

The Health Reformer.

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

VOL. 9.

BATTLE CREEK, MICH., APRIL, 1874.

NO. 4.

The Health Reformer.

JAMES WHITE : : : EDITOR.

Health in the West.

HAVING spent fifteen months in that portion of our country embracing what is called "The Pacific Coast States and Territories," chiefly for the improvement of health, we feel pretty well qualified to report upon the subject. And we do this the more readily, not only for the benefit of our readers who live in these States and Territories, but for the information of those who desire to come West for health.

It is very evident to the close observer who has traveled extensively in the Atlantic States, and also on the Pacific coast, that the people of the latter section are more buoyant in spirits and healthful in appearance than those of the former. There may be several reasons for this difference :—

1. A large proportion of those who crossed the Plains at an early day, before railroads were built, or who came to California by water, were of that courageous and dashing class who secure all the benefits, healthwise, of activity of body and mind.

2. Although quite a per cent of all the population that moved to the Pacific coast came for the express purpose of improving health, and were consequently feeble when they came, yet it will be admitted that a much larger class possessed physical strength somewhat in proportion to the spirit of enterprise within them.

3. And last, but by no means the least reason for the superior buoyancy of spirit and healthful appearance of the people of the Pacific States and Territories, when compared with our Eastern people, is the fact that the comparative mildness of the climate, together with the purity of the atmosphere, is conducive to cheerfulness and health.

COLORADO.

The Territory of Colorado has been called by some writers "the Switzerland of America."

In respect to its mountains, and generally broken surface, and the purity of its atmosphere and water, it may be worthy of this designation. Its valleys yield the finest grain, and the mountainous portions produce excellent potatoes and grazing; but it will bear no comparison with Switzerland with its vineyards and fruits of almost every kind. Colorado is dependent on California and the Eastern States for its fruit, and doubtless ever will be.

This Territory is a delightful resort for those who can afford the expense of living in it during the summer months. But it should be understood on the start that a sojourn in Colorado under ordinary circumstances is very expensive. Common board for laboring men is seven dollars a week. And almost everything a tourist or an invalid might need for his comfort or pleasure would cost double or triple what it would in the Eastern or Middle States.

Colorado has a name abroad as a grand hospital for the recovery of the sick, which it does not deserve. One scheme resorted to by corporations and individuals, for whose interest it is to increase the population of the territory, has been to send out overrated and unqualified statements of the healthfulness of the country in pamphlets and circulars written by M. D.'s who become their willing tools for cash. And thousands of persons visit Colorado for health every year, very many of whom are beyond help from any earthly source. This furnishes business for the railroads, for keepers of hotels and boarding houses throughout the territory, and adds largely to the business of resident physicians and undertakers in disposing of those who were too feeble to leave their homes with safety, and whose lives were cut short by the sudden change to the cool and light atmosphere of the mountain heights.

As we stepped upon the eastward bound train at Cheyenne, Wyoming Territory, last November, an uncoffined corpse of a consumptive was taken off from the car we entered. We learned from the porter that a few months before he had taken a trip to California for his

health. And, being convinced that he had delayed the matter of the recovery of his health too long, he was returning to die with his friends at his Ohio home. We learned that only the evening before, at an altitude of about 6,000 feet, above tide, he was able to walk from the car to the station-house for his supper, and that the next morning at a still higher altitude he was able to move about; but when he reached Sherman, located at an altitude of 8,242 feet, the highest point upon the road, the air was so very rarified that it no longer contained oxygen sufficient to sustain life, and he ceased to breathe. This instance may illustrate how the lives of very feeble persons, especially consumptives, are cut short by sudden changes to the mountains.

Feeble persons from the East should cross the plains in covered wagons, camping out in the most comfortable emigrant style, and should slowly move up the mountains, increasing the amount of clothing as they reach the cooler heights, and should continue camp life for months. Under such circumstances, with healthful food, the purity of the water and of the atmosphere is almost certain to greatly improve the health. As an illustration of the ruinous vicissitudes of temperature resulting from the sudden transition by railroad, in early summer, from the vicinity of Burlington on the Mississippi, or Omaha on the Missouri, to the Rocky Mountains, we would here state that when we left Omaha, June 24, 1873, the mercury of the thermometer indicated 104°, and on the 30th, at Walling's Mills, in the mountains, an inch or more of snow fell.

Thousands of feeble persons take their flight to the mountains by steam, crowd into fashionable hotels and boarding houses, eat and drink fashionably, neglect to make proper changes in clothing, take cold, feel worse, get discouraged, and, if they have sufficient strength left, return to their homes; while many from feebleness are obliged to remain, and die away from their friends, and are carried home in their coffins. The benefits of a few months' sojourn in Colorado mountains during the summer months may be stated as follows:—

1. If those suffering from ill health have business or family cares at home, and can leave them at home, the change and freedom from them is most beneficial to those whose minds can take in inspiration from the grand surrounding scenery.

2. Those who visit the mountains with sufficient strength to make the journey in a proper way, and whose habits of eating, drinking, sleeping, and exercising, are healthful, are sure to be greatly benefited. They will ever find ready at hand the best gymnastic and breathing exercises, in ascending and descending the mountains on foot, or on ponies and donkeys. And as they become accustomed to the light air, they can breathe quite comfortably at an altitude 1000 or 1200 feet. The necessity of taking a larger quantity of air on account of its rarification, greatly increases the capacity and strength of the breathing apparatus.

3. As God's grandest remedies are pure food, pure water, and pure air—all other providential blessings being equal—these may be secured in the Rocky Mountains in the highest state of perfection.

There can be no purer water beneath the sun than is found in a million springs, and which runs in a thousand rivulets among the Colorado mountains. As was said of Canaan, "The land is well watered."

And the very air one breathes seems invigorating and most delightful. Its purity and sweetness may be better understood when we state that the amount of decaying vegetable matter on one hundred acres of its surface is not equal to that of one acre of the fertile soil of the Middle States. Ninety-five per cent of the surface of the mountain regions is covered with small, hard pines, whose growth is exceedingly slow, and their decay equally slow. The amount of decayed vegetable matter from this class of evergreens is the next thing to none at all. The narrow valleys that wind around among the mountains, almost invariably have rapid streams of pure cold water passing through them. Marshes and stagnant water are seldom if ever seen. And these valleys are densely covered in summer with an almost endless variety of flowers, reaching up the sides of the mountains. These native flowers, for beauty and fragrance, will fully equal those which share the tenderest care of the horticulturist. W. C. W., of our party, collected and preserved not far from two hundred varieties. The reader can better imagine than we can describe the condition of the atmosphere after a gentle shower upon a world of evergreens and flowers sending forth their delightful odors.

And as pure food can be obtained in Colo-

rado as in any part of the world. The valleys produce the best wheat and vegetables we have ever seen. But, excepting wild strawberries, raspberries, and gooseberries, the Territory does not produce fruit. Since commencing this writing, we have taken a pleasure ride with Mrs. W. and two little Colorado girls who are spending the winter with us here in California. As we passed the trees covered with white and pink blossoms, one of the girls, near seven years old, exclaimed, "What funny leaves on those trees!" "What leaves?" was the inquiry. "Why, those white and pink leaves," was the reply, as she pointed to the blossoms on the trees. This little girl had never seen fruit trees in blossom in the Rocky Mountains, for they do not grow there. Fruit, however, is brought into the Territory in abundance, in its natural state, in doubtful tin cans, and dried. The most strict hygienist can find all his table wants supplied in Colorado. In fact, the demand for healthful diet by a thousand well-informed invalids who visit the Territory has made changes in the tables at hotels and boarding houses, and has influenced public sentiment more or less.

The general health of the people of Colorado who came to the Territory in the enjoyment of a good degree of health, is from twenty-five to fifty per cent better than that of the people east of the Mississippi River. But at present Colorado does not hold out large inducements to those who would move West to increase their health.

And there is another method by which invalids may regain health more surely, and rapidly, and with far less expense than to make the long journey to Colorado. All the real benefits of a sojourn in the Rocky Mountains can now be obtained at the Health Reform Institute, located in the city of Battle Creek, Michigan. There the patient is at once under the care of experienced physicians. There is provided the purest diet. There is also an abundance of pure water and purity of atmosphere second to that of no other State east of the Mississippi River, and there are advantages such as the Hot-Air-Bath (which possesses all the virtues of the Turkish-Bath, while avoiding its evils), the much-renowned Electric or Electro-Thermal-Bath, the Lift-Cure, and the celebrated Swedish-Movement-Cure, which are so successful in many cases which cannot be reached by other means. The "Vibrator," a machine for

giving passive exercise, has been recently introduced, and is a most effective remedy for many chronic cases. We recommend to all persons of delicate constitutions, and especially those who are sensible of any degree of failing health, to spend a few months, or at least weeks, at the Battle Creek Health Institute where they may learn for themselves, from the lectures and from personal interests at the tables, bath rooms, &c., how to secure and maintain healthful conditions. Those who are suffering failing health, are warned against delaying the matter of recovery until their cases become doubtful. One month's treatment will do more when symptoms of failing health first appear than six months' when the sufferer has become so weakened by disease as to be unable to labor.

But to return to Colorado; the superior climate and water, and the grandeur of the scenery, is admitted. Camp life in its parks, for those who have a taste that way, is healthful and exceedingly agreeable to those who are worn and weary by sedentary habits in-doors. Our company spent twenty-three days in the celebrated Central Park last autumn, in our goodly Boston tent. And during this whole time we did not step over the threshold of a house.

Health mainly depends upon the purity of the blood. The purity of the blood generally depends upon the purity of the food we eat, the water we drink, and the air we breathe. The benefits of life in Colorado may be summed up in the purity of its air and water. But pure food, pure water, and comparatively pure air, can be found in almost any locality in our country. What the people need is to be educated on this subject so that they may live healthfully at home instead of spending a little fortune in a summer's sojourn in Colorado.

A pure, simple, yet nourishing diet can be obtained almost anywhere, and by the use of Kedzie's rain-water filter, the purest water can be obtained in any country where the heavens give rain. And in proper localities, with attention to cleanliness of the premises and ventilation of every room in the house, especially of sleeping-rooms at night, the purity of the air may approximate very nearly to that of the Rocky Mountains. Let the people be educated on these subjects by reading the HEALTH REFORMER, and our health publications generally, and a few weeks' or months' stay at the Health Institute.

CALIFORNIA.

For want of proper information, many persons, in coming to California for health, are making a similar mistake to that which thousands make annually in visiting Colorado. They get the impression that there is something wonderful in the climate of these countries that will certainly cure them without changes in their habits of life. Persons far gone with consumption will make the tedious and expensive journey to this State in the vain hope that California will make them well. But the journey and the change of locality cut short their lives. Some hasten home to die, while many others are buried here.

If those who come to California in the first stages of disease would adopt proper habits, they would recover. But too many who emigrate to this State pursue worse habits of life than before. These seem to regard the far-famed reputation of California for healthfulness as a sort of life insurance, and a permission to live in violation of the laws of life and health. Their course is about as inconsistent as that of a wealthy gentleman of Denver, Col., who took an expensive and wearisome journey over the Snowy Range, to the Hot Sulphur Springs in Middle Park, to find relief from rheumatism. He took along a driver and other attendants, six horses, covered wagon loaded with such provisions as hams, lard, pepper, salt, vinegar, mustard, in abundance, a keg of ale, and a full supply of tobacco and cigars. This gentleman spent his time in eating and drinking, smoking and chewing, and taking baths in that dirty sulphur water, so hot that any white man would come out of a ten minutes' bath nearly as red as a boiled lobster. No one before us at this spring had ever suggested the idea of cooling off gradually, and toning up the system by using the pail-pour of cool and still cooler water.

Our Denver rheumatic of course found present relief while in the hot bath. And not knowing how to come out of it, of course took cold. His rheumatism was worse the next day, and of course must have another hot bath. Being separated from his business, where but little was going on, he felt restless, and of course filled up his leisure time eating and drinking his doubtful rations, and in smoking and chewing tobacco. After running the campaign on this wise for about a week, and finding himself no better, but rather worse, he pro-

nounced the whole thing of visiting Central Park for health, a humbug. So, after mustering his forces, he made all possible speed homeward, feeling that he had been greatly cheated. He visit Central Park again for health? Never!

Now if this gentleman had stayed at his Denver home, and there quit his ham and lard, pepper, vinegar, mustard, ale, and tobacco, and had taken a warm bath daily in a proper manner, using pure rain water without sulphur or any other dirty thing in it, he would have forgotten his rheumatism in a few weeks, and would have been laying a foundation for health in after life. Such sufferers from rheumatism usually find relief at the Battle Creek Health Institute in a few days or weeks at most.

There is no country beneath the broad canopy of heaven where people should be more healthy than in California. And yet there is a great deal of suffering in this State from different diseases, and especially from rheumatism, neuralgia, catarrh, and difficulties of the throat and lungs. The common sicknesses of the country are the result of bad habits of eating and drinking. This is a land of abundance, luxury, and dissipation. Gluttony and drunkenness abound. And in spite of the purity of the atmosphere and other things conducive to health, sickness and premature death are as common here as in other lands.

But we wish here to speak particularly of the principal cause of the before-mentioned diseases, which we decide to be the result of damp houses and damp beds during the rainy season. Very many of the houses of California are built without chimneys, except in the one-story rear-part used for a kitchen. The main part of the house, above and below, has neither fire-places nor stoves. The rooms become damp and moldy, and during continuous rains their condition cannot be improved, in point of dampness, by opening doors and windows.

Daniel, in the lion's den, without the angel, and the three worthies in the fiery furnace, without the form of the fourth, would have been nearly as safe as a feeble person would be sleeping in the spare bed of one of these rooms during the rainy season. Paper, lying in such a room during a few days of rainy weather in December, had to be dried before it could be used. What, then, must be the condition of that spare bed when every thread of every part of it is equally damp? Sleeping in beds every

night in rooms that cannot be heated and dried, improves their condition somewhat; but this is done at the expense of suffering from colds, catarrh, rheumatism, neuralgia, and pains in the throat and lungs.

Persons of great vitality may scarcely feel these difficulties arising from damp beds for several years, while feeble persons cannot bear up under them long, and those inclined to consumption are sometimes cut down very suddenly. A consumptive lawyer of this city was carried to his grave in just one week from the day he was hopefully writing at his office. The present rainy season has been the hardest known in the country for twenty years; and the people, not knowing how to guard against the evils arising from damp rooms and damp beds, have met the unparalleled rains and perpetual dampness of the season with heavy loss of health.

Soon after our arrival in California, we visited the home of a worthy friend. Our advent, late in the evening, was unexpected. A fire was immediately built in the spacious room of his large new house. But only a part of the windows could be opened, and probably none of them had previously been open for several weeks. The room and bed were thoroughly damp. The heat of the fire only warmed up the dampness and drew out the moldy scent as the old-fashioned hot biscuit would draw out that peculiar scent from strong butter.

But what could be done? It was getting late, and we were weary. So Mrs. W. warmed the sheets and put under them a fur robe, and, not having another safeguard above the sheets, we put on the damp clothes and sought rest for the night. But we soon discovered that moisture was gathering on the back of the hand next to the damp clothes. We therefore, as the last extremity, put on our overcoat, drawers, and stockings, and tied a handkerchief on our head, and with these precautions determined to risk it.

But in the morning we were satisfied that we had taken cold. And it was one of that kind of colds that a man feels from head to foot, and grows worse, and has the hold on to it; indeed it did, waking up old rheumatism, and finally settling down into the sharpest kind of neuralgia in the face, that would not let go until the dentist removed one of our front teeth. And Mrs. W. suffered with inflammation of the eyes over a month.

