The Health Reformer.

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

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The Health Reformer.

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The Mission of Hygienists.

It would seem that the aim and scope of a movement which has been in progress so long as the one in which we are engaged, should be by this time so well understood that any attempt at such a definition as we propose to make in this article would be wholly superfluous. That such is not the case, however, is the conclusion which constantly forces itself upon us as the result of repeated observations. If we may judge from the pointed, caustic paragraphs which are constantly appearing in popular journals, magazines, and newspapers (and these are but the echoes of public sentiment), we may justly conclude that in the eyes of a large majority of individuals, health reformers are looked upon as a horde of insurgents against human happiness; a set of stoics whose flinty natures delight in depriving life of all its pleasures; monomaniacs in whom the promptings of reason and sound judgment are totally eclipsed by the chimerical fancies of a disordered brain; iconoclasts who delight in repudiating and attacking everything which has received the sanction of custom.

The object of this article is not to deny *in toto* the justness of such representations as we have just referred to, although we are glad to believe that they are false as regards the great mass of hygienists; for we fear that there has been, unfortunately, far too much occasion for the prevalence of such views. It is to the probable origin of such prejudicial notions that we wish to call attention.

Perhaps the greatest misfortune common to all reformations is the fact that the novelty of the movement attracts to its ranks a certain number of hot-headed fanatics who eagerly seize upon every favorable opportunity for making a raid upon established usages, and who delight in exhibiting and cultivating oddity and eccentricity. Such individuals do not fail to announce their peculiar views upon every possible occasion, presenting them in the most obtrusive and repulsive manner. By so doing they not only disgrace themselves in the eyes of all sensible persons, but also bring reproach upon the cause to which they claim adherence, and thus upon each individual member connected with it. We are often pained to meet with the most conclusive evidence that there are quite too many characters of this stamp within our ranks; and we here enter an earnest protest that such individuals shall not be considered as representatives of the true character of the movement.

Another evil which has been the curse of every reformation, from man's first emergence from barbarism to the present moment, is the tendency to extremes which seems to be inherent in the human mind. A suspended body which is by any means drawn from a perpendicular, when released, quickly oscillates to a point nearly as far from the perpendicular, on the opposite side. So with men whose minds are deficient in intellectual ballast; the momentum which they acquire in breaking away from the chains of habit and time-honored customs, drives them far beyond the equipoise of truth; and thus they defeat the purpose which first prompted a reform, and find their latter state as bad or even worse than the former. We need scarcely say that the cause of health reform is daily suffering from the ignominy and opprobrium occasioned by the absurd freaks and ultra notions of this class of pseudo-reformers. In a future article we will attempt to define more clearly what we characterize as extreme or ultra.

But there is still another cause which we have become convinced is operating still more powerfully against the interests of this movement than either of those yet mentioned, and to which we shall venture to refer, although

sensible that we are running some risk of incurring the displeasure of many who honestly consider themselves as valiant champions of the cause; viz., what seems to be a vindictive spirit against the whole medical profession, together with the totality of their teachings, on the part of a certain class of persons who are always ready with a volley of wholesale denunciations of every M. D. who carries a pill box. Such a course only excites contempt, and is beneath the dignity of a true reformer who claims to have logic and common sense on his side. We may rejoice in the glorious light of health reform, which gives us true notions of the nature of disease, its cause, and rational treatment; but it will not do for us to allow ourselves to become egotistical and conceited. A health reformer should be of all men the last to look with contempt upon science and its votaries. Without science, health reform would not be in existence. It is only through the instrumentality of the arduous labors and researches of scientific men that we have been delivered from the gross empiricism and superstition of the dark ages. It should be distinctly understood that health reform is not a crusade against science. Neither is it a raid upon the medical profession. All the progress in the treatment of disease, and all the improvement in public hygiene have come through the profession; and whatever may be said concerning many of the deductions of so-called medical science, it cannot be disputed that modern medicine presents a collection of facts relating to the causes, natural history, and characteristic symptoms of individual diseases which are of infinite value to the human family, and which demand the respect of every intelligent person.

Health reform embraces all that is true and reliable concerning the relations of health and disease to habits of life and material surroundings. It gathers the rays of truth from every quarter, and radiates them wherever its influence extends. It has no issue with individuals, it only deals with principles. We have good feelings and wishes for all, and welcome with joy every token of the progress of truth and the exposure of error.

SUCCESS in life is very apt to make us forget the time when we were not much. It is just so with a frog on a jump; he can't remember when he was a tadpole, but other folks can.—*Sel.*

Brain or Stomach; Which?

EVERY few weeks the announcement is made to the world that another great scholar or statesman has fallen a victim to overwork; and the occasion is improved by a certain class of phlegmatic, leisure-loving people, to declaim against the dangers of severe mental labor. The young men in college are solemnly warned against overstudy, if they are at all anxious to avoid premature death. The poor fellows, if at all susceptible of intimidation, are greatly terrified lest "conic sections" and "differential calculus" will "stretch" their bumps of calculation and so lead to softening of the brain.

It would seem to us much more sensible and opportune to give to these students, and to all mental workers, the warning, Do not overwork your stomach, than to be continually raising such an outcry against severe taxation of the mental organs. We more than suspect, and upon just grounds, that, if the whole truth were known, it would be found that a large majority of the so-called martyrs to overwork were, really, victims of a gluttonous appetite. But we would not wish to detract in the least degree from the honor justly bestowed upon such men. Indeed, we may say that in one sense they were killed by excessive mental labors, although this was an indirect cause, and need not have thus operated; for if a man keeps his stomach healthy, he need not entertain any apprehensions concerning the ability of his brain to safely perform all the labor it is capable of doing.

