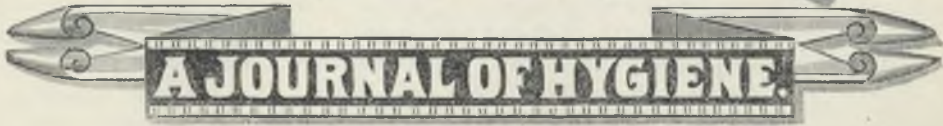


GOOD HEALTH.



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NO. 8.

DANGER FROM DECOMPOSING FOOD.

THE following which we copy from the "Home Hand-Book" is particularly *appropos* at this season of the year:—

DECAYED FOOD.

It has been clearly shown by numerous cases, that the use of decayed or moldy food is dangerous to health and life. Probably decayed flesh is the most dangerous. More than four hundred cases of poisoning from the use of moldy sausage have occurred in Württemberg, Germany, within the last fifty years, one hundred and fifty of which have been fatal, from which it will be seen that the use of such food is in the highest degree dangerous.

Cases of most severe poisoning have occurred from eating moldy bread, decayed cheese, milk which had been kept in cans not well cleaned, and canned meat which had undergone a species of decomposition which cannot be detected by the smell or appearance, but which renders the meat extremely poisonous. Fish is much more apt to undergo this peculiar change than other kinds of food.

As is well known, meat is much more tender and has a higher flavor after being kept sufficiently long after killing the animal to allow decomposition to begin. When decay has progressed so far as to give to the flesh a distinctly putrescent

odor, it is said to be "*high*." Game of all sorts is usually eaten in this condition. In Europe it is generally customary to allow all meat to get very "*high*" before it is considered fit for the table. In France the degree of putrescence desired is generally greater than in England. Many wild tribes much prefer their food

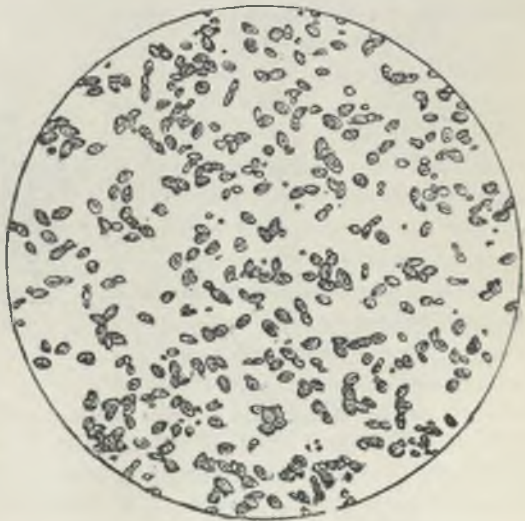


FIG. 1. SPORES OF YEAST MAGNIFIED. (HASSALL.)

in a state of decay. Decomposed fish, under the name of *gnappee*, is said to be considered by Burmese epicures as one of the choicest of dainties. The loathsome stuff is thus described by a correspondent of the *London Times*:—

"This horrible mass of putrefaction is one of the choicest dainties of the

Burmans. A quantity of fish caught in the sea is pickled and then buried in the earth and left there to attain the desired pitch of rottenness, for a time varying from one to four years, according to the taste of the particular market for which it is destined. Just as the wine manufacturers of Epernay and Rheims give to their champagnes particular flavors to meet the various tastes of their clients, so the dealers in *gnappee* are said to prepare their delicate commodity. Whether kept for one or four years, it is absolutely putrid, and swarming with loathsome animal life. Not only do the Burmans love the horrible viand itself, but they actually revel in its effluvia, and the native passengers on the flats which carried it nestled and snuggled up to the vicinity of the nastiness, inhaling its stench with as much gusto as a hungry London gamin sniffs the odors of a cook-shop. Can human beings consume this loathsome putridity without suffering evil consequences? I remember on the eve of my departure for a previous visit to India, that Mr. Jonathan Hutchinson, the eminent surgeon, asked me to observe, if I had the opportunity, whether the salt fish on which a large proportion of the population of the Indian sea-board subsisted, appeared productive of any specific disorder. The opportunity for such an inquiry did not then offer itself; but in Burmah there are two facts which may have some relation one to the other,—that this putrid, pickled fish is an extensive article of consumption as human food, and that leprosy is so prevalent in the jail of Rangoon that it is found necessary to have a special ward for lepers."

The same writer also suggests that the destructive outbreak of plague which occurred in Astrachan was probably largely due to the use of this kind of food.

While food which is far advanced in decomposition many times seems to be eaten with impunity, there is good reason, as intimated above, for believing that food of

this character may be an active cause of loathsome and very fatal diseases. Not infrequently, too, acute and fatal poisoning occurs.

Serious sickness frequently arises from the use of stale eggs, especially in the summer time, when it is often difficult to obtain eggs that are fresh.

During warm weather, eggs speedily undergo changes akin to putrefaction. The shell but partially protects its contents from the destructive action of germs, unless it is rendered impervious by the application of some substance capable of



FIG. 2. YEAST FUNGUS MAGNIFIED. (HASSALL.)

filling the pores so that the air cannot pass through.

An English gentleman who has investigated the subject quite thoroughly, finds, upon a careful microscopical examination, that stale eggs often contain certain peculiar cells of a fungoid character. These seem to be developed from the yolk of the egg, that portion which should furnish the material to form the flesh and bones of the chick which the egg would have produced by development under favorable conditions. Eggs containing these cells pre-

duced a poisonous effect upon dogs to which they were fed. We knew a case in which a whole family were seized with violent purging in consequence of the use of stale eggs; at least the difficulty could be assigned to no other cause.

Eggs grow lighter as they grow older; by the evaporation of their fluid contents, causing the internal portion to shrink. This leaves a small air space at one end, which becomes larger as the egg is older, and if it is very stale it will float when placed in water. Such eggs should be discarded as unfit for food.

ROTTEN CHEESE.

When fresh made, cheese is not an unwholesome food, though rather difficult of digestion; but when it has passed through the process of curing, or maturing, which is really a process of decay, it is wholly unfit for food, being difficult of digestion, and likely to interfere with the digestion of other food. Some kinds of cheese, especially those of foreign make, as the *limburger*, is utterly loathsome to all unperverted tastes, and should on no account be eaten. Cheese often contains a peculiar grub, the larvæ of a species of fly, commonly known as *skippers*, or *jumpers*, from their jumping powers. If a man could leap as high in proportion to his length as a skipper, he could easily spring over a steeple one hundred feet high. Another parasite which infests cheese is known as the cheese-mite, which so closely resembles the itch-mite, or *acarus scabiei*, that it is not necessary to represent it.

YEAST AND MOLD.

One of the most active agents in the production of decomposition is the yeast fungus, the spores of which are well shown in Fig. 1, and the fully developed fungus in Fig. 2. This is the effective agent in the fermentation of beer and wine, the raising of fermented bread, the "working" of cider, etc. It is the presence of many of the spores, unaffected by the heat, which renders the use of fermented bread objectionable in some cases

of dyspepsia. Compressed yeast consists of the spores of the plant dried and compressed. With the aid of warmth and moisture, fermentation will take place spontaneously, as the air constantly contains many of the yeast germs, or spores, which find ready access to fermentable substances and induce their peculiar process.

Fig. 3 is a representation of the green mold so often seen on old cheese, stale bread, and other articles of food, as seen under a good microscope. It is by no means a harmless fungus, as the most



FIG. 3. GREEN MOLD OF OLD CHEESE AND STALE BREAD.
(HASSALL.)

serious illness has frequently resulted from the use of food affected with mold. In one case a whole family were poisoned by eating a pudding which contained a few pieces of stale and moldy bread.

STALE VEGETABLES.

The use of stale vegetables is often a cause of serious disturbance of the bowels, especially early in the season, when many kinds of vegetables are taken to market in an unripe and immature state. Vegetables and fruit keep fresh much longer than animal foods; but when kept in the vicinity of strong and offensive odors, they absorb bad gases, and may thus be-

come unwholesome. Fruits and vegetables which have begun to decay are unfit for food. Potatoes and other vegetables which have begun to sprout much are not fit to be eaten. Potato sprouts contain a poison which may produce serious results, as it is of about the same nature as belladonna and other poisons of that class.

Vegetables can be best kept in a wholesome condition by storing in a cool, dry place. The damp, dark vegetable cellars, usually located under a house or barn, are anything but wholesome. The vegetables rapidly deteriorate in quality, and the poisonous gases generated by decay, ascend into the house to poison and sicken its inmates.—*Home Hand-Book.*

PHYSICAL CULTURE.

PROBABLY more men walk past the corner of Broadway and Fulton Street, in New York City, in the course of one year than any other point in America,—men of all nations and ages, heights and weights. Look at them carefully as they pass, and you will see that scarcely one in ten is either erect or thoroughly well-built. Some slouch their shoulders and double in at the waist; some overstep; others cant to one side; this one has one shoulder higher than the other, and that one both too high; some have heavy bodies and light legs, others the reverse; and so on, each with his own peculiarities. A thoroughly erect, well-proportioned man, easy and graceful in his movements, is far from a frequent sight. Any one accustomed to athletic work, and knowing what it can do for the body, must at times have wondered why most men allowed themselves to go along for years, perhaps through life, so carrying themselves as not only to lack the outward grace and ease they might possess, and which they occasionally see in others, but so as to directly cramp and impede one or more of the vital organs.

Nor is it always the man's fault that he is ill-proportioned. In most cases it comes down from his progenitors. The father's walk and physical peculiarities appear in the son, often so plainly that the former's

calling might almost be told from a look at the latter.

A very great majority of Americans are the sons of either farmers or merchants, mechanics or laborers. The work of each class soon develops peculiar characteristics. No one of the four classes has ordinarily had any training at all aimed to make him equally strong all over. Broad as is the variety of the farmer's work, far the greater, and certainly the heavier, part of it tends to make him stoop forward and become inerect. No man stands up straight and mows. When he shovels, he bends more yet; and every ounce of spade or load pulls him over, till, after much of this sort of work, it requires an effort to stand upright. Ploughing is better for the upper part of the body, but it does not last long. While it keeps one walking over uneven ground, it soon brings on an awkward, clumsy step, raising, as it does, the foot unnaturally high. Chopping is excellent for the upper man, but does little for his legs. In hand-raking and hoeing the man may remain erect; but in pitching and building the load, in nearly every sort of lifting, and especially the heavier sorts, as in handling heavy stone or timber, his back is always bent over. It is so much easier to slouch over when sitting on horse-rake, mower, or harvester, that most persons do it.

Scarcely any work on a farm makes one quick of foot. All the long day, while some of the muscles do the work which tends to develop them, the rest are untaxed, and remain actually weak. A farmer is seldom a good walker, usually hitching up if he has an errand to go, though it be scarce a mile away; and he is rarely a good runner. He is a hearty, well-fed man, not only because wholesome food is plenty, but because his appetite is sharp, and he eats with relish and zest. Naturally a man thinks that, when he eats and sleeps well, he is pretty healthy, and so he usually is; but when he is contented with this condition of things, he overlooks the fact that he is developing some parts of his body, and leaving others weak; that the warp he is encouraging in that body,

by twice as much work for the muscles of his back as for those of the front of his chest, while it enlarges the former, often so as to even render it muscle-bound, actually contracts the latter, and hence gives less room for heart, lungs, stomach, and all the vital organs, than a well-built man would have. If a man should tie up one arm, and with the other steadily swing a smith's hammar all day, there is little doubt that he would soon have an excellent appetite and the sweet sleep of the laboring man. But in what shape would it leave him in a few years, or even in a few months? The work of the farmer, ill-distributed as to the whole man, leaves him as really one-sided as the former. It is in a lesser degree, of course, but still so evident that he who looks even casually may see it.

While the farmer's work makes a man hearty and well, though lumbering, it takes the spring out of him. The merchant is physically, however, in a worse position. Getting to his work in boyhood, sticking to it as long as the busiest man in the establishment, his body often utterly unfit and unready for even half the strain it bears, he struggles on through the boy's duties, the clerk's, and the salesman's, till he becomes a partner; or perhaps he starts as an entry-clerk, rises to be book-keeper, and then stays there. In many kinds of work he has been obliged to stand nearly all day, till his sides and waist could scarcely bear it longer, and he often breaks down under the ceaseless pressure. If his work calls him out much, he finds that the constant walking, with his mind on the stretch, and more or less worried, does not bring him that vigor he naturally looks for from so much exercise, and at night he is jaded and used up, instead of being fresh and hearty. When exceptional tension comes, and business losses or reverses make him anxious and haggard, there is little in his daily work which tends to draw him out of a situation that he could have readily and easily fitted himself to face, and weather too, had he only known how. To be sure, when he gets well on and better to do, he rides out in the late afternoon, and domestic and social recrea-

tion in the evening may tend to freshen him, and fit him for the next day's round; but especially if he has been a strong young man, he finds that he is changed, and cannot work on as he used to do. His bodily strength and endurance are gone. The reason why is plain enough: when he was at his best, he was doing most work, and of the sort to keep him in good condition. Now there is nothing between rising and bedtime to build up any such strength, and he is fortunate if he retains even half of what he had. To be sure, he does not need the strength of a stalwart young farmer; but could he have retained it, he would have been surprised, if he had taken sufficient daily exercise to regulate himself, how valuable it would have been in toning him up for the severer work and trial of the day. If, instead of the taxed and worn-out nerves, he could have had the feeling of the man of sturdy physique, who keeps himself in condition, who does not know what it is to be nervous, what a priceless boon it would have been for him!

Who does not know among his friends business men whose faces show that they are nearly all the time overworked; who get thin, and stay so; who look tired, and are so; who go on dragging along through their duties,—for they are men made of the stuff which does the duty as it comes up, whether hard or easy? The noon meal is rushed through, perhaps when the brain is at white-heat. More is eaten both then and in the evening, than will digest; and good as is the after or the before dinner ride, as far as it goes, it does not go far enough to make the digestion sure. Then comes broken sleep. The man waking from it is not rested, is not rebuilt and strong, and ready for the new day.