By this time we were thoroughly aroused to

meet the evils so prevalent in this country. We immediately purchased one more stove, and run the pipe through the sleeping room above. We have since run three stoves in a small cottage, which has kept all our rooms and beds thoroughly dry. And we have never been so free from anything like colds, and coughs, and throat and lung difficulties in any country for so long a time during the cold and damp season, as we have since we adopted the policy of meeting the potent enemy of this country with fire.

It was when California was new that it received its reputation for healthfulness. Then the whole family would live in a house 12x14. It was the kitchen, dining-room, parlor, and bed-room. The fire of the cooking stove kept all dry, and the inmates were healthy and well. But in the growth of the country, as wealth and fashion have erected large ceiled houses, without means of warming them, California is losing its reputation for healthfulness.

J. W.

Santa Rosa, Cal., March 16, 1874.

Erroneous Physical Appetites.

WE have just finished reading fifty pages on the bearings of erroneous physical appetites upon the moral, intellectual, and Christian character, written more than a quarter of a century ago. The volume is from the pen of L. B. Coles, M. D., "Fellow of the Massachusetts Medical Society, and Member of the Boston Medical Association."

While this able work, viewed in the light of science, is worthy of its title, *Philosophy of Health*, it is also a powerful appeal to the hearts and consciences of men from a moral, intellectual, and religious stand-point, to abandon wrong habits of life, and adopt those in harmony with the laws of life and health. With pleasure we shall enrich the columns of the REFORMER with liberal extracts from this invaluable work from time to time, and bespeak for them a careful perusal.

The reader will please bear in mind that extracts from the *Philosophy of Health* are not from the pen of any new-school fraternity. They are the productions of an experienced, intellectual, honest, physician of the old school, to whose true, philanthropic soul facts in the case and the well-being of his fellows were dearer than position, and of superior value to cash.

The Philosophy of Health reached its thirty-seventh edition and forty-fourth thousand in 1860. But, probably, from want of public patronage because of its fearless style in reproving the indulgence of appetite, it went out of print about ten years since. It contained too much truth to stem the current of popular indulgence. But although in this respect, as a volume, it is dead, it "yet speaketh." Dr. Coles says:—

"The moral bearings of erroneous physical appetites is a subject rarely discussed, either by physiologists, philanthropists, or theologians. Yet it is one of vast importance, and ought to draw forth the intellectual and moral energies of those who are devoted to the elevation and salvation of the human race. It is one which ought especially to come from the pulpit, as a part of that gospel which was instituted for the eternal well-being of men; one which every minister of the gospel should make familiar to his own mind, and give with clearness and force to the people.

"Every gospel preacher ought evidently so to study the laws of physical life, and their bearings on the soul, that he may be able to speak on this subject correctly; and, by an example of obedience to physical law, to preach it forcibly to his people. He should urge them, by precept and example, to 'abstain from fleshly lusts which war against the soul.' It has fallen to me, in the providence of God, to present this subject, during seven years past, on almost every Sabbath, in different churches throughout the Union. And many have seemed ready to awake from the lethargy of unconscious sensualism, and free themselves from the despotic reign of unnatural animal appetites.

"BEARING OF ERRONEOUS APPETITES ON
MORAL ACCOUNTABILITY.

"Every indulgence of any unnatural appetite produces a morbid state of the physical system. Every indulgence at war with natural instinct is at war with the healthy condition of every function of organic life. Appetites which the Author of our being never instituted are so many violations of natural law, which is the law of God; and they secure for the offender, sooner or later to be administered, a certain and unavoidable penalty. Every such violation of law is a sin against physical life, exposing us to physical suffering; and, when it is done consciously, it is a sin against moral obligation toward God, to be met on the day of final Judgment.

Hence the importance of trying to know the difference between the instinctive attributes of our being, and the destructive lusts which are made by habit; that we may neither be found sinning against our own bodies nor the Maker of them.

"God, the Creator of our bodies, has arranged the condition of every fiber and function, and has pledged himself to maintain their right action, unless disturbed by some foreign agency, till age shall wear out the cords that bind us to life. Every law governing the human system is as truly divine in origin, and character, and authority, as are the teachings of the Bible. And every unnecessary and wanton deviation from obedience to this law is as certainly a sin as a violation of gospel precept. Hence we are as truly under obligation to know and obey the former as we are the latter. There are instances in which it may be necessary to transgress the laws of health, to answer the demand of some higher obligation, as in cases of illness in the family, where loss of sleep and other privations are unavoidable in the discharge of obvious duty; but when we intelligently violate law for no justifiable end, we commit sin against God as certainly as though we commit robbery.

"All the kingdoms of nature reveal the law of God; but nowhere is this command 'so fearfully and wonderfully made' to speak out to an intelligent mind as in our own physical structure. Here has Jehovah written his law, not by amanuenses, or inspired men, neither on parchment nor on tables of stone; but by his own almighty finger, upon every living fiber and function of the human body. To needlessly transgress a law of life is therefore a violation of the law of God; and from the physical punishment of that sin there is no escape and no redemption. No propitiatory sacrifice has been made for this form of transgression. In some way, sooner or later, the suffering must come. Every transgression of physical law, committed consciously or unconsciously, unavoidably or wantonly, will receive the penalty made due in natural law; and, as just stated, if it be one which is committed under light, and for no worthy object, it becomes not only a sin against ourselves, but a sin against God. The physical penalty may appear in the form of sickness, broken constitution, premature decay and death, or in all these forms conjoined. The violation of moral obligation, with all its evils

of a moral bearing, must be met when God shall call us to a final account.

“Whoever indulges in any unnatural luxury produces a morbid action in the system, disturbs the equilibrium of organic vitality, and lessens its native vigor and durability. And this disturbing process is generally so insidious in its course, and so unrecognized in its final developments—for nature will bear abuse silently as long as she can—that the offender does not perceive the cloud of wrath that is gathering over him till he is pelted by the storm; and even then he may be so ignorant of the laws of organic life and their penal code, that he knows not wherefore he is punished. He groans under pains and prostration which he cannot account for, and calls it the common lot of mankind, or the providence of God, when it is only the final issue of a long warfare between nature and his own habits.

“If a man would seek to live for no higher purpose than his own personal enjoyment, let him know and obey the laws of his own physical being. He who says, ‘Let me live while I do live,’ and seeks enjoyment by indulgence in morbid appetites, is committing a mighty mistake. He is practicing the very worst kind of humbuggery, deception, and knavery upon himself. While he expects gain, he experiences loss; and one which perhaps cannot be measured by any ordinary medium of computation. Whoever expects to gain by stepping out of nature’s path—a path which Deity has marked out for him—into one of his own designing, cheats himself egregiously.

“He who tries to be wiser than God makes himself a fool. Nature’s path is wide enough for any man’s footsteps. And a benevolent Providence has strewed it richly with varied luxuries for his sustenance and enjoyment. Deity has given us natural appetites which, if rightly indulged, will secure physical happiness and longevity. But, if we use those appetites wrongly, or create unnatural ones, and indulge them in any degree, we pervert nature, and take all the responsibility of painful consequences upon ourselves. We condemn the arrangement of Heaven for our welfare and safety, and cast ourselves upon the boisterous sea of life, without compass or rudder, to be tossed, and driven, and dashed upon bars and reefs which stand thick outside of nature’s channel.

“The Creator has given us these bodies to

be our habitation—a dwelling adapted to our highest comfort and welfare. It is now a habitation fitted up by the Creator, of which he should be a faithful steward and tenant, till called hence to give account. But if he wantonly destroy that dwelling, suddenly or gradually, by setting it on fire to enjoy the splendor of the flames, or the grandeur of the lighted clouds of smoke, or by gradually digging away the foundation on which the vital structure is based, he stands charged with the crime of suicide before Heaven, and must answer to it in the day of Judgment.

“Hence the importance which attaches to a knowledge of the structure and functions of organic life. People comparatively are intelligent upon every subject but this. They know nothing of their habitation, or how to take care of it. They have never even looked in upon many of its apartments, and especially upon those which are the most elevated and important. They seem content with living forever in the very lowest room—the underground, basement story—satisfied with groveling in mere earthly and sensual things, to the entire neglect of the vacant and unfurnished higher portions of their physical being, built by the Creator for the exercise of intelligence. They are content with living as menial servants, rather than walk up into a higher apartment, and be the prince of the palace. They choose rather to be the brute portion of human nature than to rise to the honor of being the soul of humanity, to dwell at a height which is but a little lower than the angels.

“Deity has put every man under obligation to his own being to take care of his habitation, and under bonds to Infinite Benevolence to take care of it for the purpose of his service and glory. His body is not his own; it belongs to Him who made it. Hence it becomes the duty of every individual, for his own sake, and the sake of God, to inform himself on the laws of organized life, and religiously obey them. It is as truly a duty to read and be informed on this subject as it is to study the precepts of the Bible. The study of the Bible first, and the study of the laws of life next. There is nowhere to be found so great a cause of human suffering as that of ignorance on this subject. Intelligence is the first step toward improvement. If we shut our eyes to light, for fear of its showing sins which we are unwilling to forsake, our criminality will not diminish. There

are, perhaps, none so guilty as those who can see, yet will not see. When we shut our eyes to hide our sins, we not only admit the truth of our criminality, but take a course adapted to harden the heart.

"Whoever turns away from light in one case prepares the way to disregard light in another. Whoever violates moral obligation in one way prepares himself for violating it in another. If we treat our own highest earthly interests with wantonness, we violate principle, which prepares the way for a transgression of it in any other case where temptation assails. He who will be reckless of his own interests will be likely to be regardless of those of others. He who will defraud himself for false gain will be more likely to cheat others under similar temptations. He who will knowingly murder himself, even by degrees, is more likely to sacrifice the lives of others. Like progress in the commission of crime against society, every violation of principle in eating and drinking blunts the perceptions and admonitions of conscience. He who will smother conscience, because that monitor speaks the truth, to gratify some sensual passion which he knows is ruining himself, will be more likely, from desire of some selfish end, to sacrifice the peace and welfare of others.

"As before remarked, it is as truly a sin against Heaven to violate a law of life, as to break one of the ten commandments. In this statement, no comparison was attempted in the magnitude of crimes. This is a matter which no finite mind can fully measure. Yet, not only is a violation of physiological law as truly a sin as theft or robbery, but some comparison may be made in the magnitude of the two crimes. Let us take the sin of highway robbery on the one hand, and that of—gluttony?—this is considered a sin of no small magnitude;—alcoholic intoxication? this, now, is also considered a notable crime;—tobacco-using, a habit as yet uncriminated by public sentiment, may represent the other side of the antithesis.

"A man goes out into the highway, and robs his neighbor to the amount of ten thousand dollars. He violates that law which says, 'Thou shalt love thy neighbor as thyself,' by taking the money of his neighbor, and appropriating it to himself. The magnitude of his crime, so far as its outward practical bearings are concerned, amounted to the sum of ten thousand dollars. Let us put this sum upon

one page in the account. Upon the other page we will note, so far as practicable, the amount of damage done by the tobacco habit, and see which is the heavier crime. And while this habit is singled out, it is intended to illustrate, in a degree, the criminality of every other vice which enters the inclosure of the soul through the mouth.

"The tobacco devotee is every hour of the day undermining his vitality. He is creating a morbid action of his nervous system, increasing the speed of the circulation, adding from fifteen to twenty strokes per minute to the pulse by a single cigar, taking the essence of the weed into the blood, and producing a morbid state of all the fluids and solids of the whole body, and at the same time spitting off that from his mouth which was designed by the Creator, in its pure state, to be carried with the food into the stomach. By this process, he is probably cutting off twenty-five per cent of his natural period of existence. He is cutting off from fifteen to twenty years of his natural life. How much is this to be reckoned in dollars and cents? How much would he give, when laid, conscious of the facts in the case, upon his premature dying bed, to have life continued to its natural terminus? If the sum can be named, we will set it down.

"How much are his services in the world to be reckoned worth for the same period of time, provided he is living for some purpose worthy of a man? Then, too, while living, he has been constantly diminishing the natural developments of mind and soul, by impairing the body, the only medium through which they speak out to the world. How much is this loss to be reckoned in dollars and cents? He is also carrying morbid influences beyond himself into his posterity. He is not only robbing himself and the world of a part of his natural lifetime, and a part of his energies, but is robbing his own sons and daughters of that which is beyond all price—that which millions of gold cannot buy. For no one can keep up a morbid action in his own person, and that especially which directly assails the nervous system, without transmitting a measure of that morbid influence into his posterity—an influence which may reach even to the third and fourth generation. There is, indeed, no such thing as describing the boundary of its agencies. Like the stone cast into the sea, it moves the waters of the ocean. How much is this damage in dollars and cents?

"Then, again, every man guilty of such a habit, is, on an average, leading probably some half-dozen young men and boys in the same sensual and ungodly course, by his example, to incur all the damages and the guilt which are filling up the measure of his own accountability. Now, what is the magnitude of this man's crime as it will probably appear in the day of Judgment? What is the amount when put in dollars and cents? What is the amount of robbery committed when all the bearings of his course are reckoned up? Will it amount to ten thousand dollars?—or will it be an amount beyond all computation? Who, then, is the greater sinner in the light of eternal truth, the man who destroys himself and others by sensualities, or the man who committed this highway robbery of ten thousand dollars?"

"BEARING OF ERRONEOUS APPETITES ON INTELLECTUAL CHARACTER.

"The right balance of the mental organs very much depends on a right condition and action of the physical system. If such a course be taken as will excite unduly the animal portion of our being, the standard of intellect is depressed. The sure tendency of any unnatural stimulant or narcotic is to degrade the standard of our physical nature and lower the tone of intellect. Any undue excitement of the nervous system jostles the mental forces; and this process continued, weakens and prostrates them. After a while they come to depend on the physical stimulus to keep them from torpidity, and rouse them to life and action.

"Those who have been accustomed to indulge in artificial stimulants, as a general rule, have only given signs of mental power upon exciting occasions. Instead of being always alive to the ready appreciation of everything that is passing, and the immediate aid of every enterprise and every call of humanity, they only now and then wake up to feel and act, when the unusually exciting nature of the subject, or a large dose of some stimulating drug, breaks through the cloud that has darkened their mental vision. We sometimes meet with statesmen possessing great breadth and depth of intellect, but whose physical habits have been so at war with nature that their talents have become comparatively buried up in the mire of sensual indulgences; and it now requires a power of stimulus, sufficient under other circumstances to produce a mental earthquake, to bring out their buried resources.

"Those who have become long accustomed to excitants and narcotics have found themselves unable to perform much mental labor without them. When one steam of stimulus has become exhausted, another must be got up; and especially when some extra weight of care, anxiety or labor is to be borne, then a fuller draught of alcoholic drink, or a stronger cup of coffee or green tea, or a larger plug of tobacco, must be taken to bring out and goad up the weakened energies of mind to their required bearings. If we would, on all occasions, have our mental forces awake and ready for action, we must preserve the nervous system free from all stimulants. Give to the system healthful nutrition, but no artificial excitement.

"Depression of spirits is no uncommon result of continued stimulants and narcotics. Gloominess of mind is closely connected with prostrated nervous energies; and more or less will every nervous system suffer, perceived or unperceived, that is fretted with stimulants. Where there is extra excitement and its inevitable re-action, continually alternating each other, there must be some degree of damage done to the nervous and mental forces; and when that damage becomes considerable, a degree of melancholy is very liable to ensue. This is true in regard to all stimulants, whether alcohol, coffee, tea, opium, or tobacco; and especially is it true of the latter.

