would it be to avoid the ills than to spend one's time in trying to cure them.

1. Speak naturally. Let not incompetent elocutionists or barbarisms of custom give you tones or enunciations at war with those that God implanted. Study the vocal instrument and then play the best tune on it possible, but do not try to make a flute sound like a trumpet, or a bagpipe do the work of a violin.

2. Remember that the throat and lungs were no more intended to speak with than the whole body. If the vocal organs get red-hot during a religious service, while the rest of the body does not sympathize with them, there will be inflammation, irritation, and decay. But if the man shall, by appreciation of some great theme of time and eternity, go into it with all his body and soul, there will be an equalization of the whole physical organism, and bronchitis will not know whether to attack the speaker in the throat, right knee, or left ankle; and while it is deciding at what point to make assault, the speaker will go scot-free. The man who besieges an audience only with his throat, attempts to take a castle with one gun; but he who comes at them with head, eyes, hands, heart, feet, unlimbers against it a whole park of artillery. Then Sebastopol is sure to be taken.—*Rev. T. De Witt Talmage.*

WASTE OF LIFE.—People talk very loudly about the waste of lives in war; I wonder to how many people it has occurred what is the waste of lives in peace. I doubt if the most sanguinary battle that was ever fought in ancient or modern history has carried off nearly as many human beings as die in England in one year from purely preventable causes. Now, that is the state of things around us; of course we cannot change it in a day, but we can modify it.—*Earl of Derby.*

DIETETICS.

Food.—No. 3.

THE last article was chiefly devoted to a description of the proximate elements of food and the proportions in which they exist in many of the more common articles of diet. Let us now consider the use which is made, in the body, of each of these several elements.

GLUTEN.

If a quantity of bruised wheat be washed free from starch upon a cloth or seive, the tenacious mass left will consist chiefly of gluten. It is of this material that the muscles, nerves, cords, tendons, and membranes of the body are made. In fact, of this substance are made all the *living* tissues of the body. When it is withheld, either purposely, as in experiments, or inadvertently, the strength speedily fails, and the individual dies. Every other element may be supplied, but in vain. No amount of starch, or fat, or sugar, can sustain the animal strength.

Caseine, fibrine, and albumen, are substances nearly identical in character, and are possessed of similar properties; but we have chosen gluten as a representative of all nitrogenous substances. Notwithstanding the importance of these substances as elements of food, it is nevertheless true that no animal can subsist entirely upon any one of them. The other elements yet to be mentioned must also be employed.

STARCH.

With the appearance of starch, all are quite familiar. It is one of the elements of food which contribute to the maintenance of animal heat. It is largely carbonaceous, and assists in maintaining heat in two ways: 1. It undergoes chemical and vital changes in the system which results in its ultimate combustion with consequent production of heat. 2. It is converted into fat; and by forming a sort of blanket about the body, the heat of the body is retained, and so economized. Hence it is that all farinaceous articles of food are excellent for the production of heat; but such articles must not be depended upon for the maintenance of physical strength. Thus, rice and corn starch are very good food for those who require great power to resist the cold; but they are poor articles to furnish muscular power.

Gluten and all other nitrogenous substances are digested mainly in the stomach. Starch is digested in the mouth and duodenum, undergoing little or no change in the stomach. Hence the importance of carefully and thoroughly masticating the food, so that the saliva may be fully incorporated with it.

SUGAR.

This toothsome substance has been the cause of much discussion and experiment, not only among hygienists, but among scientific men generally. It is now almost universally admitted that, like starch, sugar is of greater or less utility as an article of food which is productive of heat and fat. Just how its conversion into fat occurs, is something of a mystery; but it is a well-known fact that animals fed upon saccharine substances increase in fat, and also that bees are able to manufacture wax, a kind of fat, from pure sugar.

It must be admitted, however, that the chief value of sugar is its power to render palatable, food which we would otherwise be unable to relish. In this respect, it is precisely analogous to those subtle flavors and odors which characterize the various fruits and vegetables. No one claims that these are nutritious, and yet they are readily admitted to be essential to our food. The principal use for sugar should be to render less sour some of the most acid fruits. It must not be added, however, in such cases, with the idea that it neutralizes the acid, for, chemically considered, it is itself an acid. It merely obscures the sour taste. Sugar cannot be healthfully employed in making cookies, sweet cakes, preserves, and in similar ways, for this is the abuse of it, rather than a moderate use, which should alone be tolerated.