With many men of this kind—and all city men know they are well-nigh innumerable—what wonder is it that nervous exhaustion is so frequent among them, and that physicians who make this disorder a specialty often have all they can do? One of the most noted of them, Dr. S. Wier Mitchel, of Philadelphia, in his valuable

little book, "Wear and Tear; or, Hints for the Overworked," page 46, says:—

"All classes of men who use the brain severely, and who have also—and this is important—seasons of excessive anxiety or grave responsibility, are subject to the same form of disease; and this is why, I presume, that I, as well as others who are accustomed to encounter nervous disorders, have met with numerous instances of nervous exhaustion among merchants and manufacturers.

"My note-books seem to show that manufacturers and certain classes of railway officials are the most liable to suffer from neural exhaustion. Next to these come merchants in general, brokers, etc.; then, less frequently, clergymen; still less often, lawyers; and, more rarely, doctors; while distressing cases are apt to occur among the over-schooled young of both sexes."

And while the more active among business men run into this sort of danger, those less exposed to it still do little or nothing to give themselves sound, vigorous bodies, so as to gain consequent energy and health, and so they go through life far less efficient and useful men than they might have been. Hence their sons have to suffer. The boy certainly cannot inherit from the father more vigor and stamina than the latter has, however favored the mother may have been; so, unless the boy has some sort of training which builds him up, his father's weaknesses or physical defects are very likely to show in the son.—WILLIAM BLAIKIE in "*How to Grow Strong.*"

(TO BE CONTINUED.)

EXPERIENCE OF A TOBACCO-USER.

THE following is a statement of the experience of a tobacco-user, as given by himself:—

"Upon smoking a cigarette, I immediately experienced the following symptoms: The first inhalation of smoke would produce a sensation as though I had inhaled an irritant gas; a sense of dryness and irritation would be produced in the region of the fauces and posterior portion of the roof of the mouth. Almost immediately a sense of dizziness and impaired mental

perception of ideas and surroundings would ensue; this followed immediately by palpitation of the heart and a sense of throbbing in the vessels of the brain and head, while the pulsations in the temporal and other superficial arteries could readily be perceived to be increased in force and frequency. While in this condition, if any unusual muscular exertion were made, or should I suddenly rise from the recumbent to the erect posture, the palpitation would be much increased. Vision was not affected unless I smoked excessively, but some confusion of ideas ensued, and I found that while reading in this condition my power of grasping the meaning of what I read was lessened. The arm, extended from the body, showed a perceptible tremor of the hands and fingers, which did not exist when I was not smoking, even though I used a moderate quantity of alcoholic liquor. If I smoked even one cigarette immediately before going to bed, I felt a great dizziness upon assuming the recumbent posture, with a sense of uneasiness in the region of the stomach, sometimes amounting to a positive nausea. I would rise in the morning unrefreshed, with a dull, heavy, throbbing sensation in the head, rarely amounting to, but bordering on, a headache. My tongue would be more or less coated, and a disagreeable, foul taste in the mouth would give evidence of a disordered stomach, while my appetite for breakfast would be perceptibly diminished. In the intervals between smoking, while the palpitation would cease (unless some extra muscular exertion were made), I would have a sense of *uneasiness* in the region of the heart, best described by saying that '*I knew such an organ existed.*' After having smoked for several years (some twelve), at times moderately, and again, excessively, and finding the symptoms above described to be increasing so as to render me unfit for much mental exertion, and at the same time being in the habit of using alcoholic drinks, I determined to find out to which poison I owed my condition of uneasiness. I accordingly passed one whole day without smoking, a thing I had not done in twelve years, and drank my accustomed

quantity of alcohol. Before night the tremulousness of the hands and fingers alluded to was almost imperceptible, my appetite was much improved, my spirits rose rapidly, and I felt generally much better than I had for a long time. That night I slept well, and rose in the morning refreshed and with but a slight degree of the distressing symptoms alluded to present. Another day passed without smoking, and with the usual quantity of alcohol produced a corresponding improvement in my condition. The second night brought with it a sound and refreshing sleep, and I awoke in the morning feeling like a different man. Now, on the evening of the third day, I thought I would try whether this improvement was real or imaginary. I lit a cigarette, and instantly, upon inhaling the first puff of smoke, I became so dizzy that I was near falling, and the same old and well-known symptoms followed each other in rapid succession. During the evening I smoked two more cigarettes, and retired about 11 o'clock. The next morning there was the dullness of the head, coated tongue, foul mouth, general feverish condition, and all the train of symptoms before described. My spirits were depressed, my energy and ambition blunted, and I felt sure that I must have some serious organic disease, and that my lease of life would not last much longer. I was constantly living in a state of suspense, feeling sure that some fatal malady would soon develop itself."

AN EMINENT AUTHOR ON FOOD.

THE following article on food, while it contains nothing which will be absolutely new to the majority of our readers, is valuable, coming as it does from so high an authority as the eminent Dr. John Gill, of England:—

"In this department of ordinary life, perhaps more than in any other, serious mistakes are constantly made. It seems trite to say that the purpose of food is to feed; and yet, if this view of food were practically adhered to, half of the diseases which kill human beings might be prevented. One reason why the 'in-

ferior' animals, in spite often of hard labor, ill-usage, and exposure, escape many of the complaints which fall to the lot of man, is, that they are truer than he is to the guiding instincts implanted by the Creator, and they decline to take into their systems what was never intended to be there. Happy would it be for their owner and lord if he were as wise as they. As it is, we violate natural law, day by day, both as to the material of food and as to the circumstances under which it is consumed.

"Of the particular kind of food which may be best for certain persons, or in certain conditions, nothing need be said here. On that subject competent medical advice can always be obtained, and very often, years of suffering might be saved, if good counsel were sought and followed; but we may fairly lay down general principles which all would do well to adopt. As to the material then,—the simpler, plainer, more lightly cooked, less seasoned it is, the better. Good-natured stomachs may sometimes and for a while put up with such improprieties as veal pastry, pickled vegetables, hard-boiled eggs, hot rolls, and "sweets" made of bad sugar and worse butter; but the time for revenge arrives, and an outraged liver fails in its functions. Or even if the digestive organs perform their part fairly in spite of some of these abominations, their troubles seldom end here, and probably ninety-nine out of every hundred inhabitants of "civilized," that is unnaturalized, countries put God's beautiful chemistry of human nutriment utterly out of order, not so much by what they eat as by what they drink. The poor jaded apparatus, which if fairly treated would, of its own magic, have converted the humblest forms of aliment into healthy increase of bone, muscle, and nerve, is not only worried with things which it cannot use, and hardly knows how to get rid of, but, because it is not omnipotent, and its overtaken energies are apt to fail, it is goaded first to excessive effort and then to downright rebellion by the thing which has been called, with only too much truth to the meaning of the

parent Latin word, *Stimulant*. The dictionaries say: *Stimulus*, "any sharp pricking instrument, a sting, a whip;"—and truly the alcoholic provocatives which flourish under the titles of "fine old" this, and "golden" that, and "sparkling" the other,—all of them prick, and sting, and flog! Probably nothing will induce any great majority of the people in this pampered age to deny themselves all titivation from the goad of Bacchus, but it would be a good thing if the excesses of even the sober and well-conducted could be restrained. There is an almost invariably fatal disease which affects very respectable persons, and is due entirely to alcoholism, not however to drunkenness, or anything approaching it, but to the habit of frequently taking small quantities of alcoholic compounds—usually wine or spirits—and in very many cases during the morning, or at least without solid food. This malady is insidious, and in its early stages gives its victims little inconvenience beyond the loss of appetite and a very gradually increasing irritability; but its progress is steady, and in its final development, its effect is destruction. It is grievous to see the strong man and the fair woman first disqualified for a happy life, and then brought to an untimely grave, by this process of self-poisoning; and if these pages fall into the hands of any who have been induced to fly to stimulants for energy under pressure of work, or for relief from pain, or for momentary comfort to a disturbed resentful stomach, we would entreat them by all that is to be valued in a sound mind and body, to pluck the snake out of its lurking-place before it be too late. The very desire for stimulus is an indication that something is wrong, and the stimulus of alcohol is the last thing that should be resorted to as a remedy. The true antidote would most likely be found in rest, pure air, exercise, and the correction of some previous error in diet. But whoever resorts to alcohol in any form, as a set-off against feeble appetite, nausea, and depression, is in league with death. In fact, when the testimony of medical science becomes duly regarded, the wine-factors,

brewers, and distillers will be abolished as the slave-drivers went to the wall when the slaves were released. The enlightened and free repudiate the lash.

The question may of course be asked, What beverages are best? And the reply is, Those which nature supplies ready for use. First and foremost is water, of all drinks, when fairly pure, the most refreshing and wholesome; and its purification is no difficult matter. There may be places, here and there, where the water supplied for public use is incurably bad; but cases of this kind are exceptional, and are becoming more and more rare. It may be confidently laid down as a general rule that water passed through a simple charcoal filter is, to say the least, harmless, and forms the safest of all habitual drinks. As a directly nutritive beverage, milk stands first, and when special sustentation is needed, beef tea, which has been allowed to cool, and has then been thoroughly cleared from fat, is the most eligible of all forms of liquid nourishment. No doubt many, if they speak the plain truth, will be compelled to acknowledge that these things are too tasteless and unexciting to satisfy them, and for that reason they prefer what is both expensive and noxious. All we can say to such persons is, that to be dissatisfied with what all human experience proves to be good, and to put one's self at the mercy of that which not only destroys its hundreds of thousands every year when taken to excess, but seldom fails to do mischief even when used sparingly, is not a policy that reason can justify. But if it be desired, not so much to please a few little nerves of the palate or to gain a temporary glow of physical excitation, as to maintain a stomach and brain in working order, then the licensed slayers of mankind and their noxious compounds can be dispensed with.

This will be the place, perhaps, to speak of a so-called "article of luxury," the consumption of which is a very prevailing habit. Did any doctor ever seriously advise the smoking of tobacco? If so, it must have been as a medicinal remedy, which in the hands of a competent authority may be of service. But we are not

now treating about medicines; we are inquiring as to what may be habitually used without medical guidance. And those who know anything of the effects of tobacco will not hesitate to say that however little harm it may seem to do to some of its devotees, no one would be the worse, and most persons would be the better, for abstaining from it. If this be admitted, then, considering how much disadvantage is often connected with its use, it surely is the part of wisdom to let it alone. If a luxury, it is a costly one, and to a large number of its votaries decidedly injurious. Its tendency, as all writers on *Materia Medica* agree, is to decrease muscular energy; and if so, it is evident that the heart, and with it the whole of the muscular system, is liable to be enfeebled under its influence.

Turning in another direction we may say, with equal emphasis, to young ladies and others who delight in "sweets," that if they wish to be preserved from a blotchy face, a coated tongue, a sickly aspect, and a dyspeptic aversion for proper food, they would better spurn all kinds of confectionery.

The subject of food ought hardly to be dismissed without a word as to the time and manner of taking it, and on these points two or three rules suffice. Meals should be as nearly as possible at the same time every day. Long fasting should be avoided, and nothing solid should be eaten late at night. Haste in eating is a foe to digestion. The writer has learned to his astonishment that the drivers on a certain line of public conveyances in London are allowed only seven or eight minutes for dinner; but as might be expected, he has found that almost every one of the men in question complains of the symptoms which indicate chronic dyspepsia, and after a few years of service their health generally breaks down. This is the case even with the most temperate.

Gentlemen who take the most important repast of the day—luncheon—standing, and in the hurry of business, though they do the best they can in the way of making amends during the evening dinner,

still suffer irreparable injury, and they would gain in the long run if they should resolutely set apart a quiet half-hour somewhere between 12 and 2 for substantial food. In fact, not only haste but fatigue tends to prevent efficient digestion; and hence the desirableness of getting the mid-day meal early as well as quietly.

Mastication, however, requires not only time, but teeth, and therefore one of the secrets of health is to keep them in order, and when, in spite of all preservative efforts, they decay, to replace them by new ones. New teeth, if of good quality and skillfully fixed, are like a new existence; and although the boon is at present costly, it is to be hoped that Dental Hospitals will help to bring it within the reach even of the poorest.

The subject of mastication reminds us of a habit which, to no small extent, interferes with nutrition, and that is the dilution of the digestive juices by too copious draughts, and by drinking even while food is on its way to the stomach. Very little liquid is necessary to aid assimilation, and much is sure to impede it.

The remaining element requisite to the efficiency of feeding, is a cheerful and composed spirit. Hence it is better to take food in pleasant company than alone, and it is incumbent on every one at table to avoid all gloomy subjects of conversation, and to contribute as much as possible to general geniality.

DANGER FROM IMPURE WATER.

It is well known that typhoid fever, dysentery, cholera, and a variety of epidemic diseases are communicated from one person to another through the medium of water. Probably the great majority of wells are so situated that they may readily become contaminated by the germs of disease which escape from the body with the discharges of patients suffering with diseases of the class mentioned, and it is a matter of marvel that destructive epidemic diseases are not much more frequent than they are. The following incident, related by a recent writer upon health topics has probably been reproduced

in all its essential details thousands of times:—

“The famous tea-water pump in Broad Street, near Golden Square, London, is believed to have been the means of killing five hundred persons with cholera in a single week, during the epidemic of 1854; and its agency in disseminating this fearful scourge was detected in the following curious way: It has long been known that water which contains five or six grains of lime, or magnesia, to the gallon, is much the best for making tea, because this amount of the mineral ingredients mentioned prevents the solution of certain astringent principles of the leaf. Thus, the Broad Street pump became known, and highly appreciated, because it furnished water impregnated with exactly the right quantity of lime to make ‘the cup which cheers, but does not inebriate,’ in its full perfection; and when the cholera broke out in its neighborhood, people, who removed to other quarters of London, continued to send to this pump to procure their tea-water. One old lady in particular, who took refuge in the distant suburb of Hampstead, sent her maid-servant every day three miles for a kettle of water, to the Broad Street pump, and this old lady and her maid were the only persons attacked with cholera in Hampstead. The attention of health officers was finally attracted to the pump as a disseminator of disease, and after taking away the pump-handle the pestilence notably decreased in the neighborhood. The water of this pump-well was afterward proved to have become contaminated by the soakage into it of discharges from the bowels of cholera patients using cess-pits in its vicinity, such discharges being now known to form the chief agents in propagating this terrible disease.”