"One writer, relating his own experience in tobacco, says: 'At times I had feelings which seemed to border on mental derangement. I felt that everybody hated me, and I, in turn, hated everybody. I often lay awake nights under the most distressing forebodings. I have often arisen in fitful and half-delirious slumbers, and smoked my pipe to obtain temporary relief from these sufferings. I have often thought of suicide, but was deterred by a dread of a hereafter. In a few weeks after entirely relinquishing this habit, all these things were gone, and my health fully restored.' Many cases of a similar character, from the same and from a similar cause, have come under my professional observation during the last twenty-five years.

"An irritable temper is another evil consequent on the use of stimulants and poisons. Excitants of all kinds, and especially narcotics, disturb the electrical currents of the nervous system. Electricity is constantly circulating in the nerves of the whole body; and on the healthy condition of this circulating substance

depends, not only the vigorous and healthful state of the whole body, but especially a happy and quiet disposition. A disturbed state of the electric circulation is not only constantly tending toward ill health, but to a fretful, dissatisfied, and peevish temper. If, therefore, any one would cultivate a quiet and unruffled temper of mind, let him carefully abstain from every unnatural appetite. Let him be satisfied with the instincts which God has made, and the plentiful means he has furnished for the gratification of them in the varied fruits of the earth, which are palatable to the taste, nutritious to the digestive system, and unoffending to the vital principle.

“Mental imbecility in perceiving and determining against the wrong, is still another result of wrong physical appetites. There is often found want of courage, when a wrong habit is seen, to take up arms against it with a determination to conquer or die. The indulgence practiced so enslaves the mind that its power to govern itself is comparatively destroyed. The reins of self-government have fallen from the hands of the higher man into those of the lower. The higher faculties in human nature have become slaves to the despotism of lust. Instead of judgment, reason, and conscience, holding sway, appetites, even lower than those of the brute, have gained the ascendancy, and they now sway the scepter—appetites contrary to instinct, and such as no brute can be compelled to create. The mental attributes of him who was created a little lower than the angels are down-trodden and buried in the dust, under the iron heel of despotic lust. He who bows to this foul slavery is no longer a MAN, but has descended below the standard of the beasts of the field.

“The people—especially the American people—do not apply philosophy to their eating and drinking. They do not take principle to enforce that self-denial which ought to distinguish them as moral beings; and, failing to use principle here shows signs of too little of it anywhere. He who will not, under light, apply principle to his eating and drinking, will not be likely to be very tenacious of its application anywhere. If animalism bears sway in one case, it is more likely to govern in another. If there be a want of regard for God’s law in our physical nature, there will be less respect for it written anywhere else. If there be a disposition to disregard duty in this, there will

be a tendency toward nullifying moral obligation in any other direction. If men will avoid light shining upon one point of duty, they will probably try to shun it in others. If they will bury a living conscience to avoid its rebukes on their self-destruction, they will be likely to stifle its warning voice on other vices and other crimes. He who would have a clear mind to perceive these things, must have a body with right habits.

“Intemperance of any kind will deaden the native acuteness of the perceptive organs. Over-eating will not only blunt the vigor of bodily health, but stupefy the intellect. Even a moderate degree of habitual gluttony will turn the purest genius into mere animal lustings, which war against God and humanity. There are few men of real genius who will make a god of their belly, because elevated intellect will generally be disgusted with such low and groveling temptations. A high range of thought cannot come down to such sordid things. But there are a few of strange and incongruous compound,—where elevated genius seems surrounded with groveling sensualities,—where, like an oasis in the midst of the desert, mind has no adequate chance for development and expansion; and where, though it may sometimes show its original gigantic strength, there is still no soul to guide it; where things purely philosophic can be deeply fathomed, but where the perception of the right and the wrong, is weak, vague, and erratic.

“Intemperance is of two kinds. One consists in the over-indulgence of natural appetites; the other, in creating and indulging those which have no origin in nature. The Creator has given us an inclination for food adapted to the nourishment of the body. Moderation in its use is temperance; immoderate indulgence is intemperance. But even moderation in the use of things as luxuries which God never made for such a purpose, and things for which he never authorized a taste, is intemperance. To be temperate in the use of natural appetites, is to indulge them rightly; but to be temperate in regard to unnatural indulgences, is to let them entirely alone. “Touch not, taste not, handle not.” Temperance is total abstinence from wrong things, and moderation in right things. Either kind of intemperance is at war with the progress and prosperity of mind.

“If we would keep the digestive powers of mind free and vigorous, we must preserve a

healthy state of physical digestion. There are few things that will so derange and oppress mental efficiency as a deranged stomach. Gloominess, and a foreboding of all imaginary evils, are common attendants. Deranged physical organs produce a morbid state of mind; and then a morbid state of mind increases the deranged action of the body; so that, when this wrong action is once established, the evil consequences increase by constant action and reaction. The origin of the whole difficulty may be in either species of intemperance. It may be by pushing the indulgence of natural appetites beyond their right boundary in respect to quantity, quality, or frequency; or it may be by the most moderate indulgence in things which the Creator never intended for such a purpose.

"The use of meats tends to lessen mental activity. Those especially who are devoting themselves to intellectual pursuits would gain great advantage by total abstinence from them. Their being required for the maintenance of a vigorous muscular system, which is a very popular idea, is a perfect delusion. The bread-stuffs, and other products from the vegetable kingdom of nature, as shown in a former part of this work, contain all the elements necessary for the replenishing of the body; and some of them more largely than the meats. Facts are stubborn things touching this matter. The laboring Irish, who literally use no meat till they come to this country, are among the most hardy men found in the world. They have constitutions as unyielding as brick-bats, and can withstand the hardest knockings like sledge-hammers. But after being here a few years, they often become infirm, and die in early life from adopting American habits.

"If meats were essential to the sustenance of a vigorous body, then a due proportion might be necessary for mental vigor, because of the dependence of mental development on physical soundness. But if meats are not essential to bodily energy, then we can safely put away that which will embarrass the mental powers. In the course of my travels, several cases have come under observation where individuals, for different reasons, had abstained for a considerable time from the use of meats, and they uniformly have said that they had just as much bodily vigor, and a far larger amount of mental activity and force, during that period.

"But it must be remembered that when we leave our meats, we must not cease eating. The

body must have sufficient nourishment. We cannot live upon mere air. But the more simple and unstimulating the food which sustains the body in its healthy and vigorous state, the more active and forcible will be the mental system; while that which deadens the elasticity of muscular fiber stupefies the intellectual forces."

Proper Diet for Man.—No. 3.

PHYSIOLOGICAL EVIDENCES.

UNDER this head we shall consider as briefly as possible the comparative effects upon the human system of flesh and vegetable productions when used as food. While we think we have fully established that the best diet for man is of a vegetable character, we would by no means argue that life cannot be sustained by the use of animal food, either in connection with vegetables or when used exclusively. Indeed, we are willing to admit that by force of long habit man may become so accustomed to its use that he will feel a serious loss when deprived of it. This is sometimes urged as an argument in favor of its use; but it is plainly without logical force, for the same result follows the discontinuance of tobacco, whisky, opium, arsenic, or any other substance to which the system has been long accustomed.

APPETITE.

Neither does the fact that many people have an appetite for meat prove anything in favor of such a diet. We claim, and history abundantly supports the statement, as we shall hereafter show, that whatever appetite man has for meat is acquired. And his capability to acquire such an appetite certainly does not establish his carnivorous nature, but only indicates that he is created with the capability of adapting himself to a great variety of circumstances when necessity requires. The same is equally true of other animals as well. The cat and dog have been trained to eat only vegetable food, and became so fond of this diet that they could scarcely be induced to partake of meat. On the other hand, horses, cows, sheep, and other herbivorous animals, have been known to become so fond of animal food as to greatly prefer beefsteak to the best corn or grass. The cattle of Nantucket have frequently been known, when pressed by hunger during the winter season, to come down to the sea coast and dig up the frozen fish skins buried beneath

the ice and snow, and devour them greedily. But this proves neither that the cat and dog are herbivorous or graminivorous, nor that the horse, cow, and sheep, are carnivorous.

But it may be said that many people are not obliged to learn to relish flesh food, being born with an appetite for it; and, hence, that the appetite must be natural. It would be equally just to claim that the appetite for alcohol and tobacco is natural, and hence the articles themselves harmless, because it is a well-known fact that many boys inherit from their tobacco-using or drunken fathers so strong an appetite for those poisons that they are almost powerless to abstain from gratification. But no one will claim that in the latter case the inherited desire for rum and tobacco will protect the system from their baneful influence, or convert them into healthful, nutritious substances. So it is with animal food. Its use has been so prevalent for a long series of years that each individual born inherits an appetite for it along with other peculiarities and tendencies which are the well-known results of heredity.

It has also been urged that man, by reason of his superior intellect, is enabled to adapt himself to a flesh diet, while the lower animals are left wholly to the leadings of what is termed natural instinct, and so cannot change their dietetic habits at will. The same argument would make alcohol a good beverage for man, but poisonous to the horse, because the latter lacks the ingenuity to prepare the poison by the arts of fermentation and distillation. The absurdity of this method of reasoning is too apparent to need refutation. The evident truth is that the value of an article as food depends upon its adaptation to the wants of the being to be sustained, and not upon the imagination of the individual with reference to it. It is quite possible that the imagination may so affect the system as to interfere with the natural effects of a nutritious substance; but the most powerful effort of the imagination can never render wholesome an article in itself injurious.

OBJECTIONS TO THE USE OF ANIMAL FOOD.

One of the greatest objections to animal food is the fact that in partaking of it a person is in constant danger of unwittingly taking into his system the germs of some foul, perhaps fatal, disease. He knows not but the animal whose flesh he is eating was upon the very verge of dissolution when killed and brought to market. And we are well aware that our domestic ani-

mals, and indeed wild ones also, are subject to diseases of various kinds, just as are human beings. The cattle plague, hog cholera, measles, pork, trichinosis, epizootic epidemics, etc., are familiar names to all. Many a poor sufferer has been obliged to lead a life of wretchedness and misery as the result of diseases of a scrofulous character contracted by eating the flesh of animals affected with those diseases.

Only a few months ago, at the great cattle show in England, a large number of cattle were suddenly seized with violent symptoms of disease. In order to avoid pecuniary loss, their owners killed them, and sold their diseased carcasses for food, an occurrence which is by no means infrequent. Even at the time of this writing, quite a large number of individuals in various sections of the country are dying the most horrible of deaths as the result of eating pork infested with trichinæ. This disease has occurred frequently within the last few years and is liable to break out in any locality at any moment, thus placing in imminent peril the lives of all who allow themselves to partake of the flesh of hogs, no matter how infrequently.

The animals which are slaughtered and eaten in cities are in most instances previously confined for some time in close stalls, breathing again and again the putrid emanations from their own excretions, thus becoming totally unfit to be used as food. So frightfully detrimental to health is such a course that a rat, even when constantly supplied with fresh air to breathe, will die in a short time if confined in its own exhalations. We might describe at length the horrible condition in which animals are often received and slaughtered at the slaughter-houses of our cities; but doubtless it is unnecessary, as all are familiar with the facts which have so often been made public.

The process of fattening is itself one of disease, since it is occasioned by obstruction of the various excretory organs of the body, so that the broken-down, diseased, and worn-out material of the body cannot be carried out of the system, and so accumulates. Indeed, fat, in such cases, is but another name for diseased matter.

But even though the animals killed may be in the best condition possible in regard to health, there is still abundant reason for serious objection. In every animal, even when in perfect health, there is a constant breaking down or decomposition of the tissues. The

products of this action are termed debris, or effete matters. They are the ashes of the tissues, and are among the most virulent poisons known. The quantity of this matter in the body may be estimated by the well-received fact that decomposition of tissues goes on much more rapidly during life than after death. Were it not for the incessant action of the various depurating organs, these poisonous products would quickly accumulate in such quantities as to cause immediate death. It is for this reason that death occurs so quickly from suffocation or drowning, the action of those great excretory organs, the lungs, being suspended.

These matters are principally contained in the veins of the body, and it is owing to their presence that blood so quickly becomes putrescent when taken from the body. When an animal is killed, only the arterial blood is removed, which is comparatively pure, while the dark, impure venous blood remains in the flesh. This is what gives it its red color. By continued washing this poisonous blood may be removed, and the flesh will then appear nearly white in color. If all flesh food were prepared in this way, it would be comparatively harmless. Few would be willing to eat it, however, as, in removing the poisonous blood, it has been almost entirely deprived of its savory and stimulating qualities.

Again, meat is almost always allowed to reach a certain stage of putrefaction before it is considered fit to be eaten. This is thought necessary to render it tender. Especially is this the case in England, where meat is never considered good until it becomes tainted. It is no uncommon thing for butchers to cut from a piece of meat the decayed exterior and send the remainder to their customers.

MEAT A STIMULANT.

But there is still another reason why flesh food cannot be considered as the best suited to supply the dietetic wants of man; viz., it is stimulating in its character. Now, since stimulation is a diseased process, always resulting from the effort of the system to expel from its domain some foreign and unusable material, flesh food must be injurious to just that degree that it is stimulating. Should it be denied that animal food is stimulating, we have only to notice its effects when freely used. We find all the attendant symptoms of stimulation, modified, of course; and we also find the same depression of energy following the augmenta-

tion of vital activity, which follows alcoholic stimulation, though less in degree. It is on account of this stimulant effect that those who use flesh food imagine that it imparts to them more strength than a simple vegetable diet. But we have another evidence of the stimulant character of meat which will doubtless be accepted even by those who are somewhat skeptical. We have already seen that all animal food contains a greater or less amount of foreign material—decomposed tissues and various other effete matters. This can be of no possible use in the system, and so must be eliminated from it in some way. Here we have one of the conditions for the production of stimulation; and now let us observe if these substances do really produce that effect. A few years ago an article known as "Liebig's extract of meat" was introduced to the public, being highly recommended as a condensation of the nutritive constituents of beef. For a time it gained great reputation, but the crucial test of actual experiment revealed the fact that it was quite insufficient to sustain life, and really contained less nutriment than an equal quantity of beef. A more minute examination of the process of manufacture reveals the fact that this famous extract contains only the soluble portions of the meat. This, of course, excludes entirely the albuminous or nutrient portions. The article comprises, then, little else than the broken-down structures and decomposed tissues of the body which are necessarily soluble for the purpose of excretion. In accordance with this fact, Edward Smith, M. D., F. R. S., in his recent popular work entitled, "Foods," in speaking of the article under consideration, remarks that "it should be classed with such nervous stimulants as tea and coffee, which supply little or no nutriment." Since the article in question is derived wholly from meat, and that without undergoing any decomposition, there can be no escape from the conclusion that animal food is in a degree stimulating, and consequently is thus much injurious.

No fact is better established, at the present day, than that stimulation is not increased *strength*, but merely increased *activity* incident upon the agitation and irritation of the vital powers. Indeed, it is fairly proved that stimulants always decrease the vital power and energy in the end. The apparent increase of muscular power which a flesh-eater feels, is, consequently, no more an argument in favor of

flesh-eating than is a similar experience with the drunkard in favor of the habit of drinking whisky.

MUSCULAR STRENGTH.

Stimulation always weakens muscular power, as has been amply demonstrated by extensive experimentation of some of the most eminent savans of Europe. In view of this fact, the conclusion is inevitable that animal food must be prejudicial to the attainment of the highest degree of physical development, since we have already shown that it is stimulating in its character.