The brain receives one-fifth of the whole blood supply of the body; and its structure and vital activities are such that it is of all the organs of the body the least liable to be the seat of primary disease. It is only when it is not properly nourished that the brain manifests evidences of impairment of function. Men who are said to break down from excessive brain labor, find that their stomachs fail first.

In no class of persons are the evil consequences of overeating, and other dietetic transgressions, more apparent than among people of literary or other intellectual pursuits. The reason of this is easily discerned. The mental worker and the man whose labor is wholly physical sit down together at the same table, partake of the same kinds of food, and consume equal quantities of nutriment. Both eat more than their absolute wants require, and both are obliged to spend the same amount of force in digesting that which is required to supply the

waste of the tissues and disposing of the superfluous amount. This the laboring man can very readily do, for he has a reserve force sufficient to meet the exigency. But the mental worker is not so fortunate; he daily utilizes the full amount of his powers, and so he is obliged to suffer the damage arising from overloading his stomach.

It may be queried, Why has not the mental worker as much reserve force as the man whose labor is of a manual or physical character? The labor of the latter is far less exhausting than that of the former. Eminent physiologists tell us that three hours' severe, consecutive mental work is as exhausting to the system as ten hours of ordinary physical labor.

A mental worker who labors ten hours, then, has really done three times as much work as the man who has engaged in manual labor during the same period. In other words, mental labor exhausts the body, that is, wears out tissue, three times as fast as physical labor.

It must be apparent, from the foregoing, that a mental worker actually requires a larger quantity of food than an individual whose labor is purely physical. This is quite the opposite of the general opinion of people with reference to this point. It seems to be a very prevalent notion that people whose labor is mostly with their brains, require a very small amount of nourishment, and that they should not eat what is termed hearty food. This is another of the many popular fallacies which has not the slightest foundation in fact. It may be said, however, that a man whose labor is wholly of a mental character, although his actual wants are greater, cannot safely partake of so much food as a man whose labor is of an opposite character. The reasons of this have already been given.

The conclusion of the whole matter is that if a man will treat his stomach properly, he can use his brain to its utmost capacity without injury. When a person has an unusually severe mental task to perform, he should limit the quantity of food taken to the minimum amount sufficient to satisfy hunger. It is better to fall a little short of the amount requisite to maintain the full weight of the body than to exceed it.

We would not be considered as in any way recommending the old "starvation system" which figured quite largely in the writings of some of the earlier reformers. Abstinence is an excellent remedy in some cases; but it may be carried to an extreme, and sometimes has been. It is better, on the whole, to eat a trifle more than is absolutely required to supply the waste of the tissues than to fall short of that amount as a general habit. We imagine, however, that there are very few places, outside of boarding schools, where there is any need of the latter caution.

Brain work is healthy. Severe brain labor is salutary to the intellectual powers. It disciplines and strengthens them. When a man of necessity performs an excessive amount of intellectual labor, a few days of quiet and rest will restore him; but if, instead, he indulges in a midnight "clam bake," with stewed lobster and tripe, he does himself a tenfold greater injury. He has damaged the very fountain of his life forces, and thus entailed a certain amount of deterioration upon every vital organ of his body. Too much wine, too much ham and eggs, too much stuffed turkey, too much general dissipation, and too little muscular exercise are the agencies which kill so many students, and not too much study as we are so often told.

Holiday Digressions.

LAST month we offered a few thoughts respecting "Thanksgiving Dinners." The same will apply to Christmas and New Year's dinners with equal force. We do not intend to recapitulate those remarks, however, but wish to call attention to some further considerations of moment which have a bearing upon the subject of diet.

Every really sincere and thorough-going reformer has often noticed with regret the tendency so frequently manifested by those who call themselves hygienists, to allow themselves to make occasional digressions from what they know to be the proper mode of action as relating to diet. Especially is this tendency manifested on festive occasions in celebration of the holidays. As an illustration, we will suppose a case, the exact counterpart of which has often fallen under our immediate notice, in which the whole family have for some months wholly discarded the use of animal food in any form. As the result, they have experienced an increase of mental and physical vigor, and have enjoyed freedom from sickness. Sufficient time has elapsed to allow the usual changes in the system consequent upon the change of diet to be fully completed, so that there can be no phys-

ical necessity for the recurrence to use of meat. So, also, the use of cakes and rich pastry has been likewise abandoned with manifest benefit to health, and the taste has been in a good measure restored to a normal, healthy condition. But upon the advent of some popular holiday or anniversary, a departure is made from the "better way" which has proved to be so much superior to the unwholesome and pernicious mode of life for which it was substituted. The parents feel as though their duty to their children demanded that they should in some manner recognize the day which has been anticipated so eagerly; and, flattering themselves that "just this once" will do no harm, they make provision for a holiday feast very much like those in which they indulged before becoming enlightened upon the relation of diet to health, and spread before their family a tempting array of "mince pies," "short-cakes," roast beef, and kindred dishes. All indulge their appetites without restraint, regardless of the slight remonstrances which offended stomachs may offer.