However true it may be that sugar may be manufactured into fat in the body, and may assist in the production of animal heat, it is wholly *unnecessary* for these purposes, since more than one-half of all the solid food we eat is composed of starch, which is designed for these very ends.

MINERAL ELEMENTS.

This branch of the subject has also been the occasion of a great amount of discussion; and in it are involved some very important principles. It has long been claimed by leading hygienists that in organized substances no mineral matter existed, as such, except incidentally, in rare cases; but the researches of microscopists have revealed to us the fact that the phosphates of wheat and other grains exist in the grain in the form of minute crystals! The question then arises, if this is the case, cannot the same kind of inorganic matter be added to the food and undergo assimilation just as well as that which is found in the plant after having been taken in, in the process of growth. Both analogy and experience say, No.

But it is a settled fact that the mineral salts found in many articles of food are of use in the system, especially in the formation and maintenance of the bones. A deficiency of mineral matter is the cause of a disease termed rickets, when it appears in youth, and in such

cases it is frequently caused by the use of fine-flour bread.

We cannot be justified in adding minerals of any kind to our food until we are certain that we are providing them in precisely the same quantities, and in exactly the same conditions in which they are presented in vegetable food by nature. Of this we can never be fully assured, and, consequently, our only course is to take our food as nature made it, trusting that any attempt at improvement on our part will be disastrous.

Graham Flour or Wheat Meal.

At the present time, there are few who have not heard of graham bread, if they have not been so fortunate as to see and taste it. In most of our cities, graham bread is now kept constantly for sale by all respectable bakers. The name *graham* flour has been given to unbolted wheat meal in deference to Dr. Sylvester Graham, to whose public labors as a physician and lecturer the introduction of the article into quite large use was mainly due. If it is queried why we do not spell the word *graham* with a capital when applying it to the article of food under consideration, we answer, that so common has the word become that we feel justified in treating it as a common noun; and, in so doing, we think we pay a high tribute to Dr. Graham; for what could be a better evidence of a man's extensive usefulness in the world than the fact that his name had become a household word? But this is quite sufficient concerning the name; now let us examine the nature of the article.

Doubtless, most readers of the REFORMER are quite familiar with the pre-eminent value of graham flour as a food, over the superfine white flour so generally employed; but there may be those who are curious to know more of this question than has been brought to their immediate notice. For the benefit of such we write,

In ancient times the grain was prepared by simple bruising in a mortar of stone, or by crushing between two rudely formed millstones which were turned by hand. The whole grain was thus utilized, and, no doubt, a considerable quantity of adventitious matter in addition. But modern ingenuity and refinement have attempted to improve upon these primitive methods of flour-making, and the old-fashioned and rude implements have been replaced by our modern flouring mills, in which the grain is ground to an impalpable powder, and the very finest and whitest then carefully separated from the rest by the process of bolting. This fine, white powder is held in the highest estimation,

and is carefully preserved for human consumption; while the coarser portions are used for enriching the soil, or are fed to inferior animals, as the hog. Now, we protest that this operation might be much more properly reversed, giving to the beast the finer portions of the wheat and reserving the coarser portions for his master. The only ill consequence likely to result from this course would be the starvation of the brutes.

But we shall be asked for our reasons for recommending such a strange procedure as this. Let us find them in examining a kernel of wheat. According to Dr. Parkes, a grain of wheat is composed of four envelopes inclosing a mass of delicate cells in which are found numerous starch granules. The central portion is almost wholly starch, while the envelopes contain a much larger proportion of gluten. The inner envelopes are especially rich in gluten, the external covering of the grain containing little or no nutriment, being merely a woody covering like the skin of an apple or potato.

Now, by the process of bolting, the portion of the kernel which constituted the envelopes is wholly removed, thus leaving, as the principal ingredient of the superfine residue, simply starch. By reference to an article in the present number, entitled, "Food," it will be seen that gluten is an element of much greater dietetic value than starch, it being a well-known fact that the latter is wholly inadequate to prolong life. Fine flour, then, is nearly deprived of one of the most essential elements of nutrition, and must, consequently, be considered of inferior value as an article of diet.