EXERCISE.

GIVE your brain sufficient food and an abundant supply of oxygen, and then give it a fair amount of good hard work every day, if you wish to maintain it in a high state of healthy activity. Barristers and clergymen, who use their brains much, are the longest-lived men in the country, showing plainly that regular brain work is good for the general health as well as for the efficiency of the nervous system in particular. The muscular system must be treated in a similar manner, if you do not wish it to become subject to fatty degeneration. An unused

muscle shrinks, and becomes soft flabby, presenting an appearance of marked contrast to the brawny arm of the blacksmith. Instances of the feebleness of tissues thus preserved frequently present themselves to the notice of the surgeon. A muscle is called upon to perform a vigorous contraction, but it snaps in the effort. The heart itself is sometimes torn asunder in attempting to send an extra supply of blood to some needy limb. No man can afford to lower his general vitality for the sake of mere idle gratification. He never knows when he may require all the energy which can be stored up in his tissues. A railway accident, a runaway horse, a run to catch a train, a fall on the ice, or even a fit of coughing, may bring a life of misery or an earlier death to one who would have passed unscathed through them all had he allowed his nerves and muscles to wear away in vigorous activity, instead of carefully preserving them, like smoked bacon, in the fumes of tobacco.—*Sel.*

A LADY'S TESTIMONY.

I HAVE taken to bloodless diet, and feel very happy about it, not only because my means are uncomfortably limited, and the cheaper food gives me a delightful feeling of greater independence, but also, and more so, because I no more feel it a mockery to invoke God's blessing on the food I am about to partake of, knowing that the poorest of my fellow-men may secure himself such sustenance of life as I have used, and that for this same reason I am no more leading my poorer neighbors and servants into the temptation to envy, to covet, etc. I consider that anybody looking about with unprejudiced eyes must be convinced by the ways of Providence that no one was meant to live upon flesh-meat. For whatever is most necessary to sustain human life abounds most; and even so-called overpopulation cannot quite destroy it. Thus it is with air and water. Whatever the armies of manufactories and large cities may do in the way of drainage, gas, open fire-places, and poisonous chemicals, a few miles away from them, in the country, the air is as pure and invigorating as in the days of our strong and healthy forefathers, the mountain springs as pure and plentiful as can be desired. Fields and gardens are improved by a greater number of workers, while animals become rarer where population increases. Not only the smaller

kinds of birds and quadrupeds known under the name of game in this country, but the larger kinds of other ages have disappeared here, and are almost universally extinct now. Nay, even artificial breeding cannot supply sufficient flesh-meat for the markets of this island. The overdrawing is even telling upon the astounding abundance of the vast ocean. The cherished native oyster becomes rarer every year. Miss _____ has persevered in our vegetarian diet, notwithstanding the doctor's prohibition. But we could not make up our minds to give up what we so much value, and internal conviction made us rely on the help of God in a matter that seems so much like the spirit of his Son's teachings.—*Vegeta. Mes.*

AN ODD ADVERTISEMENT.

[THE following curious advertisement appeared in a newspaper printed at Providence, R. I., Jan. 6, 1800. It was sent us by Mr. Chas. H. Freeman, who discovered and preserved it. It is useful in showing how condiments and liquors were regarded, at least by Mr. Nicholas Branch, at that time.—Ed.]

To be Sold by Nicholas Branch.

At his Refectory.

West End of the Bridge, Providence, R. I.

Solid Arguments,
Consisting of

Bread, Butter, Cheese, Ham, Eggs, Salmon,	} Agitations.
Neats Tongue, and Oysters.	
Cyder, Vinegar, Salt, Pickles,	} Grievances.
And Sweet Oil.	
Pepper Sauce, Mustard, Black Pepper,	} Punishments.
Cayenne.	
Wine, Brandy, Gin, Spirits, Bitters, Porter,	} Superfluities.
Snuff, Tobacco and Segars,	

N. B.

Any of the above articles to be exchanged for Necessaries.

Namely: French Crowns, Spanish Dollars, Pistereens, Cents, Mills, or Bank Bills.

Credit given for Payment, 30, 60 and 90 seconds, or as long as a man can hold his breath.

Rudiments gratis, namely:

Those indebted for must not be nor think it a if they should meet for calling for such and supposing it not to make immediate

Arguments Agitated Grievance Punishment Superfluities Necessary Payment

To Nicholas Branch.

[Reprint from the Detroit Lancet, July, 1882.]

THE RATIONAL TREATMENT OF CONSUMPTION.

BY J. H. KELLOGG, M. D.

READ BEFORE THE CALHOUN COUNTY MEDICAL SOCIETY
MARCH 7, 1882.

In this paper I shall devote no attention to the etiology or pathology of pulmonary consumption, but shall consider what I believe to be the rational, or at least the most rational, method of treating this disease. It is generally

acknowledged by physicians of extensive experience that few maladies at all curable are less amenable to treatment than tubercular consumption. Every few years the medical world is startled by the announcement that a specific remedy has at last been discovered by means of which this formidable disease may be successfully treated, but the new discovery soon proves to be a myth, based on a too limited experience, or errors in diagnosis, or both. The "cod-liver oil cure," the "beef blood cure," the "kounyssa cure," and numerous other specific cures, are all evidences of the obstinate nature of the disease, each having had its day and been in a large measure displaced by some remedy more lately come into popular favor. I have no panacea or specific method to present; but having had the opportunity of observing quite a large number of cases of this disease under favorable conditions for controlling the habits and regimen of the patient, and watching the effects of treatment, I take this opportunity to describe the methods pursued and the results in a few cases, believing that even the smallest contribution to the successful management of a malady which occasions one-tenth of the total number of deaths from all causes annually occurring in this and most other civilized countries, will be considered of value.

I scarcely need say, so well is the fact recognized, that an early diagnosis and early treatment are of the greatest importance in the management of this malady. When the disease has developed sufficiently to be recognized, it is of the greatest importance that prompt and vigorous measures should be employed at once. The greater portion of the sufferers from this disease sacrifice their only hope by delay and procrastination. If the disease has obtained even the slightest foothold, there is no time to be lost.

In the management of cases of this disease, I consider the following as the principal indications to be met by treatment:—

1. To check the febrile action.
2. To improve the patient's nutrition.
3. To arrest the night-sweats.
4. To alleviate the cough.
5. To develop the lungs.
6. To sustain and invigorate the patient by every possible means.

After giving a fair trial to most of the various popular methods in the treatment of nearly two hundred cases of this disease in its various forms and stages, I have adopted the following general methods for meeting the above indications, and have found them the most satisfactory in their results:—

1. *To Check the Fever.*—The daily elevation of the bodily temperature, as shown by the thermometer, is a perfect index, in all but very exceptional cases, of the progress of the disease. When the deposit of tubercle or the dissolution of tissue is advancing rapidly, the temperature, especially at night, rises considerably above the normal point. In rapidly advancing cases, the morning temperature will also be found one, two, or more degrees above the normal. As the daily rise of the temperature is usually preceded by a more or less distinctly marked chill, which generally occurs in the forenoon, it is important to prevent this, if possible, by keeping the patient in bed until an hour or two after the usual time for chilling has passed. We have noted in many cases a marked periodicity in the time of the chills, which gave rise to a suspicion of malarial complication, but did not yield to antiperiodic remedies. Sometimes the chill appears early in the morning; in other cases later in the day. Whenever it does appear, it should find the patient in bed, well covered with warm woolen blankets. At the first indication of a rise of temperature, signifying the approach of the chill, jugs filled with hot water, hot bricks, or hot water bags, should be placed to the feet and about the body. Care should be taken, however, not to induce profuse sweating.

When a patient has no well-defined chill occurring at regular hours during the day, but has wandering and irregular sensations of chilliness, this plan cannot be adopted; but the patient should remain quiet in bed during the early part of the day, and if the fever runs very high, it is best for him to remain in bed several days, provided, of course, that he can have at the same time such other treatment as is needed. By this means his vital strength will be economized; but he must not be confined in bed for a long period, as he needs the advantages of out-of-door air and exercise. As soon as the fever is materially lessened, let him resume his daily walks in the open air. Copious water drinking, at least to the amount of three to six glasses of water a day, is another means by which the fever may be successfully lowered. The employment of tepid sponge baths at the time when the fever is highest, is a means of great comfort to the patient. Either pure water, or water containing one-third its measure of alcohol, may be employed in sponging the patient. Inunction of the dry, parched skin, after moistening it by a wet hand-rub, is another valuable measure not to be forgotten.

When the patient is strong and does not suffer

with night sweats, a wet compress worn about the chest often affords very great relief from the parching fever. The compress should be removed at midnight or soon after, as the sweating usually begins after that time, and might be encouraged by the compress.

2. *To Improve the Patient's Nutrition.*—As defective nutrition is undoubtedly one of the causes of consumption, improvement in this direction should be made an important object in treatment. In order to accomplish this, attention should first be given to improvement of the patient's digestion. If he is suffering with any one of the various forms of dyspepsia, he must receive appropriate treatment for the same. This is a matter of very great importance, though it is too often overlooked, the supposition being that the stomach disorder is the result of the pulmonary disease, while the reverse is almost invariably the case. In the majority of cases of consumption which have come under my observation, the history of the disease has shown that it was preceded by some form of digestive disorder. The diet of the patient should consist of such food as he can best digest. In many cases, milk, eggs, well cooked grains, and a small allowance of fruit, constitute the dietary best adapted to the condition of both lungs and stomach. Dr. Salisbury, of Cleveland, who has a peculiar theory of the nature of this disease, requires his patients to abstain from the use of farinaceous and saccharine foods altogether, and to depend for sustenance almost wholly upon lean meat and a very small allowance of bread. He sometimes requires his patients to take several pounds of beefsteak or other lean meat daily, and claims very extraordinary results from this plan of treatment. The plan is undoubtedly successful in cases of the disease in which acid or farinaceous dyspepsia is a prominent feature. But in cases in which the patient is suffering with painful dyspepsia, or with gastric catarrh,—conditions which very often accompany the different forms of consumption—a flesh diet is very strongly contra-indicated. With the exception of cases in which the acidity was very extreme, we have never thought it necessary to confine patients to an exclusively nitrogenous diet, and believe there are several evils which may arise from this course. We shall have to receive considerable more evidence than has yet been produced to convince us of the necessity of depriving consumptive patients of fruits and grains, and confining them wholly to a flesh diet.

The daily employment of massage, and inunction, at least, two or three times a week, together

with daily sponging with salt and water, are excellent means for stimulating nutrition. To these measures should be added, when possible, a sun-bath daily, from half an hour to two hours in length, according to the patient's strength, and the frequent use of electricity in the form of general faradization. Hydrochloric acid and various other digestive stimulants are also useful in cases in which their employment is indicated, but we consider the dietetic treatment of far greater consequence than medication any sort.

3. *To Arrest Night Sweats.*—The exhausting night sweats, from which many patients suffer, particularly at night, or at times when asleep, should be checked as speedily as possible. The best means of accomplishing this, is the use of the salt sponge bath, sponging the body with a mixture of alcohol and water; in proportion of one part of the former to two of the latter, and sponging the body with hot water at bed time. The last remedy we employ very frequently, and are much pleased with the results afforded by it in the prevention of these exhausting sweats. It is important that opium in every form should be avoided in these cases, as its use is certain to increase the sweating. This fact should be borne in mind in the selection of a remedy to relieve a cough when troublesome.

4. *To Alleviate the Cough.*—This troublesome symptom is often one of the chief sources of weakness and increasing debility, since it deprives the patient of his necessary rest at night, and exhausts him with continued and harassing efforts to relieve the unpleasant sensations by which it is provoked. Often the cough is produced, not by the condition of the lungs themselves, but by some form of irritation in the throat. This chronic irritation is not infrequently accompanied by elongation of the palate. The cause of the cough should be sought for, as it not infrequently happens that much annoyance and waste of strength will thus be saved. If the difficulty is chiefly in the throat, it will be readily relieved by soothing gargles or other appropriate treatment, such as packing the throat at night with a wet towel, a strip of spongio piline, or a bandage made for this purpose. When this means is used, the throat should be bathed in cool water on removing the bandage in the morning, and should then be rubbed with a little vaseline or sweet oil to prevent taking cold. Very simple remedies are often very effective in relieving the most distressing cough, as gargling the throat with hot water, holding small pieces of ice in the mouth, taking frequent sips of hot lemonade, and similar means.

Another measure which is very effective for

the relief of cough is the application of fomentations to the chest or between the shoulders. These applications should not be made too frequently, and should not be continued too long at a time, usually not more than fifteen or twenty minutes if the patient perspires easily, and great care should be taken to prevent exciting perspiration by the fomentations. This may sometimes be avoided by the use of dry heat by means of hot-water bags, heated bricks, etc. A compress of flannel moistened in tepid water applied to the chest at night will frequently be found to be a most effective means of relieving a harassing night cough. Two or three thicknesses of flannel should be used, and the compress should be wrung as dry as possible, and should be covered by two or three folds of dry flannel. When the compress is employed, the chest should be rubbed the next morning with the hand dipped in cool or tepid water, and then carefully dried, anointed with vaseline, and covered with dry flannel or a chest-protector through the day.