Let us consider the results of this course. Are they so harmless as was unwisely anticipated? By no means. Both physical and moral injury of a most serious character has been wrought. We will notice, first, the physical results.

PHYSICAL EFFECTS.

As the result of indulging in the use of the highly seasoned and stimulating viands once discarded, the old tastes are renewed. Old appetites which had been overcome, are revived in all their tyranny. The simple food, unadulterated with irritating condiments is rendered insipid, when contrasted with the pungent, savory compounds which, though tempting and palatable, are well known to be injurious. In short, the whole disagreeable experience which made the escape from the thralldom of appetite so arduous at the first, must be again renewed if the individual would re-instate himself in the way which reason and experience have taught him is the best.

Again, the direct damage to the vital organs of the system is not inconsiderable. The task of digesting unwholesome food imposed upon the stomach is a stupendous one, and impairs its function. And, furthermore, the extraordinary labor of eliminating from the body the irritating foreign matters introduced, results in more or less damage to the organs of excretion.

The notion so commonly entertained that an *occasional* departure from dietetic rectitude cannot result in any material damage, is a wholly mistaken one. The truth in the matter is that these *occasional* departures are often more fatal than habitual transgression. Thus, it is well known that individuals who are habitual opium-eaters often take, several times a day, doses of the drug a single one of which would be surely fatal if given to the same individual after an abstinence of a few weeks. The same principle holds true with reference to tobacco and other poisons, and is readily explained by certain well-established physiological laws. Just so it is in matters of diet. The system, after a time, learns to *tolerate* substances which from their nature are of necessity unusable, and hence deleterious, but which seem to lose their injurious properties solely from this toleration. But when they have been once discarded, they cannot be again renewed without producing the full effect of their injurious qualities.

MORAL EFFECTS.

These are quite as important as the physical effects, though less noticeable. It is most apparent in the children. Aside from the detriment to morals which always results from impairment of physical health, the actual and immediate damage to the conscientiousness of a child is almost irreparable. Let us view the case as it really is. By an infinite amount of patient labor the little ones have been weaned from the use of those articles which their infant tastes had so early learned to love. Hundreds of times have they been told that pepper and spice and rich pies and cakes are bad, and not fit to be eaten, although the assertion has always seemed to them a very hard saying. As many times have they been assured that meat is an article which was never designed by the Creator for the food of man; and they are told of the great liability of animal food to disease, and contamination with poisonous products. They are, also, again and again assured that simple food is not only more healthful, but also more palatable than the hurtful food commonly used, and that they will find that oatmeal pudding is every way superior to beefsteak or roasted turkey.

By the time they have come to partially believe these oft-repeated statements, Christmas, New Year's, or the birthday of one of the little ones approaches. Of course all are jubilant at the thought of "something *good*" to eat on the

expected day; and they are assured by their parents that they shall have "something good." The day arrives and they receive such a dinner as we have already described. Now what must be the conclusion of those children? Their sagacious minds will not fail to arrive at the thorough conviction that their parents do not themselves believe a single word of what they have been teaching them; for have they not plainly declared that pies, cakes, rich sauces, and meats are better than simple food healthfully prepared? The answer is obvious, and the effect certain.

Too much cannot be said respecting the importance of constantly instilling into the minds of children, by example, as well as precept, the great truths of health reform. If a feast is to be prepared, in celebration of any day or event, make it "rich" with wholesome food. Does not the vegetable kingdom supply an abundance of truly wholesome "good" things? Surely no one could wish for more delicate or toothsome articles than the ingenious housewife can provide without the slightest transgression of the laws of hygiene. A few varieties of foreign fruits and nuts, added to our domestic productions, would make a "feast of fat things" which would tempt an epicure.

Power of a Sunbeam.

SCIENTISTS tell us of the immense force exerted by a single beam of solar light and heat, and the wondrous phenomena which attend its action. Without sunlight, all the operations of nature would soon cease. If the "blazing orb" should be suddenly frozen, and thus no longer emit light and heat, instant demolition of everything possessing life and motion would result. The earth and her sister planets would cease their revolutions upon their axes, and would make no further progress in their orbits about the sun. The moon, with all its mysterious crags and gloomy caverns, would come tumbling down upon us like a great meteor, and together we should pitch headlong toward the frozen sun, still the great center of attractive force. Independent of the destruction of mere physical forms and activities, every vegetable would perish, and the minutest animal organism, as well as the most highly developed mammal, would share in the general dissolution.

However this hypothesis may be regarded, we have daily before our eyes thousands of practical illustrations of the marvelous potency of sunlight, and the dire results which follow its absence. In the great cities, a person meets upon the streets hundreds of poor girls with blanched faces and sunken eyes whose countenances plainly tell of weary days spent in dimly lighted factories and workshops, and unrefreshing sleep in damp, infectious tenement houses.

But the most striking illustration of the baneful influence of deficient sunlight is found in the deep valleys of Switzerland, Northern Italy, and some portions of Scotland. Travelers tell us that in the latter locality, scrofula, improperly called a disease, is so abundant as to be almost universal; but it only exists in those who dwell in the deep valleys, where the sunshine is almost wholly shut away by the towering peaks on either side. The inhabitants of the open plains and neighboring mountain sides are among the most vigorous and well developed people in the world, and have won for the Scotch their enviable reputation for physical endurance.