Not only is this true in theory, but the principle is well sustained by facts. Among the lower animals we find the strongest individuals are of the vegetable-eating class. We hardly need mention the enormous strength of the elephant, the rhinoceros, the horse, the ox and other animals of like character. The whole class of carnivorous animals does not furnish so fleet an animal as the reindeer, nor so graceful and agile a one as the gazelle.

What is true concerning the lower animals is found to be equally true with man. The early Grecians, especially the noble Spartans, subsisted almost entirely upon the fruits of the earth, as did also the Persians during the period of their greatest strength and prosperity, as may be seen from the following paragraph respecting the latter people from Rollin's Ancient History :—

“The only food allowed either the children or the young men was bread, cresses, and water, for their design was to accustom them early to temperance and sobriety ; besides, they considered that a plain, frugal diet, without any mixture of sauces or ragouts, would strengthen the body, and lay such a foundation of health as would enable them to undergo the fatigues and hardships of war to a good old age.”

Success in war at the time when the Persians and Grecians were prominent actors in the arena of political strife depended almost entirely upon personal strength and prowess, and not so much upon strategy and ingenuity as at the present day. When we find these nations arising from very small and obscure beginnings, and successively becoming masters of the world, we cannot question their superiority over their enemies in the physical development necessary to enable them to compete successfully with all opposition. And in view of the facts already cited, who can doubt that the

frugal vegetable diet to which they restricted themselves was the principal agent in securing to them the hardihood and bodily vigor which they possessed. Another fact which is strikingly confirmatory of this view is the well-authenticated statement of historians that, as the Persians became prosperous and masters of the whole world, they allowed themselves to depart from their simple mode of life, especially in respect to diet. As the result, they soon began to decline in strength, and their armies were no longer able to withstand the attacks of the more frugal but hardy Grecians. The Grecians, in turn, after a time also became addicted to the use of animal food, and so became enervated, and in time were forced to give place to another and more hardy nation. We would not presume to say that the use of animal food was the only cause which operated to bring about the decline and final overthrow of each of the nations mentioned, but we do not hesitate to claim that it was one of the chief causes which, acting both directly and indirectly, served to bring about that result.

Nearly all the nations of modern Europe subsist almost entirely upon vegetable food. At least, such is the case with the laboring classes—those who constitute the bone and sinew of any nation. The lower classes of Norway, Sweden, Denmark, Poland, Russia, Germany, Turkey, Greece, Italy, Switzerland, Scotland, and Ireland, eat very little meat, frequently tasting it not more than once a week ; yet when not addicted to the use of intoxicating liquors, a more hardy, robust set of people cannot be found. The inhabitants of Greece, who live upon coarse bread made from unbolted meal, are remarkably powerful and agile. In truth, from two-thirds to three-fourths of the whole human race have always subsisted upon vegetable food, and yet when they have been well supplied, and other habits have been approximately correct, they have been well sustained.

J. H. KELLOGG, M. D.

—

TYPHOID FEVER.—This disease seems to be common to animals as well as men. A report comes from Canada to the effect that many horses are dying from it in some quarters. It is also stated that the fish in some of the lakes of Switzerland are dying from this disease in such prodigious numbers that the inhabitants are fearful of an epidemic arising from the decay of the hosts of dead fish which lie piled up along the shore.

The Temperance Crusade.

At the present time, there is in progress, in several States, one of the most remarkable temperance movements ever known. It began in Ohio, and has rapidly spread throughout that State and Pennsylvania, Indiana, Illinois, Kentucky, and other neighboring States. The peculiarity of this movement consists in the fact that it is conducted almost wholly by ladies, and is associated with, and, in fact, stimulated by, a strong religious excitement. The plan of operation is somewhat novel, to say the least. The women meet early in the morning in the churches, hold a meeting devoted to prayer and singing for an hour or two, and then sally forth in bands of from a dozen to fifty or a hundred and visit all the saloons, drug-stores, and every other place where liquor is sold, in the city. In order to make the work more thorough and effectual, each city is divided into districts, each of which is assigned to a delegation of ladies who are expected to persevere at their task until every vender of strong drink is persuaded to sign the pledge or give up his business.

These various bands proceed to attack each liquor shop in turn. Their method of storming a stronghold of drunkenness is to call upon the proprietors of the establishment, and by the most earnest entreaties endeavor to persuade him to sign the pledge and abandon his nefarious business. If they are unsuccessful in this, they request the privilege of holding religious services in the bar room. This being granted, as it frequently is, they sing a hymn, and then fall upon their knees and in the most touching and pathetic manner beseech God to have compassion upon them, and to touch the hardened heart of the runseller that he may be induced to relinquish a trade which ruins the souls and bodies of their dearest friends, makes fiends of their once loving husbands, and brutes of their sons and brothers. When they are not permitted to remain in the bar room, they take their position upon the side-walk or street in front of the building, sometimes even erecting a temporary shelter of rough boards or canvass when the siege is prolonged.

The ladies are often subjected to all manner of indignities, and frequently their songs and prayers are entirely drowned by the jeers or the mocking crowd of ruffians which gathers about them, but with wonderful fortitude and heroism, they endure all, and sometimes con-

tinue their meetings for as many as six hours at a time, in the bitter cold, upon the bleak streets. Thus they persevere, day after day, with unabating energy, determined to conquer, and, in most cases, they finally succeed.

The dram-seller can deal with mobs of drunken, boisterous men, he can quell a fight, and boldly face infuriated men with pistols loaded and daggers drawn; but when he sees, kneeling before his bar or upon the threshold of his den of vice, the wife or sister of a once noble man whom he has ruined, and hears her eloquent and heart-rending appeals to God to have mercy upon him, and touch his stony heart, and show him the terrible consequences of his crimes against humanity and God—before such a spectacle as this, even the hardened liquor-dealer begins to feel somewhat uncomfortable, and, usually, at last succumbs to the pressure of influence brought to bear upon him, and allows the ladies to enter his cellar and destroy his goods.

In many towns, every place where liquor was sold has been entirely routed, and not a drop can be obtained in the place, except for *medicinal* purposes! In quite a number of instances the most notorious saloon keepers, men hardened in crime, have even joined the ranks of the crusaders, and have become the most enthusiastic advocates of temperance. At New Vienna, Ohio, a man by the name of Van Pelt, who was a well-known dealer in liquid fire, drenched the ladies who called upon him with dirty water and beer, and published a card, saying, "I have not sold out. They can't buy me out, nor scare me out; neither will I run." The women kept constant guard over his establishment, one party being relieved by another every two hours. Thus every customer was watched and entreated to sign the pledge and reform. After three weeks thus spent, prayer and entreaties prevailed, and he surrendered. The triumph was celebrated by religious services, and a hundred ladies marched to his door in procession amid the ringing of the city church bells. His barrels of beer and whisky were rolled out, and with his ax he himself destroyed that which he declared "had ruined many souls." He confessed that "he had often taken the last ten cents from a man for whisky when he knew the money had been earned by his wife or child." This man appeared very penitent for his crimes, and publicly apologized to individuals. We hope his penitence will be thorough enough to induce him to make restitution to the poor widows

and orphans of those whom he has helped into drunkard's graves, but we have very grave fears that such will not be the case; for we see no account of such a thing in the papers, but, on the contrary, it is stated that after he had addressed the audience, a purse of \$150.00 was made up and presented to him, from which it would appear that the destruction of his liquor was only a sale of it after all.

The ladies seem determined to pursue this work until they succeed in closing every liquor shop in the land. When asked by a saloon-keeper how long their visits would continue, they replied, "Until the day of Judgment, unless you stop selling before that time." In one case they besieged a saloon night and day for four weeks, and at last set apart a day for fasting and prayer. The stores were closed, services were held in the churches, the bells were tolled, and the ladies assembled before the door of the obstinate liquor dealer, and solemnly besought God to convert the hardened sinner; but still he sat unmoved, and smoked his pipe while listening to their songs and prayers.

What will be the final result of this wonderful movement it is somewhat difficult to judge. It is certainly spreading with great rapidity over large sections of country. In view of the terrible inroads which liquor has made, and continues to make, upon society, in spite of laws, it is not strange that the wives and mothers and sisters of the poor victims of this vile monster should become somewhat enthusiastic over the suppression of the wicked traffic. They see their dearest friends ruined for this world and the next. They themselves often suffer for the barest necessities of life that the insatiable appetite for alcoholic poison may be gratified. They see the inefficiency of legislation to effect a radical suppression of the infamous trade, and hence they are led to bring to bear upon the matter all the power of moral force which they are able to exert by combined influence. A remarkable degree of success seems to attend their efforts thus far, and we would gladly hope that a permanent reformation was being effected; but when we look a little into the real character of the movement, and consider the nature and true cause of the evil which is to be removed, we are filled with forebodings that this method of treatment will not effect a radical cure of one of the foulest social ulcers which infects civilization.

Drunkenness is not simply a habit, it is a vice; we may even say, a disease. It is like a

deep wound which may be made to heal at the surface, while corruption and putrescence lie hidden beneath, and will surely break out anew. Any remedy, to be effectual, must strike at the root of the disease and remove the causes. The ultimate causes of drunkenness lie deep in the education of the people. The boy does not become a drunkard in a moment. He does not acquire a taste for the burning, stimulating draught in a week. It is at the dinner table that he takes his first lessons in stimulation, and learns to love narcotic poisons. The rich pastry, the highly seasoned viands, the spices, pepper, salt, and sundry other condiments, the tea and coffee, the flesh food, the whisky-tainted confectionery which his fond mother provides for him, are constantly cultivating in him a taste which in maturer years manifests itself in a desire for intoxicating drinks.

Prohibition of the sale of liquor may help to decrease the frequency of drunkenness, and hence we can say nothing against it, but heartily favor every plan which will assist in removing this terrible stain from the skirts of a so-called Christian country; but we dare not depend upon this as a means of curing the evil. The only laudable method is to destroy the demand. Laws against theft may in a measure regulate this crime, but so long as men are selfish and covetous, stealing will exist. Convert them, and the crime vanishes. So with drunkenness. Educate men in proper modes of life, correct their dietetic habits, teach them to abhor the "nerve tonics" and "stomach bitters" which quacks, and too frequently physicians, recommend, and the demand for liquor will cease. Its venders will be obliged to close their shops for lack of customers, and the distiller will no longer find it profitable to prostitute the nutritious grains to the vile purpose of whisky-making.

J. H. K.

THE GATE CLOSED.—Some people live sixty years without learning when to keep their mouths shut. Indeed, the older they grow, the wider their mouths open. Carlyle somewhere says that what people have need to learn, is the art of silence. A man or woman who is a great gabbler at forty-five is a horrid creature; whether the propensity is hereditary or acquired, it is simply awful. This age shows an unnatural development of tongue. There are two things this generation need to learn—when to say nothing; and, when they say anything, to say it well.

GENERAL ARTICLES.

A RAILROAD DREAM.

"Corrupting the air with noisome smells" is an actionable nuisance.—See Blackstone, page 217, vol. 3, chap. 12—"Trespass" of "Private Wrongs."

SITTING in a railcar, flying on by steam,
Head against the casement, dreamed a curious dream;
Yet I could not think it all a thing ideal,
For though very monstrous, it was very real.

First there came a gentleman in his patent leather,
Collar, bosom, wristbands, overcoat for weather;
In the hight of fashion, watch-key, hat, and glove,
And with air professional—*spit* upon the stove.

Near him sat a parson, telling how the Lord
Sent the great revivals, blessed the preached word;
But my dream discovered he was not above
Honey-dew or fine-cut—*spitting* on the stove.

Next came a trader, pockets full of cash,
Talked about the country going all to smash;
"War and abolition, did the thing, by Jove,"
Tipped his wicker bottle—*spit* upon the stove.

Then a jolly farmer, bragging of his wheat,
Thought his hogs and horses nowhere could be beat;
"Like to sell his Durhams by the head or drove,"
Kept his jaws a wagging—*spit* upon the stove.

Paddy thought 'twas "quare" like, to be sitting still
All the whilst agoin' over bog and hill,
'Twas a glorious conthra, sure, as he could prove—
Equal to his betters—*spitting* on the stove.

Witless, perfumed dandy, putting on his air,
Flourished diamond breastpin, smoked in forward
car;
Talked about our army, "'twas too slow, by Jove,"
Twirled a carrot moustache—*spit* upon the stove.

Little boy in short coat, wants to be a man,
Following example as the surest plan;
Watches gent and parson, copies every move,
And with Pat and trader—*spits* upon the stove.

Soon the flying railcar reeks with nauseous steam,
Ladies almost fainting, children in a scream;
Husband asking lady—"What's the matter, love?
Have a glass of water?"—*spits* upon the stove.

On we go, still flying, not a breath of air,
Fit for Christian people, in the crowded car;
Sickening, fainting, dying, ladies make a move,
Gent throws up the window—*spits* upon the stove.

Now perchance this dreaming was not all a dream;
Think I've had a steaming, traveling by steam;
'Tis a public nuisance, any one can prove,
"All the air corrupting—*spitting* on the stove."
—Mrs. F. D. Gage.

Deacon Gray's Lesson.

DEACON GRAY was assisted carefully into his chair, then his wife mounted beside him. Things were reversed since his long illness—she took the driver's seat and then the reins. As for Dobbin, the faithful old family horse, he was a slow-going beast at the best, such a horse as old ladies like to drive, and the Deacon's wife was verging on sixty.

"Mother's hair was really beginning to turn now," Jane, the eldest daughter, said, (Jane had gray hairs herself), and so it was; but mother, blessed good woman, don't care. She had lived a spotless life, and the peace of her soul had given to her face a sweetness of expression that was far better than beauty.

"Deacon, are you warm enough?" Mrs. Gray always called her husband "Deacon," but now there was a peculiar intonation of tenderness in her voice, never very musical.

"Oh, yes, I'm comfortable. Dear, dear, how sweet the clover smells. I didn't know as the scent would ever come to me again, when I lay in the south chamber, choking for breath."

"Never mind, Deacon, we won't talk of the past now. See Uncle Biah's medder, don't it look splendid? And the corn over there, why, it's growed a sight since yesterday. La! do see Dr. Baird's apple trees, don't they look beautiful?"

"Everything looks beautiful, Marthy," said the Deacon, a light breaking over his rugged and somewhat hard face.

"So it does," and the good woman's eyes were lifted to the sky, across which the softest, whitest clouds were floating with a motion so airy that they seemed like spirits of the upper ether taking forms of grace and beauty.

"Don't care about stopping anywhere, do you, father?" asked the Deacon's wife, as the old horse jogged along.

"Well, yes, guess we might as well get out at the lane."

"Old Joe!" exclaimed Mrs. Gray aghast, "aren't you afraid he'll worry you, now you're so weak, Deacon?"

"Well, no, I guess not, Marthy, he's a poor critter, and—and you know I feel different now about such things. Forty years of health goes nigh to harden a man's heart, Marthy," and he sighed as he spoke.

So Dobbin was reined in at the head of the lane, and Mrs. Gray, making herself a crutch for the Deacon, went toward the homely little house, over whose door, poor and lowly though it was, the honeysuckle wandered, full of sweets.

"If I ever did! Here's Deacon Gray a coming!" cried Joe's maiden sister, smoothing his hair.

"I don't want to see him," said Joe, moving uneasily on his bed.

A CORRESPONDENT sends the following from the *Wyandotte Enterprise*:—"Andrew Carhouse, of the township of Huron, in this county, is the victim of delirium tremens, wholly caused by the use of tobacco. Carhouse has been a temperate man except in the use of tobacco. Joseph Monroe, of the township of Ash, Monroe Co., lies palsied and speechless from the use of tobacco."