The use of the various popular cough mixtures for the relief of cough is generally attended by much more harm than good, even though the patient may be rendered temporarily more comfortable, as the majority of them contain opium, to which their effectiveness is chiefly due, but which increases the exhausting night sweats. As a general rule, patients run down and the disease progresses much more rapidly after beginning the use of opium in any form.

It should be borne in mind that cough is only a symptom, the significance and importance of which varies greatly in different cases. Sometimes it is best that it should be encouraged instead of being repressed. When the patient expectorates very freely, the cough is a necessary means of relieving the chest of matters which would seriously interfere with the functions of the lungs if retained. The kind of a cough which it is important to relieve is an irritable, ineffective cough, unaccompanied by any considerable degree of expectation. This kind of a cough is sometimes excited by the irritation occasioned by an elongated uvula, for which the proper remedy is snipping off the end of the offending organ. Loaf sugar, honey, or a mixture of honey and lemon juice, and other simple remedies familiar in every household, are often effective in relieving a cough which is accompanied by little expectation. In cases in which cough cannot be relieved in any other way, and is very distressing and painful, demulcent remedies or some one of the simple expectorants should be employed. If necessary, bromide of potash in ten to twenty grain doses may be combined with the expectorant.

[TO BE CONTINUED.]


 TEMPERANCE AND MISCELLANY. 

Devoted to Temperance, Mental and Moral Culture, Social Science,
Natural History, and other interesting Topics.

WRITTEN FOR GOOD HEALTH.

THE DEVIL'S KINDLING-WOOD.

In a home there once were children two. The daughter frail
and fair.

While the son had dark and speaking eyes, with wavy
chestnut hair;

The father kept in his cellar stored, his well fill'd keg of
beer.

And he drank and gave the sweetened dregs to his children
without fear.

The time came when the fair young girl would tottle
across the floor,

And wait as he went for his brimming cup, beside the cel-
lar door,

If he tarried long, her voice rang out, childish, and sweet,
and clear—

As she quietly waited beside the door—"Come Papa—
baby, beer."

The sound smote hard on the father's heart, as it fell upon
his ear,

Oh! what if that son and daughter too, should love too
well the beer,

His babes were young, he spurned the thought, surely
'twas not too late

To snatch from their lips the tempting cup, and save from
the drunkard's fate.

The years flew by. The children grew comely and fair and
gay;

And dearer far to that father's heart than Ophir's gold
were they.

Home-guarded and shielded the daughter grew, the par-
ent's heart to cheer.

But the son went forth to the world and fell, slain by
the love of beer.

A little spark on a shaving fell. The flame leapt high and
higher,

And sooner far than the pen can tell, the great city was
on fire.

The home roof now no more will shield wife, mother,
daughter, child.

On, on, it chased the fleeing crowd, out to the prairie wild.

They tell us that beer is a "creature of God, useful, and
healthful, and good;"

But, lads and lassies, believe it not, 'tis the devil's kind-
ling-wood.

A little spark from his own right hand, and up leaps the
quenchless flame.

And it burns and consumes, while fuel lasts, for such is
the devil's game.

Go place a match by a smooth, dry log, thinking to kindle
a fire,

And the blackened embers your folly will mock, and laugh
at the strange desire;

But place beside them a handful of straw, and shavings,
and sticks, and brush.

And the fire will catch, and the log will burn, and the
flames will leap and rush.

Yes, the flames will run, and roar, and rush, and leap to 'rd
the bending skies.

And the sparks and embers be carried afar, and new
kindled flames arise—

And you've burned your house, and your neighbor's barn,
and fences, and forest, and field;

Like this is the ruin that cider, and wine, and lager beer
will yield.

'Till you'll own at last but six feet of turf, and tenant a
drunkard's grave;

And the wife you cherish will beg for bread, or toil like a
very slave.

Then if you believe they are "creatures of God, useful,
and healthful, and good."

Your children may know when 'tis all too late, 'tis the
devil's kindling-wood.

L. C. H.

WRITTEN FOR GOOD HEALTH.

**PRACTICAL WORK IN TEMPERANCE
SCHOOLS.**

BY JULIA COLMAN.

PRACTICE here, as elsewhere, tests the truth of theory. Fortunately, we can show success by a large number of cases. We have no means of tabulating results, for the temperance school is as much at the service of all the community as is the Sabbath-school; and people of all churches, and all sorts of temperance organizations, as well as individuals who work for temperance on their own responsibility, avail themselves of its methods and its complete set of requisites. The guiding star in the work is to give a clear idea of the nature and effects of intoxicants, and to press home with religious force the duty of total abstinence,—a double star, where science and religion mingle their complementary rays and shine with a clear, white luster.

The first case I ever knew was under my own supervision several years ago, with a very imperfect supply of requisites. Here was worked out practically the outline of the lessons that now form the Juvenile Temperance Manual. The school embodied most of the main features of the present school, as detailed in my last article; and it succeeded in making both the scholars and the teachers enthusiastically in love with temperance science, and ready to do many kinds of temperance work. It was in a little conservative inland village of the Empire State, where the people were so very apathetic that everybody joined in saying there was no use trying to do anything there for temperance; everything had been tried to no good purpose, and some of the best temperance people were thoroughly indignant that two Christian temperance women should undertake to do any thing. When these two women left the place, the school went down, but seed had been sown that sprang up and brought forth fruit. In

less than two years from that time a temperance revival prevailed, in which nearly every adult inhabitant signed the pledge, and a sweeping religious revival followed, such as had not been known in the place for many years, and the influence of the work the temperance women had done was recognized.

A little village in Iowa had two saloons, more than enough to debauch all the boys in the place; and one faithful temperance worker, believing thoroughly in the saving power of the truth, sent for Manual, Catechisms, tracts, and other requisites. She showed them to others like-minded with herself, and explained what she supposed could be done with them. The ground was thoroughly looked over, and the possibilities canvassed. Rather unwillingly they came to the conclusion that the proposed school must be held on Sabbath afternoon, if at all; and so they decided to adapt it to the day, for they believed in the sanctity of the Sabbath. They appointed the first meeting, talked it up among their friends, had it mentioned in the paper and given out in the pulpits, and the occasion saw an audience of two hundred, including all ages from the gray-haired grandsire down to the primary scholar that could not read. The aims and methods were fully explained and the need of such instruction dwelt upon.

A portion of the tract "Temperance and the Children" was read, and other suitable matter. All who were present formed themselves into a school, arranged and classified like a Sabbath-school, with main school, primary, and advanced classes. They came together every Sabbath afternoon to pursue their studies of the scientific reasons why no one should ever use intoxicants, with all the devotional services usually found in the Sabbath-school. This was kept up for several months. Suitable tracts were distributed, a large amount of discussion and investigation was elicited, and the people became thoroughly posted as to the evil nature of intoxicating drinks, and they used their knowledge practically with regard to the drinks vended in the place. Gradually the saloons lost their customers and the boys of the village being placed beyond their reach by the teachings of the temperance school, they found their business no longer profitable. Liquor selling, though it is a lazy business, is yet in these days not so attractive as to be kept up unless it brings a good income. Social

pressure was also brought to bear upon the one owner of the saloon who lived there, and he decided to sell out to the other owner of the saloon who resided elsewhere, and could not be so easily reached. The latter was angry at the success of the temperance women everywhere, and he determined to keep his saloon open out of spite. When last heard from there was good prospect that he, too, would succumb. In this case the temperance school by a large co-operation became evidently a center of light and power for the entire community, as it does to a greater or less extent wherever it is sustained.

Quite a large number of schools in different places are held at the hour of the closing of the public schools, the children going to them directly, before going home. The evening chosen is preferably Monday evening, so that the children may prepare their lessons during the leisure of the preceding Saturday. About three years ago I visited a very flourishing school of this kind in the western part of the State of New York. The superintendent was a very intelligent Christian woman, and though she had a house full of children of her own, she managed to enlist other ladies and set them all to work, so that every teacher kept up the attendance of her own class and the officers soon became so well posted that they could conduct it in her absence, which was sometimes unavoidable, and finally continuous; but if she was absent herself, her children were there if they were able to be out. Her eldest son, at an age when many boys drift away from Sabbath-school and religious interests, was kept largely by his interest in the Temperance school where he assisted in rigging up apparatus, making experiments, providing material for object lessons, etc. At a large convention of temperance workers held in the place, this lady, by special request, left her babe for an hour, and marshaled her temperance scholars in the convention hall, showed their proficiency in the recitation and in the understanding of the catechism, conducted experiments, displayed charts, and in many ways so interested the workers assembled, that many temperance schools were started in neighboring localities soon afterward.

When for any reason the superintendent cannot or does not choose to enlist officers and teachers to assist in the enterprise, it is almost necessarily let down to the primary school methods; no, I should say to infant class methods, for they do

not even have the advantage of study hours enjoyed by the regular primary school. The children sit in one large class and are talked to *en masse*, of course in a style and upon topics that the youngest can understand, so that the older ones inevitably come to feel it irksome in the course of time and fall out. If classifying and grading in the Sabbath-schools and common schools bring about undeniably better results, we should not ignore that fact in the management of the temperance school. Quite as important also is the fact that all these adults necessarily associated in the management of a classified school are indirectly getting an admirable training for all kinds of temperance work, and one, too, which the most of them would not be very likely to get in any other way. For these first principles really lie at the foundation of all temperance effort. It needs a firm and deeply seated conviction, thoroughly corroborated by facts, that alcoholic drinks are incorrigibly bad, in order to make us fight them to the bitter end without quarter.

Besides all this, the temperance school movement is but the beginning of better things and a broader field. Scientific temperance teaching is destined to become a part of the curriculum in our public schools, and in order to effect this, we want teachers prepared to teach it without waiting for its introduction into the Normal school or for scholars of the temperance school to grow up, both of which results are coming, however, in the near future. But if a large number of adults be associated in the management of the temperance school, some of them are likely to be day-school teachers at the time, or soon afterward, or to be associated with day-school teachers in such a way as to influence the latter favorably, which is a most important help. This is a much pleasanter method than to have the temperance women obliged to give lessons directly to teachers, as in some cases where temperance text-books have been introduced in places not previously having the privilege of a temperance school. But the influence is often more direct.

We know of many places where this teaching after public school hours takes place in the various school-rooms by the associated teachers in the temperance school, either in place of the weekly meeting of the latter, or as supplementary to it. This is quite a feature in some sections. In one city the opening was so

cordial that rooms in no less than sixteen of the twenty large schools were placed at the disposal of the young women associated in the management of the temperance school. Unfortunately, the latter had been in operation so short a time that the young women did not feel qualified to act long as teachers in the public schools even for an hour once a week, and this admirable plan failed through lack of efficiency in their temperance school training.

In more than one manufacturing town the young ladies have established night schools three or four nights in the week for apprentice boys and errand boys. Often the latter are of a very low class, and need to be taught morals, manners, and even the rudiments of all learning, the three R's. These are taught faithfully, and a saving amount of temperance with them, and in such a way as to make the latter look attractive to them.

It will be seen from the above instances that the methods of the temperance school are very flexible and that they can be, and that they are, practically suited to all grades of society like the Sabbath-school. The idea that has largely prevailed in the past, that temperance teaching and especially the Band of Hope, "is most needed by the degraded classes, is rapidly giving way before the certain knowledge that all classes must be thoroughly instructed in the first principles of temperance before the latter can be made to prevail. We are feeling keenly the lack of intelligent views of temperance among our legislators, doctors, ministers, political men, and journalists, and we ought to educate the children from whom these ranks are recruited. It is therefore now largely the aim of those who conduct temperance schools to teach the children of the middle classes, the children of our Sabbath-schools, and to make them well grounded in the first principles of temperance.

THE PRIMAL OBJECT OF EDUCATION.

BY MRS. E. G. WHITE.

"EDUCATION," says Webster, "is properly to draw forth, and implies not so much the communication of knowledge as the discipline of the intellect, the establishment of the principles, and the regulation of the heart." By a misconception of the true nature and objects of education, many have been led into serious and even fatal errors. Such a mistake is made

when the regulation of the heart or the establishment of the principles is neglected in the effort to secure intellectual culture, or when eternal interests are overlooked in the eager desire for temporal advantage.

The great object of life is well defined in the old-time catechism, "to glorify God, and to enjoy him forever." To make the possession of worldly honor or riches our ruling motive, is unworthy of one who has been redeemed by the blood of Christ. It should rather be our aim to gain knowledge and wisdom, that we may become better Christians, and be prepared for greater usefulness, rendering more faithful service to our Creator, and by our example and influence leading others also to glorify God.

Here is something real, something tangible. Not only words, but deeds; not only the affections of the heart, but the service of the life, must be devoted to our Maker. To bring man back into harmony with God, to so elevate and ennoble his moral nature that he may again reflect the image of the Creator, is the great purpose of all the education and discipline of life. So important was this work, that our Saviour left the courts of Heaven, and came in person to earth, that he might teach men how to obtain a moral fitness for the higher life. For thirty years he dwelt as a man among men, passed through the experiences of human life as a child, a youth, a man, endured the severest trials, that he might present a living illustration of the truths he taught. For three years as a teacher sent from God he instructed the children of men; then, leaving the work to chosen co-laborers, he ascended to Heaven. But his interest in it has not abated. From the courts above, he watches with the deepest solicitude the progress of the cause for which he gave his life.

The character of Christ is the one perfect pattern which we are to copy. Repentance and faith, the surrender of the will, and the consecration of the affections to God, are the means appointed for the accomplishment of this work. To obtain a knowledge of this divinely ordained plan should be our first study, to comply with its requirements our first effort. Solomon declares that "the fear of the Lord is the beginning of wisdom." Concerning its value and importance he declares, "Wisdom is the principle thing, therefore get wisdom, and with all thy getting, get understanding." "For the merchandise of

it is better than the merchandise of silver, and the gain thereof than fine gold. She is more precious than rubies, and all the things thou canst desire are not to be compared unto her."