In the still deeper valleys of Switzerland, from which the light and heat of the sun are almost entirely excluded, only reaching their damp depths during a few hours of the day, the sad effects of deprivation of the solar rays are still more painfully apparent. As an individual enters one of these cavernous localities, according to the testimony of travelers, he is at once struck with the dwarfish appearance of the people whom he meets. He sees none of those stalwart, finely formed specimens of humanity which meet him in other parts. Instead, he finds an almost incredible proportion of cripples. Every variety of deformity due to lack of development, meets his gaze. Among the women, he finds goitre astonishingly frequent, indeed, it is said to be a rare thing to find a woman who is wholly free from some enlargement of the neck. A medical gentleman who has traveled very extensively among the valleys of Switzerland, stated to us that this disease was so common among the ladies of certain sections that it had come to be regarded as a mark of beauty, rather than a deformity, a lady not being considered well formed and fully developed unless she had a huge prominence upon the front of the neck from enlargement of the thyroid glands. Many cases may be seen in which this enlargement has become so great that it is pendulous, and requires to be sup-

ported by a strap passed around the neck, making a most hideous deformity.

A most significant statement with regard to the last-mentioned disease is that it is found to disappear as the traveler ascends the sides of the mountains, being wholly unknown among the hardy inhabitants of the higher parts, who have always an abundance of sunlight. This fact having been observed, some years since, by sagacious physicians, a hospital has been erected upon an elevated site, and it is found that those who are removed from the valleys below to this more sunny locality are speedily relieved of their disease, while no amount of medication will cure them at home. A more convincing evidence of the value of sunshine as a therapeutic means could not be offered.

The color of health is not the pearly white which many ladies so much admire, and often endeavor to obtain at the risk of poisoning their blood and ruining their health with dangerous cosmetics. A healthy hue is that which the sun paints on the plowboy's cheek. Do n't be afraid of being "tanned" or freckled. Health is much more desirable than pallor, with its attendant enervation and indigestion. Do not forget that sunshine is as necessary in winter as in summer; and the little ones need it just as much as the older ones; they cannot thrive without it any better than the flowers, which no one would think of hiding away in a dark corner.

Blood-Drinking.

Most people of refined tastes entertain an innate horror of animal blood as an article of food, and shudder at the thought of black pudding, so favorite a dish with some of our old-country neighbors. Still more repulsive to the individual with delicate instincts have been the descriptions given by travelers of the custom which prevails among some barbarous tribes, of eagerly sipping the warm blood of their victims killed in the chase. Until quite recently, all civilized people have united in pronouncing such barbarity as only consonant with the savage cruelty of the North American Indian, or the gross brutality of the Patagonian. But it has been reserved for the refined civilization of the last decade to produce the most odious spectacle of depraved taste and perverted instinct well imaginable. When we consider the ignorance, degradation, and wild ferocity, of the untamed savage, we can almost pardon his manifest love for the life-blood of his fellow-creatures; but when we observe the same abnormal passion in an individual otherwise refined and cultivated, we cannot restrain a feeling of deep disgust and abhorrence.

Many of our readers may not be aware that for a year or two past the use of blood as a medicinal agent has been frequently recommended by several quite eminent physicians both in this country and Europe. In accordance with the advice of their physicians, a large number of invalids have visited the great slaughtering establishments of our large cities, for the purpose of drinking the warm blood of the slaughtered animals. The Brighton *abbattoir*, which supplies the Boston markets, has been a favorite resort; and, a few months since, an illustrated paper published a full-page drawing of a scene at this establishment, representing an eager company of visitors, of whom some were waiting their turn among the carcasses of dead and dying animals, while others were holding their glasses to catch the crimson current which flowed from the cut throat of some poor struggling brute, and still others, among whom were fastidious gents and delicate young ladies, were quaffing the red fluid with as much nonchalance and evident satisfaction as though it were claret or champagne.

A reporter recently ascertained, by visiting all the slaughtering establishments in New York City, that they were visited each morning by more than two hundred individuals, who are served with warm blood *ad libitum*, free of charge. At first the drinker finds that his natural instincts revolt against a proceeding savoring so strongly of barbarism; but he soon becomes as much attached to his bloody potation as any drunkard to his dram. It is reported that the practice is still more extensive in Paris than in New York.

As we have repeatedly shown in this journal, blood contains the broken-down tissues of the system, the *debris*, and excrementitious matters. As these are all poisons which will produce disease and death in the system, it would very naturally be expected that blood would exhibit some medicinal property. As anticipated, it is a stimulant to those who partake of it, and thus they are deceived into thinking that it is beneficial. Some time since, we heard a professor of materia medica prescribe for a patient the daily use of warm beef's blood as a remedy for a disease known as leucothemia, in which there is a deficiency of red blood corpuscles.

The man continued the practice for many months, drinking a tumbler full of blood fresh from the heart of a slaughtered ox every morning. But his disease was not improved in the slightest degree; for the microscope showed the same deficiency of red blood corpuscles as before. Still, the man was advised to continue the practice indefinitely.

A little common-sense reasoning ought to prevent any one from supposing that any good could be expected from such a proceeding in the case mentioned. The deficiency of red blood corpuscles in the system is evidently due to the inability of the proper organs to manufacture them. What benefit, then, could be expected from introducing the blood corpuscles of the ox into the stomach, where they would be dissolved by the gastric juice? Even if they were not dissolved, of what benefit could they be in the blood, since they are manifestly different from those of the human blood, being only one-fourth as large?