"Good morning, how are you all?"

It was Marthy's cheerful voice, and Joe couldn't choose but turn; and when once his faded eyes caught sight of the Deacon's altered face, they staid there, fastened by the expression of pallor—of tenderness that rested on those weatherbeaten features.

"Joe, I didn't know as we should ever meet again," said the Deacon, holding out his hand. "I have thought of you every day since I was laid on my sick bed. How hard it must be for you to stay there month after month!"

Joe's lips trembled a little. These words coming from a man who had more than once reproached him with shiftlessness and shaming, touched his heart.

"Well, yes, it's sort of hard," he answered, "but I s'pose I'll have to bear it. There's them that's wuss off, I guess."

"What can I do for you, Joe," asked the Deacon, his voice still soft with that strange tenderness. "Is there anything you'd like? Is the bed soft enough? Perhaps you could use my sick chair, it wheels about, and you might go to the door, or even outside in it. You'r welcome to it, Joe, only say the word. And anything in the way of jellies, or delicate things that you fancy to eat, and books or papers if you want them. Don't make a stranger of me, Joe; send to me as you would to a brother."

"But you know I ain't a brother—I ain't one of your kind—Deacon, I—"

"Never mind," said Deacon Gray, as sedulously avoiding the argument now as he had before plunged into one; "never mind what your opinions are just now; the Lord sees, and may be he'll bring you round to my way of thinking yet. What I am after now is to make the body comfortable. And I just want to ask your pardon for all my hard ways and ungenerous speeches. I know I've done wrong, the Lord forgive me. I couldn't tell what a difference sickness makes in body and mind then, but I do now. Come, Marthy, we'll be going, and Joe, I'll take it hard if you don't tax me for something. God bless you, Joe. Good morning."

The two had vanished, but it seemed, some way, as if the sunshine streamed more genially over the place they had left.

"Well, I never," exclaimed Joe's sister.

Joe himself was silent for some time.

"What ailed the Deacon?" he asked at last, as his sister came back to his bedside.

"Diphtheria, they said."

"Putty sick, wan't he?"

"Thought he would die; folks said so."

"Well, it's done him more good than all—no matter—," and Joe ended his sentence abruptly.

"To think how he used to fret and fume!" muttered Joe's sister. "And what a blessing

that chair will be, and how you've wished you could get one, and he coming and offering it himself. Well I'll never say Deacon Gray ain't a Christian again, never!"

Meantime the Deacon's wife was lifting the attenuated frame of her husband into the carriage again, her vigorous shoulders his main support. There were tears in her eyes, but she bustled about, looking this way and that, tucking the big shawl over the Deacon's knees, and pressing him snugly back, as if she feared a gust of the strong spring wind would blow him away. Oh! but in her heart it seemed as if she had never felt such wealth of tenderness. The one thing that this good, but severe, man had lacked, had now, almost by a miracle it seemed, been wrought into being, and taken its lodgment in his heart. In his face a new, a holier benignity shone, even on the strongly seamed forehead, and in the deep lines that toil and thought had worn in his cheeks. The eyes, the gray eyes, that only on extra occasions had lighted up with a human beauty, seemed now to have gained an almost unearthly softness.

"Marthy, Christ knew, didn't he?" he asked, in a tender voice.

"Knew what, dear?" The good woman started at her own tenderness—at the unusual term of affection.

"Through suffering,"—and he turned to his wife.

"How to pity us. Oh, yes! and he took it all on himself."

"It was put on me, thank God! I wouldn't have it; no, no! Humanity shrinks from the offering, from the cross. Forty years of health, Marthy, is a fearful test. I don't know, looking at the past as I do now, feeling what I have lost and what I have gained—I don't know as I had grace enough to save me, Marthy. It didn't seem to me once as if anybody need to be sick. Many a time I thought folks give up because they were weak and lazy. But you see God knew what I needed. Stop Dobbin, Marthy; there's poor Stephen's little lame boy. I wonder if something can't be done for him."

So Dobbin was stopped, and the poor child gladdened with a kind word and a handful of coppers that set his face shining. What with delight and surprise, tears came again to the good wife's eyes, for children had rather avoided the Deacon, sterling man though he was.

"I'll see if that boy can't be helped," the Deacon went on. "I've heard that if his father could only afford it, there's a place where he might be cured. He's a fine little fellow, and it is a shame to let him go stumping through life."

"Shan't we turn round now, Deacon?" asked his wife.

"I think I would like to go to Tom Blake's

—he's another cripple, and more likely to be worse than better."

"But, Deacon, you had n't heard, I suppose. The truth is, he was taken to the poor-house."

"Marthy, is that so?" cried the Deacon, the old sternness coming back to his face.

"It is so. He grew so bad that they couldn't find any one willing to be burdened with him, so they just put him there."

"I've heard him say, many's the time, he'd rather die than go there. Poor Tom!"

"Yes, it was very hard."

"We'll drive there, Marthy."

There was another refolding of the shawl, after the good woman had turned Dobbin's dull head in the direction of the poor-house. The Deacon went in, leaning on the arm of his wife, and led directly to the room of the old man, Tom Blake.

Tom looked askance at the Deacon, from whom he had taken many a long sermon—for Tom was as near an infidel as that other godless man, Joe—then at the sight of his pale, mild countenance, the old man faltered, he put up his thin hand, turned aside his face, and burst into tears.

"Tom, I'm sorry to see you here," said the Deacon, placing his withered hand on the old man's shoulder.

"I'd rather you'd seen me in the grave, Deacon Gray," sobbed the old man. "But I won't die here,"—a look of defiance crossed his features—"it shan't be said that Tom Blake died a pauper. No, sir. I'll crawl on my hands and knees at the last gasp, and I'll find strength to do it, too, out of this pauper place."

"Tom, you shan't stay here," said the Deacon, resolutely.

The old man looked up. His face was pitiful to see, all dabbled with tears.

"No, Tom, I know how you feel. When I was choked with that awful sickness, I thought I'd give worlds for one easy breath."

"Yes, and I'm choking in here; every mouthful I eat chokes me."

"You shall come out, Tom; be patient, and bear it as well as you can, you shall come out. If nobody else'll take you, I'll take you myself."

"Oh! God bless you, Deacon Gray! God bless you for a true Christian," cried the grateful man, tears of joy falling from his dim eyes. "I used to say hard things about you, Deacon Gray, because you tried to make me a better man. But the seed you sowed is there, Deacon, and if it takes root and ripens, it will be because I see your faith and your works go together. You've made an entirely new man of me. God bless you, Deacon Gray."

Old Dobbin took a quicker step on his way home—oats in prospect. As for mother Gray, the way she patted and tucked that old shawl, looking up every now and then into the Deacon's

gray eyes with a love that made her old face look angelic, was quite a treat to see.

And as for the Deacon, he thought to himself that he had always held religion as one would an ear of corn, ignorant of its use; but now, Christ had taught him how to strip off the harsh outside husks, and find within the life-giving kernels.—*Christian Monitor.*

Will the Coming Man Be a Hygienist?

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

ONE of the most famous of American writers wrote a series of articles for one of the leading monthlies on this question: "Will the Coming Man Drink Wine?" His argument was conducted with much learning and research, but failed to prove or even give a shade of probability to the proposition which he started to defend; viz., that the coming man will not drink wine. He proved conclusively that wine contains poison, and therefore is not fit for a human being to drink. But this does not prove that the coming man will not drink wine. It is no new discovery that wine is unfit for drink. In a very old book, we read that "wine is a mocker, strong drink is raging." Generations of men since that time, however, have continued to use it.

It is one thing to be convinced that any thing is wrong, and quite another thing to refrain from doing it. Had the writer proved that the coming man will be so thoroughly instructed that a knowledge of the principles set forth in his article will be universally taught, it would still have remained for him to show that his coming man will put these principles into practice in his own life and conduct. The next generation may all learn that wine is poison and cannot be used in any quantities, great or small, without injury to the human system. Notwithstanding this, they may still continue to drink it. Multitudes of those who use tea, coffee, tobacco, wine, and strong liquors, acknowledge that these things are doing them an injury; still they keep on using them. If this be so, what reason have we for supposing that future generations, any more than the present, will abandon their use? It no more follows that men will give up the use of these things, when convinced that they are wrong, than that they will abandon every evil habit when convinced that it is such.

The whole history of the world shows that a great part of mankind never have lived up to the knowledge which they have possessed. The Jews knew that idolatry was wrong. This principle was taught them by patriarchs and prophets, generation after generation. More than this, the history of their own nation showed that idolatry had always been followed by the most terrible judgments. Their sacred

books, moreover, warned them expressly that idolatry would bring about the destruction of their national existence. Notwithstanding all these things, the great mass of the people seemed to embrace every opportunity of running into this very sin. Mankind never have lived up to their knowledge. For what reason, then, shall we conclude that future generations will practice those principles now brought to light in the science of hygiene, provided they are instructed in them?

A friend of mine once made this remark: "I do not believe that your system of diet will ever be generally adopted." To this I made no direct reply. In fact, I had never taken the trouble to consider whether it would ever become universal, or even general. I knew that it was right. I had proved it beneficial. I had, as it were, raised myself from the very grave by its mighty power. I had seen its beneficial effects upon others in very many instances. I had seen the children of this woman, by a partial adoption of this regimen, grow up into perfect giants of physical strength. Because this system was right, I practiced it, little troubling myself whether the multitude would ever adopt it or not.

I believe, as Dr. Trall says in discussing a very important physiological question, "If it is right, it should be advocated, whether people will adopt it or not." This is my theory in regard to the whole hygienic system. There are certain principles which we know are right. These we are determined to advocate, teach, and defend, as long as we live, and we hope to instill them so thoroughly into *some* of the rising generation that they will continue to advocate them after we are dead and buried. We believe that these principles will never die out, but will be represented in the lives and teachings of earnest men and women as long as the world stands. So we are not discouraged in the movement, although we see no signs to convince us that the great mass of the people, in this, or any other country, will ever practice these great, life-giving principles.

With some, however, the main question seems to be, Will these principles ever become popular? They cannot bear to be singular. They do not wish to be different from other people. I believe that thousands are convinced of the truth of this system, who, for the reason I have named, will never practice any of its precepts. Indeed, I know very many people who acknowledge it all and still live as if they did not believe it. We have much of the slavery of intemperance. That is bad enough; but the most terrible slavery is that of fashion. I have known a number of hygienists who boldly advocated this system, lived by its rules, and wrote in its defense; and then, after all, turned back again to what I class along with what an apostle calls the "beggarly elements of the

world." The excuse is that it is so much trouble to be singular.

Will the coming man be a hygienist? In my mind, this question resolves itself into another: Will the coming man be a Christian? All Christians who are honest in their profession must practice what they know to be true. Hygiene is the law of God, written in man's own physical organism, and in the constitution of the material world. This law is sacred, binding, imperative. To disregard it, is to sin against God. Hence it is an imperative duty for Christians to become hygienists.

As time goes on, science will bring these laws more and more into the light of day. Will men accept them? obey them? live by them? If they are Christians, they must. As yet, the great multitude of Christians disregard them. They sin ignorantly. By the labor of those now engaged in the hygienic movement, all honest Christians will, sooner or later, be enlightened in regard to these eternal principles of right. Then they *must* accept them, live by them, embody them in all their life and conduct. In no other way can they remain Christians.

My only hope for the hygienic movement is that sooner or later it will become identical with the cause of Christianity itself. I have no expectation that the unchristianized masses will ever practice these principles, since they never have lived up to the light they possessed, in this or any other direction. Hence my answer to the question is, If the coming man be a Christian, he will be a hygienist.

Errors.

THE world is full of errors of all sorts. No subject can be mentioned concerning which some person does not hold some erroneous, perhaps absurd or ridiculous, notion. Men who mean well and honestly do their best are often led into error unwittingly, but such persons are always willing and anxious to correct any false impression which they may have conveyed, inadvertently or otherwise.

Some errors are sad, and greatly to be deplored, because they affect the health, enjoyment, or, it may be, the eternal happiness of individuals. Others are of less importance, affecting only material interests. Still others are ludicrous; but all are unfortunate, and hence it is certainly the duty of every person to do all in his power to correct such errors as may fall under his observation.

Of the ludicrous class of errors, perhaps the most amusing of all is an error made in the attempt to correct another; and especially does the matter become ridiculous when a very palpable error is made in the attempt to correct a reliable and well-founded statement. An er.

ror of this description has recently fallen under our notice, and we call attention to it with full confidence that the author of the blunder will gladly undeceive those who may have been so unfortunate as to receive erroneous impressions from his statements.

In the last issue of a cotemporary health journal, in the department headed, "Editor's Studies in Hygiene," we find a short article entitled, "Errors," which contains an answer to the following question:—

"Is the following statement from a leading journal correct? 'During the life of a man the heart performs 104,000 pulsations every twenty-four hours, 37,000,000 per year, and in a life of eighty years nearly 3,000,000,000, without ever stopping, as a stoppage would be at once fatal to the individual.'"

The following is the answer:—

"Suppose the heart beats seventy times in a minute, then in an hour it would beat 420 times, in a day 10,080 instead of 104,000 times, and in a year 3,679,200 instead of 300,000,000. We have been taught to believe that figures never lie, but these figures seem to have been made to lie in spite of their general reputation for truthfulness. The above item is going the rounds of multitudes of papers and magazines. It is false all the way through. For instance, it says the heart never stops. If you will lay yourself quietly back in a rocking-chair and listen to the beating of your heart, you will observe that between every pulsation there is a very short cessation of action—a little rest."

In his answer, the writer says, "We have been taught to believe that figures never lie, but these figures seem to have been made to lie in spite of their general reputation for truthfulness." The writer probably meant to apply this remark to the paragraph quoted by his correspondent; but its connection with the context would strictly require its application to his own figures. Taking this view of the case, we must consider the statement wholly true, as a little scrutiny will substantiate, for if the heart beats seventy times per minute, it must beat 4200 times in an hour, instead of 420 times as is stated. Curiously enough our mathematician seems to have dropped a cipher at the very outset of his computations, and, consequently, all of the following results were erroneous. It must be a very slow pulse indeed which only beats 420 times an hour, or seven times in one minute!

Again, the writer objects to the statement that the heart never stops. He is probably ignorant of the elaborate experiments of Dr. J. Bell Pettigrew which have fully demonstrated the fact that the motion of the heart, as a whole, is constant, with no intermission. Some portion of the organ is moving every instant; one portion rests at a time. With delicate in-

struments, the sound of the heart's action is found to be constant, though swelling into louder impulses at regular intervals.

As before remarked, we hope and trust the gentleman who was so unfortunate as to fall into this little error will do his readers the kindness to correct it as soon as expedient.

K.

Spinal Meningitis;

OR CEREBRO-SPINAL FEVER, SPOTTED FEVER, ETC.

THE prevailing habits of life, of diet, and of dress, all tend to obstruct the natural functions of the body. These various disturbances are the direct causes of most of the ills of life. Talk to people of their wrong habits, and the answers are, "What will people say?" "It won't do to be odd," "We may as well be out of the world as out of fashion." Sickness is the most expensive business with which we have to do. We are liable to it at any moment, still we are least prepared for it of any event of life. There is but one way to secure sound health, and that is by acquainting ourselves with nature's laws and obeying them.

New phases of disease are constantly arising, and will increase more and more, claiming victims from all ranks in life, who pay but little or no attention to knowledge of hygiene. These constant changes in disease render the old system of therapeutics valueless, and compel the medical student to look elsewhere for the weapons with which he is to combat disease if he expects to be successful in the healing art. The sphere of the physician is not to cure disease. That is nature's department. All he can do is to place the patient in nature's care, he supplying the most favorable conditions and preventing all undue interference.