But there are still further considerations to be noticed. The salts which are necessary for the proper maintenance of the integrity of the bony structures, are also almost exclusively contained in the coverings of the kernel. The proportion in which the salts exist in the two external envelopes is ten times as great as the proportion of the same element in fine flour. When only fine flour is eaten, then, the system will be unsupplied with the proper amount of mineral matter, and will suffer greatly in consequence. Sometimes the attempt is made to supply this deficiency, but always without success. Thus, phosphated candy is offered at the confectionaries; and Prof. Horsford has invented a baking powder which he advertises as being capable of restoring to bolted flour the lost mineral elements. Doctors also undertake to make their patients swallow lime water, and various compounds of lime. All such attempts are worse than futile. The human stomach cannot digest inorganic matters of any sort. Neither can the human system assimilate any other material than that which has been prepared for it by the vegetable kingdom. The only way, then, for the demand for certain mineral elements to

be supplied is in the condition in which nature presents them in organized food.

Another important objection to fine flour is its unnatural concentration. The human digestive apparatus is adapted to the use of food of a certain degree of coarseness. That is, it requires a proper degree of bulk as well as nutrient properties. When the whole grain is eaten, this want is exactly met. When the bran and other coarse portions are removed from the meal, the organs of digestion are clogged; the bowels become constipated. Then follows that long train of ills among which stand, foremost, dyspepsia and hemorrhoids. The most external covering of the grain is wholly insoluble in the digestive juices, and so cannot furnish nutrition; but it is a valuable constituent of the food, inasmuch as it acts as a gentle mechanical irritant of the bowels, and so maintains their activity and accelerates the removal from the body of such foreign materials as should be discharged by the bowels.

The chief reasons then for considering graham flour vastly preferable to fine flour as an article of food are three; viz.,

1. It furnishes to the system the proper proportion of gluten, in which fine flour is greatly lacking.

2. It supplies, in a condition to be assimilated, the commensurate amount of mineral salts to keep in healthy condition the bony tissues of the body, which is not the case with bolted flour.

3. By its unconcentrated form, it maintains regularity of the bowels, while fine flour is the chief cause of constipation.

All who have properly used graham flour are unanimous in the testimony that it is sweeter and richer than the superfine article, besides being more healthful. In a few cases, it seems to produce excessive looseness of the bowels at first; such persons will find the difficulty easily relieved by removing from the meal the coarsest of the bran by passing it through an oat sieve. For persons who are thus affected, the meal should be ground as fine as can well be done, so that the bran may be rendered less coarse and irritating.

Gruel.

A FRIEND contributes the following recipe for making gruel which applies more particularly to wheat-meal gruel. It will doubtless be of service to many:—

A good article of gruel is often of use, and will be relished when the system does not require solid food. In case a person has little appetite, a bowl of gruel and a crust of dry bread will be better than a dose of physic, and is sufficient for a meal.

To make properly is one of the fine arts, and requires a little attention, and will readily

show who is "faithful in little things" and may be trusted with much. Several articles may be used, but wheat-meal is preferable. Have the water *boiling*. Make a paste of the meal and cold water, and stir in slowly. It must not stop boiling for a moment; if it does it will have a *raw* taste which you cannot remedy by cooking for hours.

A few trials will enable a person of sense to use the right quantity of meal and water. Having seen the article poorly prepared more frequently than otherwise, I do not wonder that many consider gruel as much an infliction as drug medicine; but, well made, it is palatable and nutritious. R.

Hygienic Recipes.

GREEN CORN CREAM.—Equal parts of grated green corn and water, strained through a sieve or cloth, make a fluid which very much resembles cream, and which may be used for many of the purposes for which cream is usually employed. It makes a very excellent dressing for puddings, vegetables of various sorts, and even for peaches, and similar fruits. Two parts of water to one of corn makes a thinner fluid which might be called green corn milk.

GREEN CORN WHITE SAUCE.—Place the milk, prepared as directed in the preceding recipe, in a saucepan, and stir until it boils. Add sufficient graham flour to make it of the desired thickness and boil five minutes longer. This is an excellent dressing for cabbage, cauliflower, potatoes, and other vegetables.