How great is the perversion of mind which will lead people to reject such potent and wholesome means of regaining health as simple food, sunshine, and fresh air, for measures which are not only nauseating and disgusting, but wholly inefficient.

"Lacing" and Choking.

We are glad to see that the war against corsets and tight lacing is still being waged with unabating energy by all truly enlightened friends of humanity, especially of the feminine branch of the human family. That compression of the waist is a most pernicious practice has so long been conceded by every one at all familiar with the anatomy and physiology of the human form, that we do not need to argue the question in this connection, although there still remain a few professedly candid and scientific medical gentlemen who from false notions of what constitutes grace and beauty attempt to defend this devitalizing practice by claiming that some of the evils which have been attributed to it are wholly physiological and natural. It is claimed by some of this class of reasoners that the corset is one of the benefits of civilization.

We cannot believe that the article named has been at all defamed, or that the serious results of its use have been in the least exaggerated; but we are convinced that there is a practice which to some extent still prevails among the sterner sex, which is equally fatal in its tendencies. The tight cravats and neckties often worn by men of distinction and high official position, as well as those of lower rank, have been the sources of more sudden and premature deaths than overwork, either physical or mental. The *rationale* of the matter is very simple indeed. In the neck are situated the large blood vessels which convey blood to the brain and return it thence to the heart. The veins are more superficial than the arteries, and can be very easily felt at the sides of the neck. Lying so near the surface, they are very easily compressed; and hence the least constriction impedes the progress of the blood and so becomes a source of obstruction. As the immediate result of this, the poisoned venous blood is crowded back upon the brain, or rather prevented from leaving, while the force of the heart continues to impel arterial blood into that organ, thus subjecting it to an enormous pressure, and preventing it from performing its functions efficiently, if no more serious injury is done. But when this condition is continued, the congestion becomes chronic; a degeneration of the brain substance occurs, and the individual finds himself incapacitated for his accustomed mental labor.

But the results are often still more serious than this; for acute disease, speedily ending in death, may be induced. Many a congressman has literally hung himself by his cravat, unwittingly enduring the slow agonies of gradual strangulation. A tight cravat has more than once been the cause of the rupture of a blood vessel in the brain, and consequent sudden death of a spirited public speaker, while in the midst of an eloquent address.

The ladies have ample grounds for very just and pertinent retort when reproved for squeezing their vitals with corsets, by men who are themselves in imminent danger of asphyxiation by reason of their indulgence in an equally foolish practice. The golden rule for clothing the body should be to so adjust the apparel as to allow absolute freedom of movement in every muscle and limb. Confinement and restraint always result in disease, degeneration, and deformity.

Dr. Kitchener says: "Drunkenness is deplorably destructive; but her demure sister, Gluttony, destroys a hundred for her one."—*Sel.*

GENERAL ARTICLES.

A FRIEND IN DISTRESS.

Oh! if there's a pleasure on earth that's more pure,
Or more blest than another, say, is it not this—
To lighten the sorrows that others endure?
To hold out a hand to "A Friend in Distress?"
'Tis a pleasure that selfishness never can know,
A joy that no language, or pen can express.
Ah! who can forget, that has once felt the glow,
That the heart gives while helping "A Friend in Distress"?

Since each has his trials and troubles to bear,
While as pilgrims we journey along the same road,
When we meet with a brother with more than his share,
'Tis "humanity" bids us to "lighten his load."
The richest to-day may to-morrow be poor,
If we've little, how many there are who have less;
Oh! when should the heart, then, the hand or the door,
Be closed to the claims of "A Friend in Distress"?

—*Sel.*

Physical Culture.

(Concluded.)

THE success of the English people—their victories on the field, in the mart, and in the study—has been largely owing to physical training. John Bull is a large feeder, but he is a hard worker too; he loves the open air, and keeps his mind and body vigorous by constant exercise. The effect of this upon the efficiency of men is strikingly seen in the achievements of the British army and navy, whose soldiers and sailors are surpassed in toughness and powers of endurance by no others in the world. That the splendid empires which England has founded in every quarter of the globe have had their origin largely in the football contests at Eton, the boat-races on the Thames, and the cricket-matches on her downs and heaths, who can doubt? The race so widely dominant—"whose morning drum-beat, following the sun, and keeping company with the hours, circles the earth with one continual, unbroken strain of the martial airs of England"—is dominant because its institutions cultivate self-reliance, and its breeding develops endurance, courage, and pluck. There are some croakers who talk much of England's decline, and predict that she will prove an easy prey whenever any of the continental vultures choose to swoop down upon her. But there is little danger of this while "the silver-coasted isle" is defended by the stalwart men she yet produces. In allusion to the fears of some Englishmen on this subject, a London paper some years ago indulged in the following well-founded boast: "If any of the home-keeping denizens of London are alarmed by the extraordinary naval preparations which Louis Napoleon is said to be making, we would advise them to go down and take a look at the Imperial yacht which is now lying at Deptford. As a vessel, she is in every respect a match for our royal yacht, the Victoria and Albert. But look at her sailors. They have been strolling about our streets for some days past, exciting wonder wherever they have gone. What pretty little fellows they are! What dandy shirts they wear! what natty enamelled hats! How they remind us of ballet girls, dressed out for a hornpipe in a nautical pantomime. Pretty, truly; but their slender knees are not made to cling to a giddy maintop in a gale. Their delicate fingers are not designed to grasp a rough, tarred rope, and hold on, like grim death, when the fate of the ship and its crew rests upon the strength, the daring, and the rugged skill, of one man. There they trip along, a batch of French 'able seamen,' looking, at the best, like the apprentices of an English warship. The big, burly, hard-fisted British tar, who comes lumbering down the street, looks as if he could eat one of them with ease. They are like a litter of Italian greyhounds by the side of that huge English mastiff. Our rivals, then, whoever they may be, may build as many iron-cased ships as they please. They cannot build sailors like ours. In that respect nature and our insular position will always give us the advantage, if we only exercise the most ordinary vigilance in keeping the material of our fleet up to the requirements and exigencies of the time."