He who is following Divine guidance has found the only true source of happiness, and has gained the power of imparting happiness to all around him. No man can really enjoy life without religion. Love to God purifies and ennobles every taste and every desire, intensifies every affection, and brightens every worthy pleasure. It enables men to appreciate and enjoy all that is true, and good, and beautiful.

He who is seeking with diligence to acquire the wisdom of human schools, should remember that another school also claims him as a student. Christ was the greatest teacher the world ever saw. He brought to man knowledge direct from Heaven. The lessons which he has given us are what we need for both the present and the future states. He sets before us the true aims of life, and how we may secure them.

In the school of Christ, students never graduate. Among the pupils are both the old and the young. Those who give heed to the instructions of the Divine Teacher, constantly advance in wisdom, refinement, and nobility of soul, and thus they are prepared to enter that higher school, where advancement will continue throughout eternity.

Infinite Wisdom sets before us the great lessons of life,—the lessons of duty and of happiness. These are often hard to learn, but without them we can make no real progress. They may cost us effort and tears, and even agony, but we must not falter or grow weary. We shall at last hear the Master's call, "Child, come up higher."

It is in this world, amid its trials and temptations, that we are to gain a fitness for the society of the pure and the holy. Those who become so absorbed in less important studies that they cease to learn in the school of Christ, are meeting with an infinite loss. They insult the Divine Teacher by their rejection of the provisions of his grace. The longer they continue in their course, the more hardened are they in sin. Their retribution will be proportioned to the infinite value of the blessings they have spurned.

Those who consider it brave and manly to treat the claims of God with indifference or contempt, are thereby betraying

their own folly and ignorance. While they boast their freedom and independence, they are really in bondage to sin and Satan.

The religion of Christ lifts man above every debasing, groveling vice. Linked to the Infinite One, partakers of the Divine nature, we are clothed with a perfect panoply against the shafts of evil.

Every faculty, every attribute with which the Creator has endowed the children of men, is to be employed for his glory; and in this employment is found its purest, noblest, happiest exercise. While religious principle is held paramount, every advance step taken in the acquirement of knowledge or in the culture of the intellect, is a step toward the assimilation of the human with the Divine, the finite with the Infinite.

The mind gradually adapts itself to the subjects upon which it is allowed to dwell. If occupied with common-place matters only, to the exclusion of grand and lofty themes, it will become dwarfed and enfeebled. If never required to grapple with difficulties, it will after a time almost lose the power of growth. As an educator, the Holy Scriptures are without a rival. Nothing will so impart strength and vigor to all our faculties as requiring them to grasp the stupendous truths of revelation.

The Bible is the most comprehensive and the most instructive history that men possess. It came fresh from the fountain of eternal truth; and a Divine hand has preserved its purity through all the ages. Its bright rays shine into the far-distant past, where human research seeks vainly to penetrate. In God's word only we find an authentic account of creation. Here we behold the power that laid the foundation of the earth, and that stretched out the heavens. In this word only can we find a history of our race unsullied by human prejudice or human pride.

In the word of God the mind finds subjects for the deepest thought, the loftiest aspirations. Here we may hold communion with patriarchs and prophets, and listen to the voice of the Eternal as he speaks with men. Here we behold the Majesty of Heaven, as he humbled himself to become our substitute and surety, to cope single-handed with the powers of darkness, and to gain the victory in our behalf. A reverent contemplation of such themes as these cannot fail to soften, purify, and ennoble the heart, and at the

same time to inspire the mind with new strength and vigor.

A clear conception of what God is, and what he requires us to be, will lead to humility. He who studies aright the sacred word will learn that human intellect is not omnipotent. He will learn that without the help which none but God can give, human strength and wisdom are but weakness and ignorance.

But that which, above all other considerations, should lead us to prize the Bible, is that in it is revealed to men the will of God. Here we learn the object of our creation, and the means by which that object may be attained. We learn how to improve wisely the present life, and how to secure the future life. No other book can satisfy the questionings of the mind or the cravings of the heart. By obtaining a knowledge of God's word, and giving heed thereto, men may rise from the lowest depths of degradation to become the sons of God, and the associates of sinless angels.

In the varied scenes of nature also are lessons of divine wisdom for all who have learned to commune with God. The pages that opened in undimmed brightness to the gaze of the first pair in Eden, bear now a shadow. A blight has fallen upon the fair creation. And yet, wherever we turn are traces of primal loveliness. Wherever we may turn, we hear the voice of God and behold his handiwork.

From the solemn roll of the deep-toned thunder and old ocean's ceaseless roar, to the glad songs that make the forests vocal with melody. Nature's ten thousand voices speak his praise. In earth, and air, and sky, with their marvelous tint and color, varying in gorgeous contrast or softly blended in harmony, we behold his glory. The everlasting hills tell us of his power. The trees wave their green banners in the sunlight, and point us upward to their Creator. The flowers that gem the earth with their beauty, whisper to us of Eden, and fill us with longings for its unfading loveliness. The living green that carpets the brown earth, tells us of God's care for the humblest of his creatures. The caves of the sea and the depths of the earth reveal his treasures. He who placed the pearls in the ocean and the amethyst and the chrysolite among the rocks, is a lover of the beautiful. The sun rising in the heavens is the representative of Him who is the light and life of all that he has made. All the brightness and beauty that adorn the

earth and light up the heavens, speak of God.

Shall we, in the enjoyment of the gifts, forget the Giver? Let them rather lead us to contemplate his goodness and his love. Let all that is beautiful in our earthly home remind us of the crystal river and green fields, the waving trees and the living fountains, the shining city and the white-robed singers, of our heavenly home,—that world of beauty which no artist can picture and no mortal tongue describe. "Eye hath not seen nor ear heard, neither have entered into the heart of man, the things which God hath prepared for them that love him."

To dwell forever in this home of the blest, to bear in soul, body, and spirit, not the dark traces of sin and the curse, but the perfect likeness of our Creator, and through ceaseless ages to advance in wisdom, in knowledge and holiness, ever exploring new fields of thought, ever finding new wonders and new glories, ever increasing in capacity to know and to enjoy and to love, and knowing that there is still beyond us joy and love and wisdom infinite,—such is the object to which the Christian hope is pointing, for which Christian education is preparing. To secure this education, and to aid others to secure it, should be the object of the Christian's life.

AN INTÉMPERANCE SPEECH.

THE truth often appears brighter when contrasted with the dark sophistry of error. Seldom is this better illustrated than by the following speech of Hon. Carter Harrison, Mayor of Chicago, welcoming to his city a convention of brewers and distillers:—

"Gentlemen: I have been invited by the reception committee to appear on this platform and welcome you to Chicago. I do so with pleasure, because I recognize you as representing one of the grandest interests of our country. Next to the farmer, you, gentlemen, engaged in the manufacture and sale of beer and liquor, are the largest organization in America. Four hundred millions of dollars stand behind you, furnishing employment to men of all classes. As such representatives, I welcome you. You are called together to organize for your own defense against fanatics; against well-meaning men who are not fanatics, men who thank God daily that they are not as other men are. Should you stop the brewing of beer and the distillation of whisky, you would hear a howl from the

farmers throughout the length and breadth of the land. If I thought you were men banded together to make drunkards, to de-grade mankind, I would be the last to welcome you, but I find that there is not a single article of food which does not contain alcohol. I cannot believe that the good God intended that his good works made for man's good should be stopped because there are brutes in the world who cannot drink without getting drunk. The history of prohibition shows that if you stop using liquor you get opium, and hasheesh, and other evil drugs. In prohibitory Maine there is as much drinking as in free Illinois. I don't believe that it was the intention of the divine Creator to create what he believed to be good, and then have a few fanatics, who cannot take a liberty without being brutes say to you, 'You sha'n't drink and you sha'n't manufacture, because we can't smell the stuff without going into the gutter.' Government is intended to give to all people the utmost liberty compatible with the safety of others. Your faces show that you hate drunkards—but can you stop drunkenness by passing laws? No. It must be stopped by firesides, by lectures, and—if the preachers would only think of it—by moral suasion, not by throwing hell down a man's throat along with his whisky. All other trades and manufactures form leagues and associations; but, when liquor-dealers meet, fanatics throw up their hands in holy horror, and the mayor of Chicago is condemned for trying to make men sober. The great Leader of Christianity went not among those who thought themselves better than other men, but among the lowly. I can't believe that the government which takes \$60,000,000 from the sweat of your brows will take that sweat and then damn the fellow that sweats. Don't get into politics. Go before the common sense of the people, and you will win. Tell the people that you are going to have your rights under the flag. Every man in America has a right to do as he pleases, so long as he don't hurt his neighbors. Does liquor hurt? I am a pretty respectable looking man, and I've been drinking ever since I took some liquor for the colic when I was three hours old. What will carry me off finally will be corn bread, hog, and hominy. Why don't they preach a crusade against the hogs and cattle because there are such things as trichinae and the rinderpest? Go on, and manufacture beer, the best temperance drink ever made. An apple falls and lies on the ground in the sun. When you pick it up there is a little cup of beer in it. Beer is already in the apple, and you only hasten the operations of nature."

Had he undertaken to burlesque the subject, this effort would have been a complete success. But when such erroneous statements and such abominable sentiments are spoken under the pretense of sensible talk, the miserable weakness of the cause they represent is betrayed. The remark about \$60,000,000 being taken from the sweat of the brows of distillers and brewers appears as a ghastly joke when we consider that never do these men sweat from honest labor, if at all; and that every cent of this money has been worse than squandered by those who have earned it. And each cent represents nine other cents thus wasted, the most of which is wrong not only from the hard labor of the victims of this traffic, but also from the cries and sufferings of those to whom it rightly belongs. Again, what a grim visage has this joke! "Your faces show that you hate drunkards!"

But comment cannot improve this speech. Its true nature appears best in its own naked iniquity.

G. C. TENNEY.

SOMETHING TO HARDEN THE HEART.

"GIVE me something to harden my heart," so said a middle-aged man, as he entered the bar-room of a tavern and walked up to the bar-keeper. "Here, L., give me something to harden my heart."

It was uttered in part, evidently, as a witticism; for, as he spoke, he looked about the room for the smile of approbation. And yet there was a sneer in the tone of the request, like the jeer of some fiend from the pit, for the speaker and all his associates well knew that the bar-keeper was a professor of religion; and they knew, too, that he had not the apology that he was only the bar-keeper, hired to perform a service about which, personally, he might have had scruples, for he was the owner of the hotel as well as the bar-keeper in it, and a man that they knew was not wanting in sense, nor ignorant of the great truths and rousing appeals that have been poured forth on the subject of temperance.

To this man was addressed the call, "Give me something to harden my heart!" And he knew what was meant, and took down the decanter of brandy, and handed it to the speaker, that he might help himself. And as he did so, a cold shudder passed over me, as I thought of that expression of the Saviour: "Woe unto the world because of offenses! It must needs be that offenses come; but woe to that man by whom the offense cometh."

Something to harden the heart! Alas, too

true a description of what the one asked and the other gave him! Beyond question, it hardened the hearts of both—of the one, again to drink and again to sneer at religion, and again to make light of the fearful fact that his own heart was hardened, and fearfully hardening for ruin; and of the other, to smile upon the one who insulted alike himself and his profession of religion, and to sell his principles, and his self-respect, and his conscience, all for the paltry price of his glass that was purchased.

Something to harden the heart! Remember it, young man, and touch not the social glass. Remember it, parent, and do not permit your child, and invite not your friends, to partake of it. Remember it, ye dealers, who, for filthy lucre, are pouring out the tide of death, and hardening your own hearts and those of your victims for the Judgment. Remember it, ye friends of temperance, and see in the light of it how blessed is your work, by which you may keep the hearts of thousands tender, and perhaps save souls from death.

Something to harden the heart! Tremble at the thought of anything that shall do so fearful a work, and rather seek for that which may soften, and subdue, and melt your heart in penitence at the cross, and prepare it for duty and for heaven.—*Sel.*

Give Yourself.—Said a mother to me one day, "When my children were young, I thought the very best thing I could do for them was to give them myself. So I spared no pains to talk with them, to teach them, to read to them, to pray with them, to be a loving companion and friend to my children. I had to neglect my house many times. I had no time to indulge myself in many things which I should have liked to do. I was so busy adorning their minds and cultivating their hearts' best affections that I could not adorn their bodies in fine clothes, though I kept them neat and comfortable at all times. I have my reward now. My sons are ministers of the gospel, my grown up daughter a lovely Christian woman. I have plenty of time now to rest, plenty of time to keep my house in perfect order, plenty of time to indulge myself in many ways, besides going about my Master's business whenever he has need of me. I have a thousand beautiful memories of their childhood to comfort me. Now that they have gone out into the world, I have the sweet consciousness of having done all I could to make them ready for whatever work God calls them to do. I gave them the best I could,—myself."

POPULAR SCIENCE.

Parasites of the Fly.—A microscopical discovery, which may prove highly important in a sanitary point of view, has been made by Thomas Taylor, M. D., microscopist of the Department of Agriculture. About a year ago, while dissecting out the proboscis of a common house-fly, Dr. Taylor discovered minute snake-like animals moving quickly from the proboscis. Continuing his experiments from time to time since then, he found that house-flies are very frequently inhabited by these animals. He has found them generally in the proboscis of the fly, although sometimes they are found in the abdomen; and he thinks that since flies are carriers of these minute snake-like animals, they may in like manner be conveyers of contagious germs, much smaller bodies. These animals measure about eight one-hundredths to one-tenth of an inch in length, and about two one-thousandths of an inch in diameter. They are classed under the *Nematoidæ*, genus *Anguillula*. They are much larger than trichinæ or so-called vinegar eels. Mr. Taylor has found as many as seven of these animals in the proboscis of one fly, and three more in the abdomen, ten in all. Sometimes none are discovered, sometimes one only, but frequently four are seen. Their presence is usually indicated by a rolling movement in the anterior portion of the proboscis. When this is observed, if a drop of water be placed upon it, the animals will readily leave the proboscis and take to the water. They are frequently observed passing in and out of the proboscis, to and from the water, as if the proboscis was their natural home. A power of 25 diameters is sufficient to observe their general movements, but for examinations of their structure from 250 to 500 diameters is necessary. They are perceptible to the naked eye in certain light. Mr. Taylor proposes to make the experiment of feeding flies on trichinosed meat to test the possibility of trichinæ or the eggs of trichinæ being taken up by flies.—*Scientific American*.