TOMATO PUDDING. No. 1. Slice thin, good graham bread or gems. Place in a baking dish with an abundance of sliced tomatoes, arranging in alternate layers. Cover close and bake an hour. Serve with sweet sauce.

No. 2. Peel and slice thin fine, ripe tomatoes. Place in a baking dish in layers, strewing between the layers equal parts of rice and chopped dates. Cover closely and bake in a moderate oven for two or three hours. Serve as preferred.

GREEN CORN CUSTARD. No. 1. Peel and shred sweet, mellow peaches. Add an equal quantity of grated sweet corn, and the same quantity of water. Mix well and bake in an earthen or porcelain baking dish for twenty minutes or half an hour. A little corn starch may be added for thickening if necessary. Excellent without dressing of any kind.

No. 2. Another custard can be made by using one part corn to two parts juicy tomatoes, peeled and sliced.

Grated apples, sliced plums, or almost any kind of fruit may be thus used with green corn.

SEASONABLE HINTS!

How to Make a Cistern.

In many localities, soft water can only be obtained by preserving, in some way, that which nature distills from the clouds. Cisterns built in the ground are commonly employed for this purpose; and every family should be provided with this convenience when necessary. But, as we remarked last month, it often happens that, through some defect in construction, a cistern becomes a source of disease rather than a means of health; hence the necessity for proper care in construction. The main thing is to make it perfectly impervious to the entrance of worms or vermin of any kind. It should be covered above, as well as upon the sides, with water-lime cement.

But for drinking and cooking purposes, rain water is wholly unfit, even when it is kept in as good condition as when it falls from the clouds. In its passage through the air, it gathers dust, and becomes colored with smoke and tainted with foul gases. Before it enters the cistern, also, it washes from the roof a great quantity of impurity—decayed wood, accumulated dust, and the offal of birds. A cistern should be so constructed that, if possible, these impurities may be entirely excluded from it.

This may be readily accomplished by constructing a filter in such connection with the cistern that all the water from the roof must pass through it before entering the cistern. A large, water-tight cask should be selected for the purpose. Sink this into the ground close to the cistern, establishing connection between the latter and the bottom of the cask. Place in the bottom of the cask a few clean, smooth, hard stones of the size of a man's fist, to serve as a support. Place upon these a perforated sheet of zinc made so as to nearly fit the cask. Upon this, place a layer of two or three inches of coarse gravel, thoroughly cleansed; then a thin layer of fine gravel. Upon this, place about a foot of fine, sharp, clean sand, thoroughly mixed with an equal quantity of freshly-burned and pulverized charcoal. Cover this with clean gravel to a depth of two or three inches, and the whole with another sheet of perforated zinc, and the filter is complete. There will be sufficient room left in the upper part of the cask to allow the accumulation of water when it is running in rapidly, as during a rain storm. The cask should be large enough to allow this.

Another method of purifying the water of cisterns, which is in some respects superior to the above, is the following: Build the cistern as already directed, and then divide it into two portions by means of a partition made of po-

rous brick, laid in water lime. Allow the water to enter the cistern upon one side of this partition, and withdraw it by means of a pump from the opposite side. It will be found that very complete purification will be effected by its filtration through the brick. Of course, the partition should be so tight that water can pass through only by soaking through the porous brick. Hard-burned or glazed brick must not be employed.

Still another means is to inclose the end of the pipe through which the water is withdrawn from the cistern, in a tight chamber of porous brick. The water will become nearly pure in passing into this chamber through the brick.

Those who have tried the two latter methods described, pronounce them to be very efficient means of purifying water, if properly employed. The first method has one advantage, however, in that the gravel and charcoal can be removed and renewed as frequently as desirable with but little trouble or expense.

Look out for Fevers.

THE time has come when we shall expect to hear of numerous cases of typhoid, bilious, intermittent, and yellow fevers. Thousands of fever patients will be treated with calomel, blue mass, alcohol, and other poisons, and a large percentage of them will die. A lesser number will be so fortunate as to receive no medical treatment whatever, and most of them will survive. A few of the most fortunate of all will receive hygienic treatment, and such will recover almost without exception, with proper care.