It is true, there have been men who, despite of frail and miserable health, have done immortal things. Great and heroic were the achievements of Paul, "in bodily presence weak"; of the blind Milton; of Pascal, a confirmed invalid at eighteen; of Johnson, bravely carrying through life the weight of a diseased and tortured body; of Nelson, little and lame; of Channing, with his frail clayey tabernacle; of the pale Lawrence, weighing from day to day the morsels of bread which alone his dyspeptic stomach could bear. It is true that Julius Cæsar was troubled with epilepsy, and never planned a great battle without going into fits; that the great Suwarrow stood but five feet one in his boots; that Pope was a hunchback and an invalid; and that Aristotle was a pigmy in body, though a giant in intellect. But these are brilliant exceptions, which only prove the rule. The general fact still remains that it is the man of tough and enduring fiber, of elastic nerve, of comprehensive digestion, who does the great work of life. It is Scott, with his manly form; it is Brougham, with his superhuman powers of physical endurance. It is Franklin, at the age of seventy, camping out, on his way to arouse the Canadas, as our hardiest boys of twenty now camp out in the Adirondacks. It is Napoleon, sleeping four

hours, and in the saddle twenty. Rarely does the world behold such a spectacle as that presented in 1693 at Neerwinden in the Netherlands, when, among the one hundred and twenty thousand soldiers who were marshalled under the banners of all Europe, the two feeblest in body were the hunchbacked dwarf who urged on the fiery onset of France and the asthmatic skeleton who covered the slow retreat of England.

Even the greatest poets have been those who, like Burns, have combined athletic bodies with souls of Æolian tones, who were blessed with good digestion as well as brains. The Greek poet, Æschylus, fought nobly for his country at Salamis; and the trumpet that woke his countrymen to battle that morning still rings in his verse. Chaucer was a sturdy bard, as ready to fight as to write; and, when some Londoners had accused him of untruth, "prepared his body for Mars his doing, if any contrairied his saws." There is no calling in which men do not need that sturdy vigor, that bodily strength and agility, without which all mental culture is but a preparation for disappointment and mortification. But, in the learned professions, a good constitution is doubly indispensable. There is nothing else which so taxes, tries, and exhausts the life-force as mental effort. Instead of being pale, delicate, feeble, and sickly, the thinker, whether in the law-office, the pulpit, the editorial room, the counting-room, or the hall of legislation, needs to be stalwart and hardy. He should have tougher thews, and stronger sinews, and a more vigorous pulse than the man who holds the plough or shoves the foreplane. It has been said, with not a little truth, that a small body has comparatively small chances of success; "people will yield that to mere physical largeness which they will refuse to, or at least dispute with, littleness of body and self-distrust." No matter how true the rifle or the aim, a light ball will not carry far; heavy men, like heavy bullets, do the most execution, and win the battle at long range. See Palmerston at fourscore still handling the helm of empire with the firm grasp of thirty! Look at Lord Brougham! That the king never dies, and that Brougham never sleeps, used to be the two leading features of English constitutional doctrine. One would think from his toughness, when almost ninety, that he was a son of old McDonald of Keppoch, the Scotch chieftain of whom it is told that, camping out one night with a portion of his clan, he went and kicked the snow from under his son's head—which the youth had piled together so as to form a sort of pillow—declaring that "the young rascal, by his degenerate effeminacy, would bring disgrace on the clan." The life of Brougham was a perpetual series of mental feats and triumphs over the frail *physique* of humanity. It is told that he once worked six days on a stretch, one hundred and forty-four hours, without sleep; then ran down from London into the country, slept from Saturday night till Monday morning, and returned and buckled to his work again, as fresh and elastic as ever. Is it not an immense advantage to have such a working constitution as this?—to be able, if a professional man, to endure for a whole week a perpetual strain on your brain, and, amid confinement and close air, with heaps of confused papers, law books, and books of reference to get through, to go on daily and nightly extracting therefrom liquid and transparent results, and find yourself, when you rise from your task, as elastic as a rubber ball? Is not a lawyer doubly sure of success who, after a fortnight's laborious attention to a suit, can rise up to address a jury with all his faculties as vigorous and eager for the contest as on the first day of the term, while his wilted and exhausted opponent has hardly more vitality than a bag of sand?