Magnetic Music.—At the late Paris Exhibition an electrical instrument was exhibited by means of which a tune hummed into a transmitter was magnified in volume to the strength of a hunting-horn. The instrument was not available for articulation.

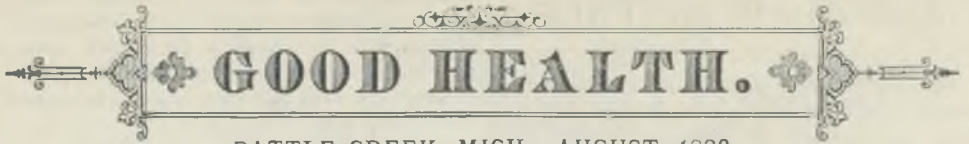
A New Marvel.—An apparatus has recently been invented called the *Glossograph*, the purpose of which is to record speech automatically by making easily deciphered characters with the rapidity of the normal flow of speech.

The instrument is provided with delicate levers which rest upon the different parts of the lips and tongue, and with slender wings which swing before the nostrils. The act of articulation moves these delicate levers, and partly by electricity, and partly by mechanism, the motions are transferred to a writing pencil, which marks the sounds with great precision on paper. The deciphering of the characters requires but little practice. The inventor, Herr Gentili, gave an exhibition of his invention at Liepsic a short time ago, and demonstrated the practical utility of the apparatus.

A Wonderful Tree.—On the State House grounds, writes a correspondent from Columbia, S. C., there is to be seen one of the most curious trees in existence. At first sight it seems like the ordinary palmetto, so common in South Carolina; but closer inspection reveals the fact that it is a production of art and not of nature, being entirely constructed of iron painted to resemble the natural tree in bark and foliage. The leaves and twigs are so exactly copied from nature even to the smallest minutia, and wave so gracefully in every passing breeze, that even the acutest observer will fail to discover the deception at a distance of five rods. This curious specimen of workmanship was constructed to commemorate the South Carolina Soldiers who died in the war, and the names of these martyrs of the "Lost Cause" are inscribed upon brass tablets at the base.

A Powerful Light.—The largest machine yet made for producing the electric light has been constructed by Edison. It is of 150 horse power, and will maintain 1200 lamps, giving a 16-candle power each, this making a total light of 192,000 candles.

A New Method of Tempering Steel.—A new method of tempering steel has been tried in France, with the most promising results. The steel is heated in the usual way, but instead of being plunged into water or oil, it is subjected to great pressure while hot. Steel tempered in this way is said to possess a remarkably fine grain.



BATTLE CREEK, MICH., AUGUST, 1882.

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

TERMS, \$1.00 A YEAR.

CONTAGIOUSNESS OF CONSUMPTION.

THE evidences of the contagiousness of pulmonary tuberculosis are receiving constant additions from numerous sources. One of the most valuable and interesting contributions to the subject is the report of the experiments recently made by an eminent French savant, M. Giboux, which shows very clearly that it is in the highest degree dangerous to inhale the air expired by consumptives in a confined space. His experiments were performed upon four young rabbits, all of the same litter and born of healthy parents. Two of them were kept in a large wooden cage into which was introduced twice a day about one cubic foot of air which had been expired by animals in a consumptive state. After the introduction of the infected air, the cage was closed for two hours. In another similar cage two other rabbits were kept and treated in precisely the same manner, except that the impure air, before admission to the cage, was made to pass through a layer of cotton wadding containing carbolic acid. After a few weeks, the rabbits in the first cage showed evidences of failing health, as indicated by loss of appetite, dullness, diarrhoea, excessive thirst, and loss of flesh. On being killed at the end of 105 days, the bodies of both were found to be generally infected with tuberculosis. The liver, kidneys, and lungs were thoroughly diseased, especially the upper lobes of the lungs. The other rabbits were also killed and examined, but no trace of tuberculosis was found.

These experiments show very conclusively that the expired air of consumptives

is thoroughly infectious, but the condition under which the infection occurred would indicate that close confinement with a consumptive patient is necessary for infection, and that no danger need be apprehended if care is taken to secure thorough ventilation of apartments occupied by consumptives. It scarcely need be suggested that a healthy person should never occupy the same bed with a consumptive person, and should carefully avoid inhaling the breath of such a patient.

DISEASED MILK.

GREAT attention has been bestowed of late years, by the health officers and boards of health of large cities, upon the prevention of the adulteration of milk. Stringent laws, with heavy penalties attached, have been enacted for the protection of consumers of this important article of food, but very little attention has been given to the condition of the cows from which the milk is obtained, provided only that it were unadulterated. In our opinion, the obtaining of milk from healthy animals is of far greater importance than its freedom from "pump-water." There is no doubt but that a large share of the milk furnished to New York, Boston, and other large cities, is obtained from cows that are, to a greater or less extent, diseased. It is a fact well known among stock-raisers that consumption, a disease that may be communicated through the medium of milk, has become a very common malady among cows, and especially among imported breeds. A tuberculous cow may continue to yield a large quantity of milk for months after pulmonary

disease is fully developed ; and so long as the yield is sufficient to render her keeping profitable, the average dairyman will be quite unlikely to send her to the butcher. It is really unsafe to use the milk furnished to customers in our large cities, without a knowledge of the condition of the cows producing the same, and this is a kind of information exceedingly difficult to obtain. No one but an officer appointed for the purpose could hope to get at the facts with reference to this matter. It is to be hoped that health authorities will give this matter much more serious attention than it has yet received. We do not doubt that a large share of the diseases which carry off so large a proportion of the infantile portion of the race, owe their origin to diseased milk.

CHRONIC TRICHINOSIS.

ACUTE trichinosis, or infection of the body with trichinæ, is now recognized as a dangerous and often fatal disease. It is well known that many deaths annually occur from this cause, and it is also believed that thousands of cases of trichinosis occur which are not recognized as such, being mistaken for typhoid fever, rheumatism, cerebro-spinal meningitis, cholera morbus, and a variety of other diseases, the symptoms of which are simulated by trichinosis. It is not so well known, however, that there are dangers from the encapsulated trichinæ which remain in the tissues after recovery from the acute and immediately dangerous symptoms of the disease.

Dr. Jos. G. Richardson, an eminent physician of Philadelphia; recently contributed a paper to the *Western Medical Reporter* in which he calls attention to the fact that the encysted trichinæ which remain in the muscles after an attack of trichinosis, if the patient recovers, are a cause of common and very grave maladies, such as muscular rheumatism, paralysis, and even consumption.

Dr. E. C. Wendt, of New York, reports that he has observed that encysted trichi-

næ give rise to muscular rheumatism, and that the pains are increased by pressure, and are not aggravated by changes in the weather, as is true of rheumatism from other causes. Prof. Navratil, a French physician, gives an account of a case of paralysis of the larynx on one side, in the post-mortem of which it was discovered that the paralyzed muscles were filled with trichinæ.

There is probably little room to doubt that there are a very large number of diseases and diseased conditions which result from poisoning with these parasites, even when the patient recovers from the acute symptoms of the malady.

SANITARY HUMBUGS.

THERE are various popular errors respecting disinfection which at this season of the year become of very great importance, as they may be the occasion of very great injury to life and health, and possibly may be responsible for fatal disease. One of the most common and mischievous of these is the popular notion that all that is required for complete and efficient disinfection is to destroy the bad smell which may have called attention to the necessity for doing something in a sanitary direction. There is a class of substances known as deodorants which are largely used for the purpose indicated by their name, and in which the public repose an amount of trust of which, unfortunately, they are by no means worthy. Chief among the articles of this class are carbolic acid and chloride of lime. It is generally believed that the odor of carbolic acid is a guarantee of thorough disinfection. It ought to be known that carbolic acid is a very poor disinfectant. It does not destroy infectious or contagious matter unless applied in a very strong solution, as one part to four or five of alcohol or some other solvent. Simply sprinkling the floor and walls of a house with a solution of carbolic acid is by no means disinfection. It is a mere pretense of disinfection. Such sham disinfection is

more productive of harm than of good, since the odor of the volatile acid will silence the fears of those who are exposed to the infection without in the least degree diminishing its virulence.

What has been said of carbolic acid is also true of chloride of lime. When used in sufficient quantity, this is a good disinfectant; but in the quantity in which it is usually employed, it cannot be thought to be of any real value.

IS THE VITALITY OF THE RACE INCREASING?

ENTHUSIASTIC sanitarians point with pride to the fact that the longevity of the race has been nearly doubled since the general introduction of sanitary measures into the great centers of civilization. That there is an increase in the average longevity of human civilized beings, is beyond question, as the fact has been shown by statistics of undoubted reliability. Another fact is equally apparent, however; namely, that examples of remarkable longevity are far less frequent at the present day than they were two or three centuries ago. At any rate, if the records of the older towns and cities in England, and in continental Europe, are to be relied upon, the greater frequency of disease and types of diseases, are facts which also point to the diminution rather than increase of the real vital stamina of the race. Some interesting facts in this connection were recently brought out in a paper contributed by Dr. Rabagliata, of the Bradford Infirmary, to the *British Medical Journal*, upon the question, "Has the duration of human life in England increased during the last thirty years?" Following are his conclusions as summarized by the Sanitary Engineers:—

"His conclusions are: (1) That there has been an increase, which is entirely attributable to the better management and prevention of fevers; (2) that if the deaths from fevers be deducted, the present rate of mortality is higher than it was 30 years ago; (3) that if the mortality among chil-

dren and young persons has diminished, the mortality among males above 35 and females above 45 years of age, has markedly increased; (4) that the main cause of the increased adult mortality are worry and anxiety, affecting chiefly the nervous system, heart, and kidneys. The mortality from disease of the nervous system has increased 25 per cent in 30 years; that from diseases of the circulation, 50 per cent; that from diseases of the kidneys, 148 per cent."

PARTIAL BLINDNESS FROM TOBACCO-USING.

DR. S. C. AYERS, of Cincinnati, O., reports in the *Lancet* of that city the following case of partial blindness, resulting from tobacco-using. Dr. Jonathan Hutchinson, of the Royal London Ophthalmic Hospital, several years ago reported a large number of such cases, and others have been since reported by other physicians.

"The following case I report as the only one of the kind which has ever come under my observation. It proves one point, that tobacco can seriously affect vision, and there is abundant evidence from other observers that atrophy of the optic nerve does follow its excess as well as that of alcohol.

"In this case the patient was not a smoker, but a chewer of the weed. In Hutchinson's case, the use of tobacco by smoking only is mentioned, and the same is true of cases mentioned by German writers. This arises from the fact that chewing is not nearly so common abroad as it is in this country.

"I have never seen any statistics which mention excessive chewing of tobacco as a cause of amblyopia, which makes this case one of interest. There seems to be no good reason why chewing should not be as injurious as smoking. The contact of tobacco with the mucous membrane of the mouth is as promptly, if not more promptly felt in the brain as the effects of smoke from a pipe or cigar. Then, too, men can chew where they would not be allowed to smoke; as, for instance, at their workbenches, and in places of business where there would be danger from fire, or objection to the odor of smoke.

"Mr. E., at 50, a tall, slender man, but healthy and well preserved for one of his age. He had led a temperate life in all

things but indulgence in tobacco. He was not, and never had been, addicted to the use of intoxicating liquors, and smoked very seldom.

"He had recently noticed a mist before his eyes, and had difficulty in recognizing his friends, and vision had failed so much that he could not read ordinary print. His sight had failed decidedly within the past few weeks, and he had at last become alarmed. He was in the habit of chewing ordinary plug tobacco, and used from one to two ounces daily."

DIPHTHERIA COMMUNICABLE BY CATS.

THE *Sanitary News* reports the following case:—

"A case is reported at Oberlin, O., in which a cat took diphtheria and then conveyed it to five children. A few months later the physician who had attended these cases was called to attend a young lady afflicted with diphtheria, who died on the third day of her illness. She and her sisters had a few days previously been charitably engaged in removing some obstruction from the throat of their pet cat, subsequent investigation revealing the fact that the obstruction was diphtheritic membrane. In these instances, the cats were made the carriers of the contagion by contracting the disease either from some pre-existing case among animals of their own kind, or among people who petted them, or it may be from some unsanitary surroundings."

Dr. Hewitt of Lake Superior relates another case in which this malady was communicated by a cat:—

"For several days a pet cat had been suffering from enlarged cervical glands, other cats were similarly affected. The cat died in the house, and on the day of its removal, there broke out in his family, a most virulent form of diphtheria, resulting in the death of two of his children, the doctor barely escaping with his life. Up to this time the neighborhood was remarkably free from sickness of any kind. The disease spread, and very soon a large portion of the inhabitants were down with the disease."

It has long been known that various domestic animals are subject to this disease, and it is important that careful observations or experiments, should be made for the purpose of determining the degree

of danger from this source of contagion. Cats often visit their feline friends at neighboring houses, and if there is danger of the spread of so serious a malady as diphtheria in this way, it is important that the fact should be known and the public warned of the danger from this source. So long as there are grave grounds for suspicion, it would at least be well to exclude cats from the family circle whenever there is an epidemic of the disease prevailing in the vicinity.

A COMPOUND OXYGEN MIRACLE.