It is often painful to the physician who is disposed to be honest in dealing with the sick, to see his advice disregarded, and the patient resigned to those who will deal out strong drugs which ruin the constitution and produce many new forms of disease. This course is often followed with spinal disease as well as others.

Meningitis is an acute epidemic disease of the central nervous system, and is usually ushered in by a chill which may be either slight or very marked, and may last from a few minutes to twenty-four hours or more. It presents many typhoid symptoms, and often simulates diphtheria. The pulse is variable, but lacks firmness from the beginning, and the indications of defective tone increase as the disease progresses. The respiration may exhibit no very marked disturbance. The aspect of the patient will depend much upon the degree of pain present. The countenance is usually rigid, constricted, eyes diffused. The surface is sometimes moist, and at other times dry and con-

tracted; while much of the time the pulse may be but little above the normal standard. There is, generally, tenderness over the surface, irritability and restlessness; so much so, that the inflammation in the back may be overlooked. In many cases there may be pains of a burning character extending the whole length of the spine and down the extremities which may be aggravated by pressure. The pains are often of a rheumatic character, and may be mistaken for diphtheria.

As the disease continues, there will be rigidity of the muscles of the neck and back. There will also be feebleness, involuntary motion, and partial paralysis in the lower limbs, and when there is much effusion in the brain, complete paralysis.

Generally, there is great pain in the back, with tenderness over the surface of the body, and great hunger, or entire loss of appetite.

In severe cases, tetanic spasms will recur at variable intervals, causing the patient great distress; and in many cases there seems to be a great fear, even sometimes of those who may be present. The symptoms often simulate those of hydrophobia, the patient frequently tearing the clothes and even the skin from the chest.

At this stage, no one can observe the agony of the poor sufferer without feelings of the deepest sympathy. The disease may last from one day to ten weeks. When the tendency is toward a fatal termination, there will be listlessness and delirium, with increased spasmodic symptoms, coma, or irresistible drowsiness, complete exhaustion, and, finally, death, from asphyxia or suffocation.

CAUSES.

Exposure, changes of temperature, colds, errors in diet, over-labor, sudden chilling of the body after violent exercise, animal poisons, etc.

It may be mistaken for typhoid fever and other diseases; but may be distinguished by the great irritability of the nervous system, the tenderness of the spine, and the persistent pain; generally, a sure diagnostic symptom is the constant tendency to draw the head and neck backward.

After diseases may arise in many cases, as deafness, paralysis, epilepsy, idiocy, etc.

The appearances after death are, determination of blood to the brain, a thickened condition of its membranes, with softening of the brain and spinal cord, so great in some cases that all traces of organized structure are lost. In many cases, there will be found enlargement of those parts, with fibrous exudation and redness of the organs.

TREATMENT.

The hygienic treatment, so far as we have yet learned, seems to have been the most successful in this malignant disease. At the pres-

ent writing, there comes a letter from Missouri, stating that with drug treatment from 75 to 80 per cent of those afflicted with this much-dreaded disease die. When any of the above symptoms occur, if the patient is of a strong constitution, the most heroic treatment may be given at once, and should be repeated two or three times a day until the violence of the disease subsides. Give a hot sitz and foot-bath at a temperature of from 98° to 100°. Let the patient sit in the bath for two minutes, the feet and body being well covered, the blanket closely tucked around the neck. Keep the head, which is uncovered, wet with cool water. After two minutes, pour more hot water into the bath tub, and gradually raise the temperature to 105° or even 108°, and keep the patient in the bath 10 to 20 minutes. Then put him into a wet-sheet pack at an agreeable temperature, and let him remain in from 40 to 60 minutes; after which, take him out and give a wet-sheet-rub (cool), rubbing vigorously; or, simply wash the whole body with cool water. This treatment may be repeated every day or every other day as the case may demand.

Fomentations will be found a very efficient means of subduing pain in the back and spine when applied the whole length of the back. Also, the application of alternate hot and cold compresses to the spine, and often the application of ice to these parts, will be found the most ready means of subduing the pain, irritability, and restlessness. These applications may be repeated from one to four times a day, and should be of from five to fifteen minutes' duration.

The head should be wet in cold water before any other treatment is given; and if there is much heat, pain, or congestion of the head, a fomentation of ten minutes' duration should be given over the head and neck. When the patient is of a feeble constitution, or is a child, the chief treatment should be a sitz-bath 98° to 105° for eight or ten minutes with thorough hand friction over the entire body, but mostly over the spine; and on taking the patient out of the bath, wipe dry, or if too weak, wrap him up well and put him to bed. When well rested, give a general wash in tepid water; after which, put on clean clothing and let him rest.

In ten or twelve hours, if the patient seems restless or the violent symptoms return, give a hot pack; that is, wring out a woolen blanket from water as hot as can be borne, and wrap the patient up well, and let him remain in the pack for thirty to forty minutes. On taking him out of the pack, give a general sponge bath, and after dressing, let him rest as before.

Wet compresses may be used during most of the intervals between treatments, on the chest, head, and back, if the patient can bear them. Fomentations will be found very useful to re-

move pain or congestion in any part of the body, with children as well as adults. When treatment is decided upon, it should be given with firmness and decision, yet with gentleness and discretion.

Regularity in treatment and diet should be strictly observed, so that nature's work may not be retarded by wrongly applying these hygienic means of recovery.

We strongly object to any one's being allowed to attend the sick to whom the patient would be likely to take a dislike, or who would be constantly urging to do something to hasten a cure, as such interference may cause the death of the patient. Neither should spectators be allowed to look upon the sick for a great length of time, as this practice often greatly annoys patients, and excites the brain and nervous system, even to a fatal termination.

Generally, all visitors are anxious to see the sick and render some assistance; but it will be much better to request them to aid in some other work outside of the sick room. All will feel better for having rendered some aid, and the invalid will thus be spared much annoyance, and the recovery will be rendered more certain.

The disease may be slow in its appearance, or it may be rapid—destroying the patient in a few hours. Therefore, when a patient complains of pains in the head, back, and limbs, suspicion should be aroused at once, and prompt measures should be taken to arrest its progress, especially so, if the surface looks shrunk or pallid.

In the rapid form, the patient may sink into a stupor early, the pulse become quick and wiry, respiration difficult, convulsions and partial or complete paralysis occurring, and a fatal termination may result within forty or fifty hours, or even less time.

In the mild form, the stage of incubation may last from one day to two weeks. In either form, the patient may be slow in recovering. The fever may linger from day to day in some cases, and still the patient improve generally; while in others, there may be freedom from fever, the appetite, digestion, and sleep, seem to be good, and yet the sufferer gain no strength, and after several weeks he may die of nervous exhaustion or muscular atrophy.

We would caution all against giving much active treatment during convalescence, as much harm may be caused by it. Time and patience will do more than rash treatment.

The diet should be light, but nutritious, consisting of graham, rice, or oatmeal gruel, as the patient may choose. The sick should never be urged to eat while there is no appetite, as nature, for a good purpose, withholds the appetite; and food introduced into the stomach at such times will be productive of more harm than good, from the fact that but little gastric juice enters the stomach during severe sickness.

As a consequence, food might remain there for a long time without being digested.

As the patient improves, a more substantial diet may be given, consisting of fruits, grains, and vegetables.

J. H. GINLEY, M. D.

Why Not?

We clip the following from one of our most distinguished Eastern journals:—

“Now that the women have set the example of publicly attacking popular vices by prayer and singing, it is not unreasonable to suppose that the men will follow it.

“But how will they follow it? The women who are trying to break up the business of liquor-selling insist that the liquor-sellers are making drunkards of the husbands and sons of the praying crusaders. Intemperance is, according to them, a masculine vice, and their campaign is a war of one sex against the vices of another. What if the men should presently, swayed by the magnetic influence of the re-riyal spirit, essay to emulate the female war on masculine vice by an organized attack on the vices of women? Men certainly have not a monopoly of vice, nor women of prayer; and praying bands of men may yet undertake to rescue women from the dominion of the vices and fetters of fashion.

“It would undoubtedly be a curious sight were a band of thirty men, including gray-haired lawyers and beardless brokers' clerks to enter, some pleasant morning, the establishment of a prominent *modiste*, and announce their intention of continuing prayer and singing until the proprietor should consent to pledge herself never again to pander to female extravagance by making and selling costly dresses. If systematic attacks of this kind were to be made on all the dress-making and bonnet-making shops in this city, it is probable that they would produce at least as much effect as the women's prayer-meetings have produced upon Western liquor-dealers. A like plan of campaign carried out against the purveyors of false hair, and of the corsets, which ruin our women for time and eternity, might accomplish vast results. Perhaps some veteran dealer in “switches” and curls might be induced, like the rumseller Van Pelt, to destroy her stock-in-trade, and to accompany the praying bands in the character of a converted hair-seller. How forcible would be his appeals to hardened and obstinate hair-sellers to turn from their demoralizing trade, and no longer to pander to the depraved desires of their sex! Or with what eloquence would the converted corset-dealer describe her joy when she saw her last “glove-fitting corset” perishing in the flames, and felt that nevertheless would she return to the infamous trade of selling that which

squeezes the vitals of the women of America. "After all, were this seemingly exaggerated vision of masculine religious enthusiasm to actually come to pass, we should only be seeing in the streets of New York, what Florence saw in the days of Savonarola centuries ago. Under his vigorous preaching, bands of penitents were organized, who compelled, partly by entreaties and partly by threats, women to throw their false hair, their rich dresses, and their jewels, into the flames. Our women who are now so eager to induce liquor-dealers to knock out the heads of their whisky-barrels are reproducing, so far as in them lies, the enthusiasm of Savonarola's rule. They ought to reflect that the parallel may be carried further, and that the Florentine men, who suppressed fashion so rudely and so thoroughly, may yet be imitated by the praying lawyers and brokers of American cities."

Education and Book Knowledge.

THE high water mark of a very prevalent theory in education is reached in an assertion, by one of the foremost educators of the day, to the effect that what a man can write out fully and fairly concerning any matter, *that* he knows, and no more. Whatever falls short of this simple and certain test, we are told, is no better than sheer ignorance.

The phrase expresses, with axiomatic terseness, the controlling spirit of the schools; and for this reason, we suppose, it has been echoed right and left as a settled dogma in education. From the primary school up to the highest, excepting a few scientific schools, the grand test of knowledge is verbal expression. The pupil that recites the best wins the prize; and as the most credit goes to that teacher whose pupils meet the standard required most completely, the tendency is to narrow the range of teaching to those things which can be most readily reproduced in formal phrases. The premium is paid for words, and naturally the teacher gives more attention to them than to the pupils' mental health and mental development.

Not that facility of verbal expression is to be despised or neglected. It is an art second to none, and worthy of proportionate culture. In many cases it is also a first rate test of knowledge; but to make it the ultimate test, in all cases, involves a double fallacy, subversive of the highest aim in education. It implies that all knowledge worth having can be expressed in words, and consequently can be communicated by words, either for informing another or for testing his information. It implies, too, that the possession of knowledge necessarily carries with it the power of ready and accurate expression.

The fact is, on the contrary, that relatively

but a small part of what one may know can possibly be expressed in words; and much, even of that which can be formulated, may be thoroughly apprehended and practically used by one who could not begin to set it down in logical sentences.

Time was when book knowledge was thought to be the sole basis of scholarship. All teaching was book teaching, and it was no more than fair to expect students to prove their knowledge in book fashion. But that time is past. The bookish estimate of culture no longer satisfies. The library alone can no longer make a scholar; and every scheme of culture which pins the pupil's attention to letters is little better than a wall set round him to keep him from learning what he ought to know. That much of what passes for legitimate schooling is such a wall, is recognized by everybody except the pedagogue.

Men of real culture are well aware that ability to do is vastly superior to ability to say; and they believe that the development of skill and power ought to receive at least as much attention in schooling as the mere accumulation of second-hand facts; but all that sort of basic culture is not merely slighted, but suppressed, as soon as the test of verbal description is made supreme.

There are less than fifty sounds in the English language. If they were all devoted to the service of a single sense, all their possible combinations would be insufficient to express the distinctions which that sense might be able to recognize. There are five thousand times fifty fibrils in the optic nerve, as estimated by Helmholtz, each demonstrably capable of conveying many degrees of sensation of the several primary colors. One need not calculate the permutations of two hundred and fifty thousand to realize how meager the richest possible vocabulary of sight terms must be for the expression of sight experiences. Still greater is the poverty of language when used for expressing the infinite distinctions of thoughts and things which the whole man is capable of apprehending. Relatively, indeed, our words are but a clumsy sort of currency for certain common needs, no more sufficient for the complete expression of thoughts and feelings than bank notes are for the measurement of values. For the grosser exchanges of life, for marketable values, money answers well enough; but how shall one express in bankers' figures, or set phrases either, the value of a kindly word, a mother's love, or a cup of water to one perishing of thirst?

The killing fault with the scholastic test of knowledge is that, from its nature, it fails to reach—as it fails to encourage—more than a single phase of culture, and that one of inferior grade. It measures verbal acquisition only, not skill or power; and since conduct rather than words, ability to do rather than facility in saying

what has been done or ought to be done, is the ultimate test in life, and should be the paramount aim in education, the word test is necessarily deceptive as well as inadequate. The glib art critic, scarcely able to draw a straight line, might have at his tongue's end a greater array of fine art phrases than a Michael Angelo; and if suddenly called on to write out fully and fairly his knowledge of sculpture or painting, the master might be beaten by the mere theorist. So, too, the veteran shipmaster of a hundred successful voyages might make off hand a poorer display of nautical knowledge than the cadet fresh from the naval school, or possibly the concoctor of sea stories for a sensational newspaper.—*Scientific American*.

Notes from Patients.

EDITORS REFORMER:—Permit me, through your columns, to make a public expression of my appreciation of the Institute, and also an acknowledgment of my gratitude to those connected therewith. This, in justice, should have been done some months since. After an association of ten months with the Institute as a patient, during which time I had ample opportunity for learning its character and purposes, I unhesitatingly express my conviction that there is seldom anywhere an establishment that will rank with it in thoroughness or completeness, and even more rarely one that will compare with it in broad and generous principles. Most cheerfully and heartily do I recommend it to invalids as an institution which provides not only the conditions and aids that promote health, but which also furnishes a quiet and restful home that real sufferers cannot fail to appreciate.

For myself, those who were about me will remember how thoroughly I relished the life that I found at the Institute, and how eagerly I caught what was to me then the new and strange ideas of the hygienic system. Permit me to say that my faith in it is unwavering, and has increased since my return to my home in Indiana, where there is much pork and little hygiene.

I scarcely know how to offer my thanks to those who so kindly cared for me during the time I was there. My indebtedness is alike to physicians and helpers. My case, one of nervous prostration, was long and tedious—the more so, because I was very feeble before I went to them. Nevertheless, through winter's snow and summer's heat, as well through the silent watches of the night as during the busy hour of the day, my necessities were ministered unto faithfully and tenderly. For this reason my indebtedness is such that I cannot estimate it, nor make any return for it in words. Surely they will have their reward with all the faith-

ful, and He will remember them when "he cometh to make up his jewels."

May the angels of the Lord with healing in their wings ever hover about and above the Institute.

With grateful recollections,

JULIA E. NEWKIRK.

From a private letter that we received from Miss. N. a short time previous to receiving the above, we extract the following:—"I have been feeling quite strong since the cold weather came, and I know you would be scarcely able to believe your eyes if you were to see me, I am so large and fleshy."