On the other hand, of what avail are brilliant talents and a splendid education to a young man just entering manhood, who has a feeble constitution? It is Ulysses' bow in the hands of the suitors. He brings into the arena of life, to meet its fierce contests, to bear its hard shocks, to persevere in its long-continued enterprises, and to subdue its impetuous oppositions, a shriveled, puny body, limbs trembling with weakness and palsied with pain. His feeble system is borne down to the bed of sickness even by the operations of his own overcultivated mind. The sword has worn through the scabbard. He hears the trumpet sound, and the busy hum of preparation—his soul is "up in arms and eager for the fray"—but he cannot arise and equip himself for the battle. Opportunities of usefulness and of winning an honorable reputation crowd thick upon him; but he feels a prostrating weakness, which, like an invisible enemy, creeps through his veins, and drinks the life-blood from his heart; and he languishes in pain and wretchedness, like Ivanhoe in the castle of Front de Bœuf, unable to perform a solitary act in the fray on whose results hang all his most cherished hopes.

Horace Mann, in a letter of advice to a law-student, justly remarks that a spendthrift of health is one of the most reprehensible of spendthrifts. "I am certain," continues he, "I could have performed twice the labor, both better and with greater ease to myself, had I known as much of the laws of health and life at twenty-one as I do now. In college I was taught all about the motions of the planets, as carefully as though they would have been in danger of getting off the track if I had not known how to trace their orbits; but about my own organization, and the conditions indispensable to the healthful functions of my own body, I was left in profound ignorance. Noth-

ing could be more preposterous. I ought to have begun at home, and taken the stars when it should come their turn. The consequence was, I broke down at the beginning of my second college year, and have never had a well day since. Whatever labor I have since been able to do, I have done it all on credit instead of capital—a most ruinous way, either in regard to health or money. For the last twenty-five years, so far as it regards health, I have been put, from day to day, on my good behavior; and during the whole of this period, as a Hibernian would say, if I had lived as other folks do for a month, I should have died in a fortnight."

Let, then, the man who is stripping for the race of life account no time or money as wasted that contributes in any way to his physical health—that gives tone to the stomach, or development to the muscles. The life of the present day is lived so often at fever-heat, is so swift and restless, that the mental wear and tear is enormous. Never before were men devoured by so insatiable an ambition, or scourged by so merciless an activity, as in this latter half of the nineteenth century. It is the pace that kills. We need, therefore, all the vigor, all the "healthy animalism," that can be drawn from sport or play, to strengthen us for the struggle. It is true, the professional or business man needs health rather than strength. He need not boast the brawn of the gladiator. He need not be a Heenan or a Sparticus; he need not lift a thousand pounds, nor walk a hundred miles in twenty-four hours. It is a sound constitution that most men want to do their work—in short, that condition of body and that amount of vital power, which shall enable them to pursue their callings with the greatest amount of comfort to themselves and usefulness to others. It is true also that physical ability is required more in some callings than in others. But in all it is indispensable to leadership, and he who lacks it, though he may live a useful and reputable life—may even become a first-rate second-rate man—must not think to command.—*Mathews.*

Cigars in the Pulpit.

THE papers contain an account of remarks in Rev. Mr. Spurgeon's pulpit, London, on smoking. Rev Mr. Pentecost of Boston, in speaking of deliverance from sin, gave a thrilling account of his experience in renouncing tobacco. He "took his cigar-box before the Lord for help," and, receiving the help he asked, was enabled to break away from the galling yoke. Strange to say, Mr. Spurgeon, whose smoking propensities are pretty well known, instantly arose, and said he "liked a good cigar, and intended to smoke one before going to bed that night." He said he should "smoke to the glory of God;" but if any one could show him in the Bible the command, "Thou shalt not smoke," he would keep it. We presume Mr. Spurgeon reads such passages as "He that is filthy, let him be filthy still," and thus imagines he finds a sanction for his filthy and disgusting habit. It is perhaps fortunate for him that Paul used the word "meat" instead of "cigar" when he said he would give it up if it caused offense. Perhaps he comforts himself as the old colored lady did when she said she "did not expect to take her breath to Heaven." He may preach a doctrine of self-denial, of purity, and of denying the lusts of the flesh, but he certainly has an original and singular idea of the "glory of God" when he proclaims it amid a cloud of cigar-smoke and from a brain under the influence of such a narcotic poison as tobacco.—*Temperance Advocate.*

Hygienic Gleanings.

"VEGETABLE VERSUS ANIMAL FOOD."

A BRIEF article from the *Westminster Review*, of England, under this head, has just appeared in the *Inter-Ocean*, of Chicago. It is an interesting omen to see standard journals on each side of the main publishing such sentiments. Here is the article, though the facts may not be new to the reader:—

"The arguments adduced by our authors to prove the superiority of vegetable diet in the production of muscular strength are based, of course, on observation and experience. Referring to the statistics collected by means of a series of experiments instituted and conducted some years since by Dr. Forbes, of Edinburgh, we find that a number of English, Scotch, and Irish laborers, of the age of twenty-five, being submitted to trial in relation to average hight, weight, and strength, the superiority in all three qualifications was adjudged to the Irishmen, the Scotchmen occupying the next place, and the Englishmen coming last in the category. It was then ascertained that the latter had been accustomed to a mixed diet of flesh and bread, the Scotchmen principally to oat-meal porridge, and the Irishmen to an exclusively potato diet. Sir Francis Head informs us that immense loads are carried by South American miners, who feed entirely on grain and pulse. Lord Heathfield, who defended the fortress of Gibraltar with consummate skill and persevering courage, was well known for his hardy dietetic habits. He neither ate animal food nor drank wine; his constant diet being bread and vegetables. 'The Laplanders,' says Dr. Lambe, 'are of a dwarfish stature. It may be thought that this is the effect of their polar cold. But we find interspersed among them, and inhabiting the