But although typhoid and other dreaded fevers lose much of their terror under hygienic management, it is by all means preferable to avoid them entirely. A person who rigidly adheres to a strictly hygienic regimen need entertain no fears, even while others are falling victims about him. And a person whose habits have been only approximately correct can do much to prevent febrile disease and to mitigate its severity.

As preventives of fever, a few simple precautions are very important.

1. Keep the bowels regular by the use of graham bread and ripe fruits, and, if necessary, frequent percussion of the abdomen.
2. Keep clean by frequent bathing.
3. Avoid overwork, overeating, and indulgence in any depressing influences.
4. Secure abundance of sleep.
5. Avoid the use of flesh food and of animal fats, together with excessive quantities of sugar.

If premonitory symptoms of fever are felt, do not neglect to take immediate measures to

prevent the threatened derangement of the functions. Do not imagine that you will be better to-morrow, but take warning by the admonitions of nature, and rest. Stop work, and stop eating. At least, forego your accustomed meals, taking nothing more than a little ripe fruit and graham or oatmeal gruel for a day or two. Take a warm bath and a pack; obtain all the sleep possible; and in many cases a "run of fever" will be prevented. Prompt and timely treatment would have saved thousands of lives.

Preserving Fruit.

ALL good hygienists thoroughly appreciate the value of fruit as a staple article of diet. It is, in fact, wholly indispensable. Now is the time to be on the alert to secure an abundance of it for winter and early summer use. Peaches and pears are ripening, and soon grapes and plums will be in the market. A few hints with reference to canning may be timely for some.

1. Never can any but the very best fruit you can obtain; it does not pay to can poor fruit.

2. Take the fruit when in its most prime condition. It should neither be green nor over-ripe.

3. Prepare carefully and can quickly, as it rapidly deteriorates by standing after partially prepared.

4. Be sure and remove from old cans every particle of last year's contents.

5. See that the covers and rubbers are in proper order, so that they can be made air tight.

6. In cooking the fruit, care must be exercised that it is thoroughly heated, so that the germs of fermentation may be thoroughly exterminated; but avoid cooking too much.

7. Put the fruit, while hot, into cans as quickly as possible; and do not open the cans to refill, even if a little space may be left as the result of shrinkage.

In preparing peaches, the skins may be readily removed by dipping them for a moment into boiling water and then rubbing with a rough cloth.

WHERE DEATH LURKS.—In neglected drains and cesspools, uncleansed cisterns, foul wells, moldy cellars, unventilated bedrooms and closets, filthy barnyards, undisinfected privies, and in every other place where foul or decomposing matter is allowed to accumulate, death and disease are lurking; and all who do not search out and remove all nuisances of the kind mentioned will be legitimate subjects of disease.

To Correspondents.

ARTIFICIAL TEETH—OFFENSIVE SWEAT.—I. W. W., inquires: 1. Should artificial teeth be worn at night? 2. Does it show that the system is out of order when the sweat has an unpleasant odor? If so, what should be done to purify it?

Ans. 1. Dental plates should be removed from the mouth before retiring, and should be immersed in a cup of soft water during the night. 2. The sweat is a natural excretion, and hence will be more or less offensive, even when a person is enjoying the most perfect health. Especially is this true when the products of perspiration are allowed to remain long upon the body. A few hours are often sufficient, in midsummer, to cause the sweat to acquire a most putrid and offensive odor, even when it had no such apparent taint at first. Uncommonly foul perspiration may be an evidence of disease. In this case the only remedy is attention to the particular organ diseased, or to the general health of the system, as the case may demand. In very warm weather a daily bath is indispensable to cleanliness.

HAIR OIL.—H. M., Iowa, asks: Is hair oil good for the hair?

Ans. No. The use of oil upon the hair is a habit which is not only unnecessary and unhealthful, but dirty and disagreeable. No person of good taste will allow himself to obtrude upon the senses of his associates the penetrating odors with which hair oils are commonly scented, which are many times not only unpleasant, but nauseating and sickening to all who inhale them, with the single exception of the offender. Whenever we meet a person who is strongly perfumed with musk or bergamot, we feel like hastening on as rapidly as possible, and often find it difficult to repress the suspicion that the cheap perfumery hides some less pungent odor of dirt.