SINCE calling attention to this gigantic swindle several months ago, we have received several letters of inquiry respecting it, and now and then a letter in which the writer feels called upon to rise in defense of the nostrum. A letter of the latter class has just come to hand, the writer of which claims to have secured very marvelous results from the use of this much-vaunted remedy, the only active remedy of which, as shown by Dr. Prescott's analysis, when used in the manner directed by the advertisers, is simply the vapor of warm water. Our correspondent claims that the inhalation of Compound Oxygen produced so profound an effect on his system that he felt its influence even in his toes. He had for a long time suffered considerable inconvenience from a loose toenail which, as he says, was attached to the flesh so slightly that it could easily have been pulled off. But in a short time after he began the use of Compound Oxygen a new nail began to grow, and he now has a substantial toe-nail. He does not pretend that the newly formed nail is better than the original nail, or even that it is in all respects a first-class nail, but simply that it is a "nail."

This certainly is a very remarkable result, and we are now prepared to believe that at least some claims made for this new-fangled remedy are true. We have all faith in the veracity of our correspondent, and would advise all who are troubled with loose toe-nails, hang-nails, ingrowing toe-nails, plug-nails, and all other diseases of this part of the body, to pur-

chase a bottle of Compound Oxygen, which will cost only the small sum of \$15.00, and possesses the advantage that it will do no harm if it does no good. But if any one prefers to do so, he can purchase at the drug-store 2 cent's worth of nitrate of lead, 1 cent's worth of nitrate of ammonia, and a 5 cent glass bottle, and procure a pint of rain-water which can probably be obtained free of cost. The ingredients should be mixed and well shaken in the bottle each time before using. The expense will probably be reduced considerably by making a large quantity. If any of our readers employ the remedy for the relief of the above named diseases, we shall be glad to publish a report of the results.

A GOOD EDUCATION.

THERE seems to be a very great diversity of opinion in the world as to what a good education consists in. Edward Everett, himself a very highly educated man, is said to have used the following language in speaking on this point:—

“One of the most highly-educated of our countrymen used the following language: ‘To read the English language well, to write with dispatch a neat, legible hand, and to be master of the first four rules of arithmetic, so as to dispose of, at once, with accuracy, every question of figures which comes up in practice,—I call this a good education. And if you add the ability to write pure, grammatical English, I regard it as an excellent education. These are the tools; you can do much with them, but you are hopeless without them. They are the foundation; and unless you begin with these, not with flashy attainments, a little geology, and other ologies and oshophies, are ostentatious rubbish.’”

We should want to add to the above that the well-educated individual must have a sufficient knowledge of himself, of his body and its functions, to enable him to understand and appreciate the importance of observing the laws of health. With these few accomplishments, thoroughly and not superficially acquired, a man should be considered as well educated. This cannot be said of a person who lacks

any of the above-named acquirements, no matter how much knowledge of the dead languages, the sciences, *belles-lettres*, or what not, he may possess. We have often met persons who had graduated from some college, perhaps from a university, and considered that they had finished their education, when, as a matter of fact, they had utterly neglected the very foundation of real practical, useful education. They had acquired many facts, had become in some ways accomplished, but had utterly failed to appreciate the character of real education, both as to manner and matter.

A very great share of the educating of the present day has been very appropriately designated as cramming. The main idea seems to be to get into the student's head the largest possible number of facts, without regarding the manner in which they are introduced, or their practical value in the performance of his life work. There is as great need of reform in the methods of education as in any direction. There can be no doubt that errors in this particular lie at the foundation of a very large share of the increasing weakness of the race.

THE METAPHYSICAL DISCOVERY.

A WESTERN correspondent, who has had some experience in frauds, among others, “Compound Oxygen,” writes us respecting the remedy which is announced as “The Metaphysical Discovery,” and which he describes as follows:—

“What is your opinion of the purported remedy known as ‘Mrs. W. G. Brown's Metaphysical Discovery,’ which is based upon the theory that the human system is fed and sustained by a great salt fountain located beneath the scalp; and that when this fountain becomes dry, the hair blanches or falls out, the eyes become sunken, the teeth become decayed, the liver, kidneys, and all the great organs of the body fail to perform their work; the sewers of the head become plugged, the flesh dies and degenerates into mucus, and the victim perishes. It is claimed that all the diseases or symptoms to which mankind is heir, have one common cause or root, which is located in the head, and that the only way to reach it is to apply moisture, strongly impregnated with salt, through the eyes, ears, and scalp. Can you ascertain the component parts or make-up of the fluids used? You can procure samples of them for analysis by addressing the manufacturers. Is this a swindle similar to the ‘Compound Oxygen Fraud,’ which I have tested?”

We are left in doubt as to what the metaphysical element of this discovery consists in, unless it be in its possible potency as a means of exciting the imagina-

tion of weak-minded people. We can imagine that this remedy may be of vast service to the race, if not as a curative agent; at least, to quote the words of a contemporary respecting another fraud, as a "Foolometer" to measure the length, depth, and breadth of the foolishness of the nineteenth century. If any one will procure for us a specimen of this most unmitigated swindle, we will take measures to ascertain the exact nature of its ingredients.

HOME-MADE BEER.

THE leader of a HEALTH & TEMPERANCE CLUB writes as follows:—

"I take the liberty to address a few lines to you by way of inquiry. There is a large proportion of the members of our H. & T. society that make and drink "home-made beer." I have become convinced that the teetotal pledge does not admit of its use, and I wish to speak upon that subject at our next meeting. Please inform me if there is alcohol or narcotic in it. It is made of sugar, hops, spruce pine, chickerberry, sarsaparilla, and yeast, set for fermentation. Also please inform me at what stage of fermentation alcohol begins to form in cider.

"Is the beer above described a healthful drink?"

Small beer differs chiefly from other beer, hard cider, and wine, in the smaller proportion of alcohol which it contains. The amount of alcohol is not very large, probably not sufficient to produce intoxication; but it is, nevertheless, sufficient to give to the beverage a characteristic property which is not possessed by any non-alcoholic drink, and which, undoubtedly, may result in the formation of the appetite for alcoholic drinks. Any liquid containing sugar, or its equivalent, which has undergone fermentation, is sure to contain alcohol. Cider usually contains alcohol within a few hours after it has been made. As soon as the slightest degree of fermentation has begun, some alcohol may be proved to be present by careful chemical tests.

In its relations to health, small beer or spruce beer cannot be considered so inju-

rious as ale or hard cider, but we know of no property possessed by this beverage which can properly entitle it to the credit of healthfulness. As far as it has any influence at all, its influence must be bad. There can be no question but that this beverage is excluded by each one of the three pledges recognized by the HEALTH AND TEMPERANCE ASSOCIATION. We are not a little surprised that any one should be in doubt on this question.

Strange Inconsistency.—Vivisection, or physiological experiments upon living animals, has been vigorously opposed for several years back by various humane organizations in different parts of the civilized world. As the result of the efforts of an organization of this kind in England, a law has been passed in that country forbidding experiments of this kind altogether. Some little time ago, Dr. Lister, an eminent surgeon, complained to Carl Vogt, the renowned naturalist, that he had been obliged to leave England, and take up his residence in France, for the purpose of completing some physiological experiments upon horses which he had previously begun. Prof. Vogt called attention to a grave inconsistency on the part of the English government in making such stringent laws for the protection of its brute subjects, while its human subjects were far less carefully guarded, remarking: "In the case of a human being the doctor has the whole control; he practices the most dangerous operations and administers the most violent medicines on his own responsibility. Why is it, then, more dangerous for animals than human beings?"

—Hydrophobia seems to be a much more frequent disease than formerly, but the following facts show it to be far less fatal than is generally supposed. The official returns of illness in Paris show that there were 297 cases in that city last year, but only 5 out of the whole number proved fatal. Improved methods of treatment have greatly diminished the mortality of this disease.

STATE BOARD OF HEALTH OF MICHIGAN.

REPORTED FOR GOOD HEALTH.

THE regular quarterly meeting of the State Board of Health was held July 11, at the office of the Board in the capitol, the following members being present: Leroy Parker, of Flint, President; Rev. D. C. Jacokes, Pontiac; Henry F. Lyster, Detroit; J. H. Kellogg, Battle Creek; John Avery, Greenville; and Henry B. Baker, of Lansing, Secretary.

SMALL-POX AT FLINT.

Mr. Parker presented an account of an outbreak of small-pox, from which, and a report made by Dr. Lyster who had visited the case at Flint, it was determined that the first case was of a woman aged about 55 years, who traced her exposure to no other source than a peddler, supposed to have come from Canada, who had called at her house. Three weeks after the woman was taken sick, the daughter came down with the disease, and in three weeks more a boy, exposed by the daughter, was taken sick.

This disease was diagnosed as chicken-pox. The health officer diagnosed the case as small-pox, but met with violent opposition when he attempted to quarantine the family. Other cases appeared, called chicken-pox by some and small-pox by others. Finally three physicians of Detroit went to Flint, and assured the citizens that the disease was small-pox, justifying the action of the health officer, who was now seconded in his efforts to restrict the disease.

There are some 15 cases of small-pox, and they are largely due to the willfulness of persons in trying to maintain that it was not small-pox, against the views of the health officer.

BUILDING INSPECTION.

Dr. Kellogg reported as a member of the joint committee of the State Board of Health and State Board of Charities, relative to the plans for a dormitory and school at the Reform School, detailing the changes advised in the plans to make the building more perfect in a sanitary way.

Dr. Avery, as a member of the joint committee from the same Boards to visit the Reformatory at Ionia, reported that the warden assured the committee that the changes they had advised in the shops now under construction at that institution would be carried out.

WORK OF THE OFFICE.

The Secretary presented a detailed report of the work performed in the office during the last quarter as follows: Much correspondence and hard work in starting the immigrant inspection service, which is now yielding valuable information, as well as aiding in preventing the spread of diseases. The inspectors at Port Huron and Detroit now make weekly reports to this Board. Three cases of small-pox have been found on trains at Port Huron, and many cases of measles have been found on trains between Port Huron and Detroit.

The various small documents printed by the Board, for the prevention and restriction of diphtheria, scarlet fever, etc., and instructions as to the work of health officers in the restriction and prevention of various diseases, have been distributed to health officers throughout the State and a great many others, including masters and secretaries and lecturers of Michigan granges to the number of 840. These are sent in the hope that they will bring the subject before their organizations, and thus aid in disseminating information.

The returns of the names of 1,025 health officers in Michigan have been received, examined, and entered on the list, and a second demand sent for returns to such places as are yet dilatory. Correspondence has been larger than usual on account of some new work in regard to immigrant inspection, etc.

A letter was read from the manufacturers of a nursing bottle which had been criticised by this Board as poisonous, having a lead sinker attached to the rubber tube, stating that the objectionable feature would not hereafter be manufactured by them. They have substituted a glass sinker.

VARIOUS DISEASES.

A letter was received from J. Heitmann, health officer at Jamestown, Ottawa County, stating that the scarlet fever was introduced into that township by immigrants from Holland, and eight deaths had occurred.

The Secretary mentioned a report that scarlet fever was communicated to a cashier in a bank at Sault St. Marie, by money received from immigrants passing through there.

Dr. Lyster reported an outbreak of diphtheria in the upper peninsula, the disease having been brought in by immigrants.

A *resume* of the work of other State Boards of Health was read by the Secretary.

SANITARY CONVENTIONS.

An invitation for a sanitary convention at Reed City, signed by the editors, ministers, and doctors of the place, was accepted conditionally. The time for the convention was fixed about the last of November. The Board also voted to accept an invitation and hold a sanitary convention at Pontiac in January.

NATIONAL BOARD OF HEALTH.

The danger to public health interests, caused by insufficient appropriations for the National Board of Health, was considered, and telegrams expressive of the apprehensions of this Board in case the work of the National Board of Health was crippled, were sent to Michigan Senators, and the President and Secretary directed to forward a memorial to Congress on the subject.

CHEMICAL ANALYSIS.

Dr. Lyster introduced a preamble and resolution which was adopted, as follows:—

“Whereas it is essential to the health and well-being of the people of the common-wealth that all articles of food offered for sale should be free from adulteration;

“Resolved, that this Board have such analyses and reports made by experienced chemists, on such articles of food as may be submitted to them by the officers of this Board, and that such sum of money as may be required, not exceeding \$150 for the year 1882, be devoted to the necessary expense of such analyses.”

Dr. Baker offered the following, which was adopted: “That the Secretary be authorized to have analyses made of tissues, secretions, and excretions of the human body, to aid in determining the causes of certain diseases, at an expense not exceeding \$100.”

Dr. Lyster, special committee to report on the present knowledge respecting the cause and prevention of typhoid fever, read the introduction to a paper on this subject, which was accepted with thanks, and he was requested to complete the paper for publication in the reports.

The examination of candidates in sanitary science was postponed until the October meeting of the Board, which will occur October 10.

—Activity is life and health; idleness is death and corruption.

A Step in the Right Direction.—There is hardly any study which is of such practical importance to people generally as that of Sanitary Science, and yet in the courses of education provided by the schools and colleges of this country there can be found no recognition whatever of this most needful branch of instruction. The Royal University of Ireland has shown its progressive spirit by establishing a course in Sanitary Science, and granting diplomas to those who have passed the same. Some of the subjects embraced are as follows: Climate, Chemistry, Geology, Physics, Ventilation, Drainage, Hygiene, Foods, Sanitary Law, etc. It is a somewhat singular fact that the only public recognition in this country of the need of instruction in Sanitary Science is given by the State Board of Health of Michigan, which examines candidates at stated times, those who pass being eligible for health officers.

Discovery of Trichinae.—This parasite of the hog has become so exceedingly common that it is perhaps already nearly forgotten that its discovery dates back considerably less than one-half century, of which the following is a very concise history:—

“For some thirty years subsequent to the first description of the capsule by Hilton, and some twenty-five years after the identification of the parasite itself in man, the same were looked upon as mere harmless curiosities, and that, although Leidy discovered the parasite in the flesh of swine in 1847, still it was not until 1860 that the connection was established between them, appearing, as they had, in two totally different species (men and swine). The honor of this important discovery belongs to Dr. Zenker, of Dresden, Germany. The disease was discovered in a servant-girl, admitted as a typhus patient to the City Hospital in Dresden. She died, and her flesh was found to be completely infested with trichinae.