The following is from a patient who gave drugs a thorough trial before coming to the Institute.

MY DEAR DOCTORS:—I have long since felt it my duty to express my gratitude to you and others connected with your noble institution, but words are inadequate to the subject, as I think of my condition when I went to the Institute. But the Lord in his providence, through your kind care and efficient treatment, raised me up to health and strength after ten years of constant suffering with pain in my back and left lung and right side. For four years and a-half I had from one to six heavy chills every day. Three years and four months I was not able to walk one step or sit up but very little. My suffering was intense all the time. I was very fleshy and perfectly helpless, with constant numbness, and had a very voracious appetite. When I began to get better, my body came back to its natural size, and my appetite became what it should be. I would say to the afflicted ones, Don't be discouraged because you don't get well immediately. I was at the Institute eight long months. They seemed long to me, away from my home and family, but it only seems like a dream to me now, I am so well again. I can do all kinds of laborious work around the house.

The physicians of the Institute told me that they could not cure me at the Institute, as I could not stay a sufficient length of time. But they could get my condition so that I could go home and get well. It proved just as they told me. When I came home, the 3d of May last, after staying eight months at the Institute, I could not sit up for one hour in a day for nearly two weeks; but I soon saw that I was gaining strength gradually, and at the end of seventeen weeks I could walk a step or two. Many of the acquaintances that I formed at the Institute will recognize this, and rejoice with me.

I rejoice in the light of the health reform. I found that butter and sugar were the two worst things that I could eat. Sugar I could not eat

at all without causing me great suffering. My husband, as well as myself, has adopted the two-meal system, and we think it much better to eat to live than to live to eat. I should advise all afflicted in like manner to go to the Institute immediately and seek relief, which I am sure they will find, speaking from my own experience.

Yours very respectfully,

S. M. G.

DR. GINLEY:—After so long, I feel inspired to write you. After suffering between three and four years from chronic dyspepsia and liver complaint, I became emaciated to ninety-seven pounds, although about six feet in height. Oh! I was a living skeleton. I am like one raised from the dead. Many around me said I must die. Many of my friends endeavored to persuade me to take drugs; but I refused, and, keeping my mind firmly fixed on hygiene, I determined to get my health. The result is, I now weigh about one hundred and forty pounds, and go about my work every day. I cannot endure hard labor yet, and I do not expect to in one year; but as I go here and there, people wonder, and look at me with astonishment. Then they inquire, What did you take? what helped you? You don't look like the same man. I did not know you. How well you look! etc. I then relate to them how I went to the Health Institute, what you did there for me, and how I posted myself on the laws of health, and followed out the same. Some say, "I will never take any more drugs;" others, "as soon as I am sick I will go to the Institute;" while others are leaving off the use of pork and tobacco, and acknowledge that this is the way. Oh! it thrills me with joy to see the reform triumph at last, after receiving the abuse of people so long; but I know they are ignorant, and so let them pass on. May God speed the health reform.

H. C.

Ladies, Beware!

BEWARE of cosmetics! Beware of paints! By so doing you will avoid the chagrin and mortification to which a fashionable lady was subjected. It is a fact well known to chemists that sulphureted hydrogen possesses the property of being able to cause a solution of lead, or silver, or a paper moistened with such a solution, to assume a densely black hue. It may not be well known to ladies that the paints which they so frequently employ to give to their faces the desired complexion are nearly all preparations of lead. Science has demonstrated, furthermore, that sulphureted hydrogen is formed in the decomposition of organic substances, and that it is given off in large quantities from the sewers in large cities.

A young lady who was entirely innocent of

any knowledge of chemistry or chemical facts, emerged from an elegant mansion in New York city, fully equipped for an afternoon promenade, with face artistically painted *a la mode*. Her course, unfortunately, lay for a little distance through a portion of the city where the drainage was imperfect, and the air was consequently redolent with that wonderfully pungent and active gas which is so characteristic of rotten eggs—sulphureted hydrogen. Of course the lady could not be unconscious of the presence of some noxious element in the atmosphere; but she was nevertheless wholly ignorant of its chemical properties. Her ignorance did not, however, deter the gas from manifesting its most vigorous affinities for the lead paint upon her cheeks, of which she had abundant evidence as she stood before a mirror, upon her return home, and viewed the swarthy appearance of her countenance, which would certainly have been very becoming to a representative member of the African race.

K.

Vitality vs. Drugs.

BY J. A. TENNEY, M. D.

It is refreshing for reformers to see the first glimmering of light enter the souls of those who oppose the wheels of progress. A lecture delivered before the Conn. River Valley Med. Association at Brattleboro, Vt., by W. R. Dunham, M. D., and published in the *Boston Medical and Surgical Journal*, gives the hygienist this same satisfaction, because it shows the author's power to "see men as trees walking," which is liable to result in his seeing everything clearly. We have space to quote a part of the lecture only, which illustrates its general tenor.

"We claim that the term inherent power, as applied to medicine, is an error of interpretation, and that the inherent power is all on the other side. . . . Therefore, a medical property, when placed under the microscope of natural philosophy, may properly be defined thus: A substance, the presence of which within the jurisdiction of the vital force, is so incompatible with the required wants of physiological purposes that a special effort of vital force is manifested, with a view to expel it.

"There is, at this time, another question that suggests itself to our notice; if medicines have no inherent power, by what law are we to claim their utility in the treatment of disease? *As the profession have no established theory of disease* [the italics are ours], I will omit the use of the term disease and confine my language to vital force. Let me quote from Dr. Wood's definition of medicines: 'Substances capable of producing, as an ordinary result, modification of the vital force.' We have previously referred to the organic vital force as being involuntary, and endowed with instinct only; there-

fore this instinctive force may do an injury by its violence, it may act very injudiciously, even with positive detriment to the best interests of the tabernacle it desires to defend or maintain. This fact, this instinct without wisdom, creates the necessity for a medical profession to develop our reason [?], and to enable us to comprehend when it is proper to modify vital force or function with a view to prolonging life; and medicines afford the means whereby we aid and direct vital force."

Why, my dear sir, if you introduce a substance into the vital domain that is so "incompatible" that a "special effort of vital force is manifested to expel it," how, in the name of common sense, can it aid vital force? The truth is, it wastes it. If you give a "medicine" that "directs" the powers of the system, it is because it is a worse poison than the one against which those powers are already at war. Beheading a man will cure the worst case of headache. If you give a poison, opium for instance, to relieve pain, you cause the vital force to expend itself upon the poison until that force is paralyzed. This is not aiding the vital force.

West Concord, Vt.

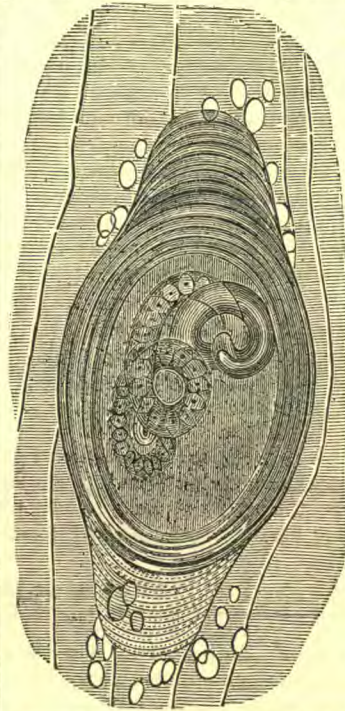
A SECRET.—I want to tell you a secret. The way to make yourself pleasant to others is to show them attention. The whole world is like the miller at Mansfield, who cared for nobody—no; not he—because nobody cared for him. And the whole world would serve you so if you gave them the cause. Let people see that you do care for them by showing them what Sterne so happily called the small courtesies, in which there is no parade, whose voice is too small to tease, and which manifest themselves by tender and affectionate looks and little acts of attention, giving others the preference in every little employment, at the table, in the field, walking, sitting, and standing.—Wirt's Letters to his Daughter.

Trichinæ Horrors.

LAST MONTH we called attention to the fact that the trichinæ (pronounced *tri-ki'-na*), that terrible scourge of pork-eaters, was again beginning its ravages. Since that time, numerous other cases have made their appearance. There are now in Chicago, Ill., several whole families suffering from the disease with little hope of recovery. At Grinnel, Iowa, thirteen other cases have appeared. Several have died, and others linger in horrible agony, to die a few days later. A Wisconsin paper reports more than a score of cases in one locality in that State. In most of these cases the disease was communicated by eating uncooked or slightly cooked ham or sausage; hence the papers recommend thorough cooking as the proper means

of avoiding the disease. It does not seem to occur to many people that it would be still safer to abandon the use of such filthy articles as all the preparations of pork must be in its best state. The thought of eating meat which is almost certain to be filled with the carcasses of loathsome worms, either dead or alive, must be quite appetizing to the lovers of swine's flesh.

"The following cut represents the worm as it appears under a microscope of great magnifying power, and as found in specimens of diseased



pork. When reposing, coiled in its tiny capsule, it presents the appearance of an egg-shaped mass, but upon being taken into the human stomach the capsule is dissolved by the gastric juice, and the liberated worm proceeds immediately to penetrate the surrounding coats of the stomach and the flesh, where it propagates its kind rapidly and indefinitely,

causing a speedy and horrible death of its victim."

It is believed by many eminent medical men that very little is known of the ravages of the *trichinæ spiralis*. If the whole truth were known, it is quite probable, to say the least, that quite a large proportion of all the pork eaten would be found more or less affected with this parasite, and good medical authorities are disposed to think a large majority of the true cases of trichinæ poisoning are never discovered to be such. Many persons die of obscure and mysterious diseases which have baffled the utmost skill of their medical attendants. If the facts in the case were fully elicited, who can tell what the revelation might not be. Pork-eaters, beware! The hog is a scavenger, and the trichinæ-worm is a scavenger also, and feeds upon the hog. If you make yourself a scavenger by gratifying your appetite for pork, the trichinæ will stand a pretty good chance of acting the scavenger upon you also.

J. H. K.

To Correspondents.

SALT AND BUTTER.—J. S. asks: 1. Is salt necessary for high health? 2. Is a person better off without it? 3. Is the use of fat or butter necessary to keep up animal heat in winter in a cold climate?

Ans. 1. No. 2. Yes. 3. No. All farinaceous foods contain a sufficient amount of starch and sugar to supply all the heat necessary in any climate.

AMAUROSIS.—H. S. had typhus fever in 1861, and has since been troubled with difficulty in discerning distant objects.

Ans. We fear yours is a case of amaurosis. Little hope can be entertained for a complete cure of a case of confirmed amaurosis. The best that can be done is to improve the general health, and tone up the system as much as possible. Your sight may perhaps be somewhat assisted by a suitable pair of glasses fitted by a good oculist.

WOUNDS AND BRUISES.—J. H. will find something on the subject of wounds and bruises in the *Hydropathic Encyclopedia*, and also in the *Hydropathic Family Physician* by Dr. Shew.

RIVER WATER.—L. H. B., Hudson, asks: 1. Is the surface water of rivers receiving drainage more impure than that which is deeper? 2. Is the surface water more impure when frozen over?

Ans. 1. Yes. 2. Yes. But there is of course less impurity in winter than in summer.

GOITER.—A. H. F., Springport. Alternate hot and cold applications are preferable to either one constantly applied.

Treat. Once a day make alternate hot and cold applications by applying hot fomentation for five minutes, and immediately after, allowing cold water to drip upon the diseased part two minutes. Alternate three times. During the interval, wear a wet compress upon the part, frequently taking it off and rubbing the neck vigorously with cold water. The disease will require persistent and persevering treatment.

NEURALGIA IN HIP.—J. A. P., Wis.: From what we can gather from your account of your condition, we conclude that your difficulty is an affection of the nerves of the hip.

Treat. Attention to the general health and alternate hot and cold applications to the hips is the best treatment which can be applied.

TAPE-WORM.—W. H. B.: From the advertisement you sent us in your letter, we clip the following:—"Much mischief is often done by the ordinary worm medicines, which generally consist of strong purgatives. They may de-

stroy worms, but they debilitate the stomach." In the treatment of tape-worms we do not use these patent nostrums. We treat these worms successfully, but we cannot trust our treatment to any except physicians. All who come to us will be treated as thoroughly as their cases demand.

We use medicine for the purpose of *killing*; as for killing worms, destroying cancers, tumors, and all abnormal growths.

DYSPEPSIA, PARALYSIS, DIARRHEA.—J. S. H., Maine, says he had typhoid fever thirteen years ago, was treated with strong drugs, has had very poor health since. Pain in back and kidneys—darting pain through the extremities—is deprived of the use of his limbs—pain, bloating and soreness about the stomach and bowels, more so after retiring—sleep disturbed. He has had frequent attacks of diarrhea since last October. Appetite good. Eats three meals a day.

Ans. You are in great danger of paralysis. Your diarrhea indicates a relaxed condition of the vital powers, and your life depends very much upon your temperance in eating and laboring.

You should adopt the two-meal-a-day system and be regular in all your habits. In your feeble condition, your food is not sufficiently elaborated to nourish all parts of the system. This may induce paralysis, from which you may never recover.

Treat. Sitz-bath at 90° for eight minutes and 88° for two minutes, once a week. Frequent fomentations over stomach, liver, and bowels. A general sponge-bath once a week with one of the above baths will be about all you can bear at present with safety. See general directions in the "Family Physician."

DYSPEPSIA.—S. S. B., Mich., asks: What would you do for a patient who has much pain in the stomach, between the shoulders, and in the limbs—is not able to work much—has been ailing for two years.

Ans. You should pay particular attention to your diet, should eat but two meals a day, consisting of fruits, grains, and vegetables. You should eat slowly, masticate your food thoroughly, and drink nothing with your meals. You should never eat when very weary, or when highly excited; should also rest twenty minutes before, and twenty minutes after, eating. For special treatment, send for the "Family Physician."

GRAHAM BREAD.—B. B., Virginia, wishes to know how a dyspeptic upon whom unbolted wheat-meal seems to operate as a physic can manage to eat graham bread.

Ans. It not unfrequently happens that with confirmed dyspeptics the mucous lining of the intestines has become so morbidly irritable that

the bran of coarsely ground wheat acts as a mechanical irritant, and so produces unpleasant and injurious looseness of the bowels. This difficulty may be avoided by being careful to obtain finely ground graham flour, and then, if necessary, sifting from it a little of the coarsest of the bran.

The difficulty of which you speak with reference to eating raw apples is not uncommon. You should eat your fruit cooked.

DYSPEPSIA AND KIDNEY DISEASE.—N. S., Ill., writes that she has been troubled with neuralgia for eight or nine years. Has much pain and weakness at the pit of the stomach. Kidneys inactive. Eats fine-flour bread and a large amount of salt. Works beyond her strength. Feels gloomy.

Ans. Your symptoms indicate very clearly that your stomach and kidneys are both seriously affected. Doubtless your large use of salt is the chief cause of the difficulty, together with overwork.

Treatment. Your case is so serious that it must receive immediate and careful attention. You can hardly hope much benefit from home treatment and ought to avail yourself of the benefits of a good health institution. Until you can do so, the best you can do at home is to follow carefully the following directions: 1. Relieve yourself of household cares and take plenty of light exercise in the open air, by riding, etc. 2. Use very little if any salt in your food, and exchange fine-flour for graham bread. 3. Take sitz-bath on Tuesday for ten minutes, at 95° for five minutes, 85° remaining five minutes. During the bath, hot and cold applications may be alternately applied to the spine with vigorous friction. A wet-sheet-rub may be taken on Friday. Frequent dry-hand rubbing may also be beneficially applied.