When the scalp is healthy, the hair is kept soft and pliable by the secretion of oil by little glands situated at the roots of the hair. The only lotion which should ever be applied to the hair is water, pure and soft. Filtered rain water is the best.

SCROFULOUS SWELLING.—L. M.: From your description, we are led to believe that your aunt is suffering from a scrofulous affection which may be removed by proper hygienic treatment. Do not fail to make the effort, at least.

CANCERS.—L. W. J., asks: Have there been any cancers cured at your Institute?

Ans. Yes.

SCIENTIFIC.

The Colors of Birds' Wings.

It would be an error to suppose that all the exquisite metallic shades which diaper the feathers of birds and the wings of butterflies arise from pigments; it was a dream of the alchemists to try to extract them. Their sole cause is the play of light, fugitive as the sparkles of the diamond. When the beautiful feathers on the breast of the humming-bird are examined under the microscope, it is astonishing to see none of the shades the mystery of which you would penetrate. They are simply made of a dark brown opaque substance not unlike those of a black duck. There is, however, a remarkable arrangement; the barbe of the feather, instead of being a fringed stem, offers a series of small squares of horny substance placed point to point. These plates, of infinitesimal size, are extremely thin, brown, and to all appearance, exactly alike, whatever may be the reflection they give. The brilliant, large feathers of the peacock are the same; the plates are only at a greater distance and of less brightness. They have been described as so many little mirrors, but that comparison is not correct, for then they would only give back light without coloring it. Neither do they act by decomposing the rays which pass through them, for then they would not lose their iris tints under the microscope. It is to metals alone that the metallic plumage of the humming-birds can be compared; the effects of the plates in a feather are like tempered steel or crystallized bismuth. Certain specimens emit colors very variable under different angles, the same scarlet feather becoming, when turned to ninety degrees, a beautiful emerald green.—*Popular Science Monthly.*

Electrical Music.

THERE seems to be no end to the wonders of electricity. It would be impossible to enumerate, even, in a short article, a tithe of the curious and remarkable phenomena which attend the diversified action of this curious agent.

The latest electrical marvel discovered is the fact that with all its other wonderful properties this subtle agent possesses excellent musical properties. Not only is it able to produce the deep and solemn base tones which reverberate through the vaulted sky during a summer's thunder storm, but by means of a recent invention it has been enabled to produce the softest notes, and even sing any number of the sweetest tunes.

The apparatus is said to consist of a sort of piano, each key of which is connected with the wires of a strong battery. A tune played upon this instrument is transmitted by the wire over the whole length of the circuit, and is delivered

at the other end by means of any sonorous body. A short time since, a tune was thus made to traverse a circuit of more than 2,000 miles, being reproduced, at the end of the line, upon a violin.

Agricultural Ants.

ONE of the latest discoveries which supports the idea that the lower animals are endowed with a considerable degree of reason is an observation made by a traveler with reference to the habits of a particular species of ants which is found in Texas. These ants depend, for their subsistence, almost entirely upon the seeds of a certain species of grass which grows in considerable quantities when afforded a favorable opportunity; but sometimes it is choked down by other weeds so that it does not come to maturity, and the ants are thus deprived of their food. To prevent such a catastrophe, the ants carefully tend the young grass while it is growing, working about among its blades, and biting off the young shoots of every other plant except the desired one. When the seed is ripe, it is regularly harvested and stored away for future use.

Literary Notices.

THE National Temperance Society continues to issue from its publishing house at New York the most efficient weapons against intemperance, in the form of numerous tracts, pamphlets, and hand bills, printed in neat and attractive styles, and filled with the productions of able and successful workers in the temperance cause.

During the last month, we have received the following, fresh from the press:—

The Liquor Traffic—the Fallacies of its Defenders; a pamphlet. Four excellent tracts of four pages each, on important subjects. A series of ten one-page hand-bill tracts, and nine Children's Temperance Tracts.

Those interested in the temperance cause will do well to obtain a supply of these tracts for distribution.