—To be truly happy, forget your unhappiness in ministering to some one more miserable than yourself. Whoever carries coals to another will warm his own hands.

For the Sick Room.

THIS department will be devoted to the consideration of topics of special interest to invalids and those who have the care of the sick. We shall endeavor to make it in an eminent degree practical, and think it will prove to be a valuable addition to the journal. Questions of general interest coming under the head of the subjects to which this department is devoted will be answered as heretofore in the "Talks with Correspondents."

To Cool the Air in a Sick-Room.—The oppressive heat of this season of the year often turns the scale against the poor sufferer who lies sweltering in his sick-room through the long sultry days which render the months of July and August so oppressive in some parts of the country. A very excellent means of cooling the air of the sick-room is to suspend in various parts of the room wet sheets, which should be frequently sprinkled so as to keep them constantly moist. The temperature of the room may thus be kept several degrees lower than that of the air outside. A correspondent suggests the following as a very excellent means of securing the same end:—

"Have a number, say four, large cakes of ice placed in different parts of the room, preferably at each corner. I would place each cake on a stout netting suspended on a frame. By this means I would give a clear drainage to the water, avoid noise and jar in placing the cake in position, and permit nearly all the surface of the ice to be acted on by the air of the room.

"To the bottom of each net I would attach pieces of bunting reaching entirely across the net and down to a receptacle on the floor. These pieces would conduct the ice-water, and so completely expose it to the action of the air as to abstract a very large portion of heat. I would have the nets suspended as high as consistent with convenience in placing the ice, because the cold air would descend.

"By the above very simple contrivance as much caloric can be subtracted from the atmosphere as is requisite to raise the temperature of the water from the freezing point to nearly or quite that of the room."

Feeding of Young Infants.—A fact which ought to be universally known, is, that nursing infants whose mothers are healthy are far less liable to disease than those raised by hand, on artificial food. This is especially true with reference to diseases incident to the warm season of the year. Very extensive investigations have been recently made in Germany for the purpose of determining the relative mortality of children reared in the natural way, those nursed by wet-nurses, and those fed artificially. It has been found that of 100 children nursed by their mothers only 18 died during the first year, while of those nursed by wet-nurses 29 died, and

of those fed artificially 60, or three-fifths died. Of those brought up in foundling hospitals and similar institutions, the mortality reached the astonishing proportion of four-fifths, or 80 in 100.

Care of Infants in Hot Weather.—A recent number of the *Sanitary Engineer* contains the following excellent advice respecting the care of infants during the warm season of the year. The advice given contains no points which are exactly new, but is concisely put, and is so excellent that it will bear repetition. We suggest with reference to Rule V that it is better to discard entirely nursing-bottles with tubes and joints, as it is wholly unsafe to rely upon their being properly cleansed. The recipe for artificial food given in Rule VI we consider a very good one. Food thus prepared is much superior to any one of the numerous patent foods offered in the market in most cases. The infant food offered for sale at the Sanitarium is, however, superior to anything that can be easily prepared at home, being easy of digestion, unirritating, and excellent for keeping the bowels in order.

"The little children in New York have been dying rapidly during the late heated term, as they do in all large cities under similar circumstances. To prevent this as far as possible, attention to the following rules will be found useful:—

I. An infant should not be weaned between May 1 and October 1, if it can be avoided.

II. All children under two years old should, if possible, be taken to the country during hot weather.

III. The great mortality among infants is mainly due to diarrheal diseases, caused by errors in diet, heat, and impure air. Beware of overfeeding; it is not necessary to feed an infant to quench thirst; a little pure cool water or barley water is often much better for the child than milk.

IV. Feed the child at regular intervals—every two or three hours—until it is a month or two old, after that every three or four hours, and during the night less often. Do not allow the child to go to sleep while nursing.

V. Do not use any patent infant foods except when prescribed by a physician. Do not use any complicated nursing-bottles having tubes and joints, unless extra precautions are taken as to cleanliness. A common twelve-ounce bottle with a nipple of black rubber is satisfactory. As soon as used, the bottle and nipple should be thoroughly rinsed, and then kept entirely under water until again wanted. They should never be allowed to get dry.

VI. The food for infants recommended by the New York Board of Health is the best and cheapest. It is prepared as follows:—

'Boil a teaspoonful of powdered barley

(ground in a coffee grinder) and half a pint of water, with a little salt, for fifteen minutes, strain and mix it with half as much boiled milk, add a lump of white sugar size of a walnut, and give it lukewarm. For infants five or six months old give half barley water and half boiled milk. For infants very costive, use oatmeal instead of barley, cooking and straining as above.

VII. Give well children an all-over wash or bath with cool water twice a day. Give them as much fresh air as possible and keep them cool, but be careful that in a sudden fall of temperature they do not get chilled. Light flannel clothing next the skin is better than cotton.

VIII. Beware of bad smells about the house; but remember it is not the smell itself that is dangerous, but what it is a sign of, and therefore try to discover and remove the cause of the smell, whether it be a leaky soil pipe, a foul sink or garbage box, a filthy cellar, or gutter, or yard, or what not.

IX. If the child has diarrhea, consult a physician at once, and do not waste time with domestic remedies.

X. Let those who have no children to care for try to help the thousands who have, but who are too poor to give them a chance for life, by taking them where they can have a few hours' enjoyment of fresh pure air."

LITERARY NOTICES.

In the *North American Review* for August, the Rev. Henry Ward Beecher writes of "Progress in Religious Thought," pointing out the many influences, social, educational, and scientific, which are by degrees transforming the whole structure of dogmatic belief and teaching. T. V. Powderly, the official head of the Knights of Labor, the strongest union of workmen in the United States, contributes a temperate article on "The Organization of Labor." The well-known British military correspondent, Archibald Forbes, writes of "The United States Army," dwelling more particularly on those features of our army management which appear to him to be most worthy of imitation by the military governments of Europe. "Woman's Work and Woman's Wages," by Charles W. Elliott, is a forcible statement of one of the most urgent problems of our time. The author sees no advantage to be derived from the employment of woman in man's work, whether of brain or of hand: such employment, he insists, only reduces man's wages, and does not really add to the total resources of the whole class of workers. In a highly interesting essay on "The Ethics of Gambling," O. B. Frothingham analyzes the passion for play with rare ingenuity. "The Remuneration of Public Servants," by Frank D. Y. Carpenter, gives matter for serious consideration, both to the civil service reformers and their opponents. Finally, there is a paper on "Artesian Wells upon the Great Plains," by Dr. C. A. White, of the Smithsonian Institution.

THE SUMMER AND ITS DISEASES. By James C. Wilson, M. D. Philadelphia: P. Blakiston, publisher.

A new edition of this popular little treatise, which is one of the series of the "American Health Prim-

ers," has just been issued in a new and cheaper form. The book is one that will pay a thorough perusal, and its new form and price, 30 cents per copy, makes it available to every one. The subjects treated are Sunstroke and Heat-fever, Summer Diarrhea and Dysentery, Cholera-Infantum, Summer and Autumnal Fevers, Summer Colds and Hay Asthma, and the Skin in Summer and its Diseases, all of which are timely and important topics.

WOMAN AT WORK. This most excellent monthly has removed its office of publication to Brattleboro, Vt., and donned a neat, new dress, with the beginning of its sixth volume. We are always glad to welcome the *Woman at Work* to our table, and we trust that its removal to New England will serve to increase its patronage; for it is certainly one of the most elevated and progressive literary journals published. Subscription price \$1.50 per year.

THE *Popular Science Monthly* is always welcome, but the August number is especially attractive. The leading paper is the conclusion of the address by Emil du Bois-Reymond on "The Physiology of Exercise," in which the action of exercise on the nervous centers, its relation to natural selection, and the merits of different systems of gymnastics are considered. Prof. Tyndall has an article on "Progress of the Germ Theory of Disease," and Prof. Wiley on "The Chemistry of Sugar." Many other valuable and instructive papers are found in this issue which evince that this number is in no way behind in comparison with the many preceding issues of this excellent magazine.

HOW WE OUGHT TO LIVE. By Joseph F. Edwards, M. D., Philadelphia: H. C. Watts & Co.

From the somewhat cursory examination which we have been able to give this new volume, we are led to believe that it is well calculated to do much good in the line of popular education on the important subject of health. There is a growing interest in the subject of hygiene manifested on the part of the people in all parts of the country, and there is an increasing demand for works of this class. Too often this demand is supplied by books which are unworthy of the confidence of the public, their authors being charlatans who employ this as a means of advertising some worthless nostrum. This work we believe calculated to do good, and do not hesitate to recommend it as worthy of confidence and well worth perusal, although we are not able to agree with all the views which it inculcates. We welcome every honest attempt to enlighten the masses on the laws of right living, mentally, morally, or physically.

HINTS AND REMEDIES FOR THE TREATMENT OF COMMON DISEASES AND ACCIDENTS. New York: Macmillan & Co.

This is a monograph of a little more than 100 pages, compiled by D. W. Turner, revised, corrected, and enlarged by "twelve eminent medical men belonging to hospitals in London, and one Right Reverend Bishop, formerly surgeon to one of the London hospitals." The work is decidedly English in its make-up, but contains much of use in any country. We can not approve of all its recommendations, however. A good many things would better have been left out. The author apparently approves the use of tobacco, and gives particular rules respecting the use of the weed under the head of "hints to smokers."

Publishers' Page.

Invalid Foods.—We call especial attention to the advertisement of invalid foods which appears in this number. Those who have noticed the advertisement before will observe that several new foods have been added. Great pains has been taken to make these foods all that is claimed for them, and the fact that their sale is rapidly and constantly increasing is evidence that they give satisfaction. A sample package containing specimens of all the different articles will be sent, postage prepaid, on receipt of 50 cents.

Healthful Clothing.—In this number the Sanitary Supply Co., of this place, advertise a number of articles of clothing made with special reference to health, to which we call particular attention. Great pains has been taken to secure in the articles advertised the most perfect attainment of the purposes for which they are designed. That they are appreciated wherever they are known, is evidenced by the fact that they are having very large sales wherever they have been introduced. They are warranted to give satisfaction.

Temperance Lesson-Sheets.—We have recently prepared a series of temperance lesson-sheets which covers, in a very concise manner, the whole subject of temperance. The series of lessons and temperance works in which answers to all the questions can be found, will be supplied to any one for the small sum of twenty-five cents, postage prepaid. The temperance lessons are especially designed for use in connection with camp-meetings and large temperance gatherings, as well as in Sabbath-schools.

WE invite the special attention of our readers to the article in the present number entitled "The Primal Object of Education," by Mrs. E. G. White, which we copy from a recent number of the *Review and Herald*. We believe the ideas advanced by Mrs. White on the subject of education to be correct and fundamental. If such views could be generally promulgated among teachers, and carried out in the school-room, we should have a much smaller number of persons whose lives are practically a blank so far as work and usefulness is concerned, notwithstanding their profession of a very large amount of what is generally known as "culture." The new college recently established at Healdsburg, Cal., with Prof. Brownsberger as principal, promises to be a model institution in respect to the objects aimed at and the methods employed to attain them. We trust that its success will be all that is hoped for it.

OUR series of ten temperance plates is meeting with great favor everywhere. One agent has sent us orders for fifteen sets already. They are really indispensable for temperance lecturers, and will be an ornament to the walls of any temperance home. Temperance clubs and schools will find them exceedingly useful for reference. Every chart preaches the most powerful kind of a temperance sermon. The charts are mounted on cloth, and finished in the finest style. The ten plates, comprising nearly forty different figures, cover the whole field, illustrating completely the physical effects of alcohol and tobacco on the human system. There is

nothing else of the kind published which presents the whole subject in such a forcible manner as do these plates, and energetic agents who are qualified for the work can do well in introducing them. A liberal commission will be allowed competent persons who wish to devote their whole time to canvassing for the charts. A manual of 28 pages accompanies each set.

WE are glad to see that the interest in the Health and Temperance Cause holds its own, notwithstanding the numerous discouragements which have stood in the way of the prosperity of this comparatively new enterprise. We receive frequent letters which indicate that much good has been accomplished by this organization, and we believe that the good work which may be accomplished has only just begun. The reports of various State Societies, the annual meetings of which have already been held, show that the organization is still alive, and that much more work is being done than could be expected under the circumstances. We hope to have the pleasure of attending the annual meeting of the Health and Temperance Society of Ohio, which will be held about the 20th of August.

A New Sanitarium.—Our friends upon the pacific coast who are not already aware of the fact will be pleased to know that active measures have been on foot for some time to put the St. Helena Sanitarium in proper condition for the reception and efficient treatment of invalids of all classes. For some time this institution has not been in shape for the reception of patients who required skillful medical care and treatment, but great improvements have been made during the last few months, preparatory to opening the establishment as a fully equipped sanitarium. Dr. Chase, who is to have medical charge of the institution, has been spending a few days with us, and we have taken pleasure in giving him an opportunity to become acquainted with all the appliances and methods of treatment in use at the Sanitarium. We trust this new enterprise will meet with the success which it certainly deserves.

WE recently had a visit from Rev. Mr. Norton, who has spent a number of years as an independent missionary in India. We were much pleased with his earnest desire to benefit his fellow-men, and took pleasure in presenting him with a full out-fit of our works on health.

Mr. W. D. Condit, who for several years past as a member of the firm of Segner & Condit has been so successful in introducing "Plain Facts for Old and Young," having retired from the above mentioned firm, is now actively engaged in introducing the Home Hand-Book in the West and South. All those who may desire to engage in canvassing for this popular work in territory west or south of Michigan, including the latter State, and east of the Rocky Mountains, should address W. D. Condit & Co., Des Moines, Ia. From a personal acquaintance with Mr. Condit, as well as a business acquaintance of several years, we do not hesitate to recommend him as in every way worthy of confidence, and feel sure that all who may engage with him in business will be pleased with his manner of dealing with them.