DISCHARGING WOUND.—J. C. W., Ill.: Apply to a skillful surgeon who can make a personal inspection.

MAPLE SUGAR.—M. N.: Is maple sugar better than the common brown or white sugar?

Ans. The common brown sugar is often adulterated, and is many times infected with parasites. There is little choice between maple sugar and pure white sugar, although the latter contains less impurities.

DIET IN SCARLET FEVER.—J. R. asks: What is the best diet in scarlet fever?

Ans. Light gruels of oat meal, graham-meal, and barley-meal given at proper times and in proper quantities is the best diet. The patient should be supplied with as much food as can be well digested.

ALL men would be masters of each other, and no man is lord of himself.

Economy.

THERE is an old saying that "economy is wealth." Webster says, "Economy is a virtue, and avoids all waste and extravagance, and applies money to the best advantage." I wish to advocate economy, but I despise parsimony or stinginess. Now I am an advocate for good living. I believe it adds to comfort and health, thereby promoting longevity. The man who lives poorly does not economize. He may save money, but he loses strength, and finds his life shortened thereby. "That is so!" says the man who lives on fine-flour bread and fat pork, "don't give me any of your starvation diet." But hold! I said *good* living, and chemists tell us that when we grind wheat and remove the bran and shorts we lose the bone and muscle-forming material, while the part removed costs less than the part retained. I maintain that one hundred pounds of unbolted flour will furnish more food for man than one hundred and fifty pounds of bolted flour. Reader, try it and see for yourself. But is it economy to use pork? I know a poor man in California who bought two hogs weighing four hundred pounds alive, and paid therefore the sum of \$20.00. Now, deducting the waste, he will not have over two hundred and fifty pounds clear meat, that is, free of bone. For the same amount he could have bought a much greater quantity of much better food; say the following: Two hundred pounds of graham flour, \$7.00. Three hundred pounds potatoes, \$3.00. Fifty pounds of rice, \$3.50. Fifty pounds of beans, \$1.50. Two hundred pounds green apples, \$3.00. In the above, we have *eight hundred pounds* of good nutritious food, and costing, in all, \$2.00 less than two hundred and fifty pounds of pork. Now with a careful purchase of whatever extras the cook might think useful and that \$2.00 would buy, he could have had sufficient food for a considerable length of time, and of a good variety.

Reader, I ask you in all candor—especially if you are poor—to stop and think, Is your pork-eating economical? To say nothing of the sickness and disease which it may cause you, is it not a waste of money? Do you say you must have meat? I reply that thousands of persons have lived without it for years—persons, too, that once thought they must have it; and not one can be found who was the worse for leaving off the use of *pork*. Again I say, Try it.
WM. M. HEALEY.

Watsonville, Cal.

A TEMPERANCE paper, extending its views into the region of tobacco, exclaims:—"What a splendid figure the apostle Paul would have made, had he gone about to proclaim the sublime truths of Christianity with a quid of tobacco and a long nine in his mouth!"

SCIENTIFIC.

The Great Refrigeration.

DURING the past few years, astronomers and geologists have been promulgating the theory that certain causes are at work which at some time far distant in the future will result in a complete congelation of the whole solar system, and, perhaps, ultimately, of the whole universe.

In accordance with this hypothesis, for we must call it such, the sun is constantly parting with its heat, and, consequently, it is said, its store will ultimately become exhausted, no-matter what its source may be. As a result of this, the orbits of the planets, with their accompanying satellites, will gradually grow less and less until all the planets of the solar system are at last absorbed into the sun, which will by this time probably become so cool as to be habitable. The same process repeated, on a larger scale, would eventually end in the consolidation of the countless millions of stars into one huge globe, and all the organic life of the universe would become extinct, all plants and animals being literally frozen to death.

To a person who has any degree of confidence in the Bible, such a theory seems to be not only quite improbable, but wholly incredible and preposterous. But waiving the theological difficulties in the way of the acceptance of this theory, do we not find ample room for doubt when viewing it in the light of what is recognized as science? We think this is the case.

An eminent scientist has proposed a theory of the source of the sun's heat which has found many supporters among the ranks of scientists. It is a well-known fact that the space between planets and suns is not an empty void, but is filled with small bodies, of sizes ranging from that of a cobble stone to a half mile in diameter. Each of these bodies, like the planets and asteroids, is circling about the sun in its own orbit. But on account of the superior attraction of the planets, myriads of these little orbs are drawn aside from their course, and are thus absorbed by these larger bodies. As many as 4,000,000,000 of these minute bodies are thus swallowed up by our earth each day. In passing through the air, they inflame, from the friction occasioned, and are known as falling stars, or, more properly, meteors. On account of the enormous force of the sun's attraction, the number of meteoric bodies which shower upon it must be entirely beyond comprehension, and the amount of heat thus produced would of course be commensurate.

As before remarked, this theory is looked upon with favor by scientists. They also admit that space is boundless and the amount of matter limitless. It is also held that while the planets of the solar system are revolving about our central orb, the sun itself is circling about another great center which is supposed to be located in the beautiful little constellation known as the Pleiades. This center is itself moving, and doubtless performs a periodic revolution about still another giant globe; and many suppose that this arrangement is continued throughout the universe. The universe being boundless, and these motions being constant, it must be readily seen that when our

sun leaves any particular locality in space, it makes a final departure never again to return to that precise situation. As it passes into new fields, a new supply of meteors is afforded; and as it never returns to the exhausted fields, how can the supply ever become exhausted or even diminished?

When science does not agree with itself, why should we mistrust the accuracy of revelation when we find some apparent disparagement between it and the teachings of science? True science and inspiration always agree when they are correctly interpreted; but we must not attempt to judge or condemn the Bible by the conclusions of half-developed sciences and unfounded hypotheses.

Color.

ONE of the most interesting subjects of investigation in the whole range of physical science has been the cause of the various phenomena of color. From very ancient times it has been known that all the various tints and shades of color might be produced by combining, in various ways, the three colors, red, yellow, and blue. From this it has been supposed that these colors were the three primary colors from which all others must be derived. Certain experiments, also, seemed to confirm this view; but there have always been some phenomena which have been very unsatisfactorily explained by this view. For example, it has been claimed, on theoretical grounds, that by combining red, yellow, and blue, in proper proportions, white light would be produced. All the text books upon natural philosophy teach this view even now; but actual experience does not support the statement. The nearest approach to white that has ever been produced in this way was a very dirty gray, which might almost as justly be called black, as white.

To avoid this difficulty, Mr. Thomas Young proposed a new theory in 1807, which was afterward confirmed and demonstrated by the great scientist, Helmholtz. This theory has recently been beautifully elucidated and illustrated by Prof. O. N. Rood of Columbia College, in a series of lectures. As stated by him, the theory which now justly merits the indorsement of scientific men, supposes, as did the old, that there are three primary colors; but it is held that these colors are red, green, and violet, instead of red, yellow, and blue.

It is found, in accordance with this theory, that red and green light produce yellow or orange, as the red or green predominates. Green and violet likewise produce blue; while red, green, and violet, produce genuine white light. White light is also produced from yellow and blue. All the phenomena of color are equally well explained, and the theory is thought to be wholly satisfactory.

Subterranean Fish.—An artesian well was recently sunk in California to a depth of one hundred and forty-three feet, when a strong flow of water was established, which spouted thirty feet high. After a few days, fish were noticed in the waste water, and upon examination, thousands of young trout were thrown out at every jet. *They had perfect eyes.* The nearest stream was several miles distant.

BOOK NOTICES.

THE TEN LAWS OF HEALTH. Philadelphia: J. B. Lippincott & Co.

This is indeed a very estimable work, and well deserves the excellent reputation which it has already won since its recent publication. The author takes a common-sense view of the causes of disease, and draws therefrom his ten precepts of health, the observance of which he shows to be morally binding upon mankind. He entirely exculpates nature and Providence from any responsibility for the multitudinous diseases to which suffering humanity are subject, and finds the true origin of disease "in human misconduct."

The volume is a perfect mine of the most valuable information upon all subjects pertaining to the preservation of health and the prevention of disease. In perusing the work, we have been constantly and agreeably surprised to find a physician of the old or regular school of medicine taking the most advanced positions upon all the topics discussed. Although we could hardly indorse *all* the positions taken, we consider the work as one of the most valuable additions to medical literature that has recently appeared. It deserves wide circulation.

THE PASSIONS IN RELATION TO HEALTH AND DISEASE; from the French of Dr. X. Bourgeois. Boston: James Campbell.

The subject of which this work treats is one of the greatest importance, notwithstanding the fact that false modesty and morbid delicacy too often prevent the proper consideration of it. The writer is thoroughly conversant with the subject of which he speaks, and seems to be qualified by an extensive and varied experience to deal with it in the masterly manner in which he does.

The author finds no apology in nature for any of the immoral practices which abound in society at the present time, and which have even been legalized in some of our large cities. The most fearful warnings are given against the unlawful or unnatural gratification of the passions; and religion is constantly held up as the only salvation from the tyranny of vice, and the most effectual safeguard from the pit-falls of iniquity.

In character of style, the work is wholly unexceptional, being high in both moral and literary tone, and being wholly chaste in expression, and free from anything like vulgarity.

THE NATIONAL TEMPERANCE ORATOR. New York: National Temperance Society.

This is a new and choice selection of prose and poetical articles bearing on temperance. Among the numerous able contributors are found the names of Rev. T. L. Cuyler, Dr. Chas. Jewett, Rev. T. DeWitt Talmage, John B. Gough, Rev. Geo. P. Hepworth, and many other distinguished names. It contains many choice gems of literature, and many eloquent appeals in behalf of temperance. Every drunkard ought to have a copy to read in his sober moments.

BACCHUS DETHRONED; a Prize Essay by Mr. Frederick Powell of Newcastle, Eng. New York: National Temperance Society.

We can scarcely say too much in commendation of this estimable work. It covers the whole subject of alcohol, in all its forms, and deals with it in a masterly manner. The most powerful and convincing arguments are brought forward to show that alcohol has no value as a food, nor as a vital stimulant; that it diminishes both the temperature and muscular strength of the user; that it can serve no useful purpose whatever in the vital economy, being wholly eliminated from the body unchanged; that it is a powerful irritant poison; that its use is productive of greater evils to the human family than was pestilence and famine combined; in short, that it is the most unmitigated curse of civilization.

The question is considered under the following heads: 1. The Great National Curse. 2. The Supposed Dietetic Value of Alcoholic Beverages. 3. The Physiological Relations of Intoxicating Liquors. 4. The Social and Political Argument. 5. The Manufacture of Intoxicating Liquor an Immorality. 6. Teetotalism a Scientific Truth. 7. Teetotalism in Relation to the Bible. 8. God's Great Remedy for the World's Great Curse. 9. Legislation and the Liquor Traffic.

THE WHITE ROSE is another work just published by the National Temperance Society. It is a work of considerable merit, and is well adapted to Sabbath-school libraries. It contains good moral and religious instruction, and is well calculated to impress young minds with a lively sense of how much misery and suffering are due to the baneful influence of strong drink.

The same house have also just issued the following valuable tracts and pamphlets:—

A High Fence of Fifteen Bars which the rum-seller builds between himself and Heaven; Suppression of the Liquor Traffic; The Throne of Iniquity; Influence and Effects of Social Drinking Usages among Women; The Criminality of Drunkenness, Judged by the Laws of Nature; Why we Oppose the Traffic.

POPULAR SCIENCE MONTHLY. New York: D. Appleton & Co.

This is one of the most valuable journals published in this country, and promises by its flattering success, thus far, to be the means of accomplishing an amount of good almost incalculable. Each number presents, in a most charming and instructive manner, some of the many thrilling and impressive truths of science. The great beauty of this journal consists in the fact that while it studiously avoids anything like scientific pedantry, presenting scientific facts in a style which is both interesting and intelligible to those who may not be thoroughly versed in the technicalities of science, it is nevertheless not in any degree open to the charge of superficiality. The number for March is one of the best of this constantly improving magazine.

Items for the Month.

We would call attention to the advertisement on the cover, of Property for Sale at a bargain.

On the preceding page will be found notices of several fine works which have been received during the month.

Several excellent articles have been received a little too late for publication this month, but they will appear in the May number.

All thorough health reformers who are in possession of valuable receipts for hygienic cooking will do us a favor by sending the same to us at as early a date as possible.

Cook Book.

MANY orders for Cook Books have been received which we have been unable to fill, the old edition being completely exhausted.

It was expected that a new one would have been prepared by the time the last copy of the old one was sold, but owing to unavoidable causes it has been delayed. We would say, however, for the encouragement of our patrons that we now hope to be able to fill all orders by the first of May at least.

Webster's Dictionary.

WE again call attention to the advertisement, on the cover, of this most useful work. It is, indeed, a wonderful triumph of patient industry and toilsome research. Although it still bears the name of Noah Webster, the present edition can scarcely be said to be the product of the labors of that great lexicographer. In fact, it is not the result of the labors of any single man, but embodies the combined labor of more than a score of able scholars, linguists, scientists, and specialists in various pursuits, and so is in one sense a sort of compendium of the knowledge of the age.

It is certainly quite indispensable to every one who does not wish to "garble" the English language; and if its use could become much more universal than it is at present, every editor in the land would rejoice.

Hygienic Family Physician.

IN order to please all classes of our patrons, and to meet the demands of this recently published work, we are preparing another volume which will contain the same reading matter as the present bound volume, with nearly two hundred pages in addition. The four parts of the bound Family Physician were severally published in pamphlet form, each part constituting a pamphlet. We now pro-

pose to bind these four pamphlets into one volume, adding to them another valuable pamphlet which embraces three of the most important and interesting of Dr. Graham's celebrated "Lectures on the Science of Human Life." These five pamphlets will together constitute a fine work of nearly 500 pp. As must be seen, this work will contain a large addition to the matter contained in the present bound volume; nevertheless, it will still be sold for the small sum of \$1.00, and agents will be allowed the same discount as heretofore. Our object is not to amass wealth through the agency of the hygienic cause, but we aim to do all in our power to disseminate the glorious truths of health reform, and thus alleviate the sufferings and enhance the enjoyment of our fellow-men.

That no inconvenience may arise from the work being a compilation of pamphlets, a copious glossary and index to each will be appended to the whole.

Cost of Living.

THE *Sacramento Union* states that a family of nine managed to live on the best of provisions, at city prices, on \$1,110.00 a year as follows:—

1. Meat,	\$321.00
2. Butter,	161.00
3. Milk,	135.00
4. Fruit,	131.00
5. Sugar,	100.00
6. Breadstuffs,	87.00
7. Vegetables,	80.00
8. Eggs,	43.00
9. Miscellaneous,	52.00
Total,	\$1,110.00

The true health reformer would reduce the foregoing sum something on this wise:—

6. Breadstuffs,	\$150.00
7. Vegetables,	100.00
4. Fruits,	125.00
1, 2, 3, 5, 8, 9, Miscellaneous,	75.00
Total,	\$450.00

His family of nine, with appetites improved by reformed living, would enjoy their food better, and would be far more healthful, with the reduction of prices to the amount of \$660.00, during the year.

LAWS OF HEALTH.—With the increased knowledge and observance of the laws of health, many individuals have not only prolonged their own lives, but the average duration of human life, within forty or fifty years, has considerably advanced. But physiology in its practical applications is yet in its infancy. When its principles become so generally understood and appreciated as to be practically applied throughout the community, in every family, and by every individual, then will be found a great diminution of disease, as well as early mortality.—*Dr. Nathan Allen.*