TOBACCO TRACTS.—The Rev. Geo. Trask, of Fitchburg, Mass., sends us, from time to time, various publications exposing the evils of the tobacco habit. A new budget has just been received, among which we find one entitled, "Diary of Rev. Solomon Spittle," which is very amusing and true to life, though doubtless fictitious. We are gratified to see the energetic efforts of Mr. Trask in this direction; but we cannot hope for him the success for which he has looked so many years. Men and women will not be shamed out of evil habits; they will not abandon them because of their expense. The only way to reform them is to begin at the root of the evil and correct their depraved tastes. Health reform alone can do this.

THE RURAL SOUTHERNER AND WILSON'S HERALD OF HEALTH is the title of a journal which comes to us from Atlanta, Ga. It contains much excellent and useful information.

Items for the Month.

A BLUE cross by this paragraph signifies that the subscription has expired, and that this number is the last that will be sent till the subscription is renewed. A renewal is earnestly solicited.

We We are now engaged in preparing a HEALTH ALMANAC, and hope to be able to announce its publication in next issue.

This This number goes to press a few days later than usual, owing to many unavoidable circumstances which have caused delay.

Those Those who wish to canvass for us during the fall and winter months, should apprise us of the fact immediately, so that proper arrangements may be made.

The The article on "The Evils of Tobacco-Using," in the present number, is mainly extracted from the tract entitled, "Startling Facts about Tobacco," noticed last month. The remaining articles of the series will be largely drawn from the same source.

The Health Institute.

THIS flourishing institution has been receiving, during the summer, a very liberal share of the public patronage, the number of patients having usually been as great as the large main building with seven fine cottages could well accommodate. Encouraged by the unexpected success which has attended the institution since its small beginning, eight years ago, the managers are determined to enlarge its capacity and increase its facilities so that the very flattering reputation which it already enjoys may be not only fully sustained, but vastly increased.

The friends of the cause will be greatly rejoiced to learn that Eld. James White, the former editor of the REFORMER, and the President of the Board of Managers of the institution, has returned from his visit to the Pacific Coast, and is now engaged with his accustomed energy and thoroughness in renovating and improving the buildings and grounds. He is determined to make such changes, additions, and improvements, as shall enable the Battle Creek Health Institute to stand foremost among the institutions of this kind in America; and from what we know of his extensive plans, we feel no hesitancy in assuring the friends of the Institute everywhere, and all who may anticipate patronizing the institution, that we shall soon be able to invite them to a home for the sick and suffering in no respects inferior to any other on the continent. The Elder has declared his intention to stop short of nothing but a model health institution, and we shall soon see it.

Scatter the Truth.

MUCH time and labor has been expended in preparing for general distribution a series of tracts embracing the most prominent features of the health movement. These were severally noticed last month. Although so short a time has elapsed since their publication, it is with pleasure that we think that thousands are already circulating among those who need enlightenment upon the subjects of which they treat.

All cannot enter the field as lecturers, neither are all called upon to serve their fellow-men in the capacity of physicians; but all can do the cause and humanity good service as tract distributors. A small tract or pamphlet handed to a friend or a casual acquaintance, or dropped in a railroad car or waiting room, or laid upon the table of a hotel bar-room, may accomplish an inestimable amount of good.

Continue to send in your orders, friends, and tracts will be furnished you at very nearly the cost of publication.

Agitate and Circulate.

THOUSANDS of those who receive the REFORMER as it goes out on its monthly mission are solely indebted to its teachings for the light and knowledge upon health subjects which they have received. Are there not many thousands, yes, millions of persons in the land who are as totally ignorant of the glorious truths of health reform as were most of the readers of the REFORMER a few years ago? While this is undoubtedly the case, does not true philanthropy and charity demand that those who have received the blessings of health and increased happiness through obedience to the laws of health should be energetically engaged in endeavoring to place in the hands of others the knowledge which has proved of such inestimable value to themselves? No one will dispute an affirmative answer.

We invite our numerous friends to turn their attention to the work of agitating the subject of health reform upon a much more extensive scale than they have heretofore done. The country, especially in the cities, is filled with sick and suffering individuals who are longing and pining for the very assistance which we can afford them. *Agitate, agitate, AGITATE* this great subject. Call attention to it; get people to reading and investigating, and the candid will be convinced.

Circulate the truth, friends. Pay the debt of gratitude you owe the health reform by acquainting others with its truths.

THE HEALTH REFORMER.

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