same black latitudes, numerous families of industrious Finns, who cultivate the earth, and live on such meager produce as it affords. The Laplanders subsist on animal oil and flesh, and as a result are stunted and diminutive alike in body and intelligence. The Greeks of old days are associated in our minds with all that the world holds best of valor and of strength. These splendid heroes—the defenders of Thermopylæ, the champions of Salamis and Marathon—were from infancy nourished on the plainest vegetable fare. The athletes who took part in the muscular games of Greece were also trained entirely on grain and vegetable food. At the Gymnasia, where this training was undergone, the regimen was very severe. The only aliments allowed were dried figs, nuts, cheese, and a coarse bread. Later on, when the reign of luxury had corrupted these simple habits, a portion of flesh was introduced into the bill of fare permitted to the athletes. But it was soon found that the free use of this kind of aliment made them abnormally stupid and senseless. The diet of the soldiers of the Roman Republic, in its palmiest and manliest days, was almost exclusively vegetarian."

THE "STRASBURG PIE."

The N. Y. *Tribune*, a few weeks since, printed a description of this delectable dish, and here it is :—

"The 'Strasburg Pie' is a well known and highly esteemed delicacy. Its chief ingredient is the livers of geese, which by a course of unusual feeding are enlarged to an immense size. The mode of feeding the geese is peculiar. Lean geese are purchased in the market and removed to a dimly lighted cellar, where they are tied down, and tied securely upon their backs upon shelves so that only the head and neck is free to move. In this position, girls thrust down the throats of the geese every two hours three or four balls of a thick paste made of boiled corn, chestnuts, and buckwheat meal. By and by the poor geese arrive at the moment when nature no longer resists this treatment and death is at hand. This is the critical time. The moment of natural death must not be anticipated more than twenty-four hours, or the profits of the business are unnecessarily reduced. When the superintendent, in his hourly inspection, finds the moment has arrived for the final sacrifice of the victim, the goose is removed to the block, beheaded, ripped open, the liver extracted, and the carcass, now worthless, emaciated by disease and reduced to a skeleton, goes to the soup-house to make 'soup-stock.' If the liver weighs three pounds, a grand success has been achieved. It is then stuck over with truffles for a week, and laid upon a marble slab until it has absorbed all the aroma possible, when it is cooked in pots between layers of minced veal and bacon, the energies of four white-capped Frenchmen being devoted to the perfection of this process. After five hours' cooking, it is packed in pots or cans for sale to the pie makers. Recently an officer of the Society for the Prevention of Cruelty to Animals made an attempt to stop the business, but the pie men worsted him, and he had to flee lest he should suffer the fate of a 'Socialist.'"

ALCOHOL IN THE ARCTIC OCEAN.

An entertaining volume is "Seasons with the Sea-Horses; or, Sporting Adventures in the North Seas," by James Lamont, F. G. S. From it is taken a brief paragraph on the *uselessness* of stimulants in the high latitudes. This English sportsman says :—

"The Spitzbergen walrus hunters live a terribly hard and dangerous life, and I observe that they have all a restless, weary look about the eyes—a look as if contracted by being perpetually in the presence of danger. They are a wild, rough, reckless lot of fellows; bold, hardy, and enduring of cold, hunger and fatigue; active and energetic while at sea, and nearly always drunk while at home. So many bad accidents have been caused by their having brandy on board, that of late the owners have supplied them with tea and coffee instead, and it is found that men work quite as well, and STAND THE CLIMATE QUITE AS WELL UPON THEM AS UPON SPIRITS."

This exactly agrees with the testimony of an old sea-captain, a neighbor, who has made fourteen voyages to the Polar Sea, and wintered one season near Greenland.

BRICK TEA.

The *Eclectic Magazine* gives a liberal slice from the Travels of Thos. W. Atkinson, F. P. G. S., in Amoor, India, and China. While among the tribes of the mountain Kirghis, he was regaled with brick tea. He describes this beverage thus :—

"This brick tea is a solid mass, above eleven inches long, six inches wide, and one and a half inches thick, and is made from the last gatherings and refuse of the tea crop. Instead of the leaves and stalks being dried, they are made wet, mixed with bullock's blood, and pressed into a mold, when the mass becomes more solid than a brick. When it is used, a man takes an ax and chops off some small pieces; these are bruised between two stones, rubbed in the hands, and then thrown into the cauldron. A bowl of Smitanka, some clotted cream is added, with a little salt and a handful of millet meal. These ingredients are boiled, and served up hot. 'It is rather tea-soup,' as Mr. A. remarks, 'than tea.'"

HINDOO INFANT SMOKERS.

The Rev. Edward Jewitt Robinson, in his "Daughters of India," gives some of the cus-

toms of Hindoo matrons in regard to their offspring. He says:—

"She never corrects her child, but humors it to the utmost. Its little mouth is now at the breast, now at her *cheroot* (a kind of cigar). This is literally true. All India smokes—men, women, and children. Hindoo mothers nurse their children until they are three years old, or more. We have often seen one of those infants lolling on the side of its nursing mother, and taking alternately with its mother's milk, a whiff or two from the cigar, which she holds in her mouth. The habit then formed, is retained through life."

A NONDESCRIPT DISH.

De la Reynière, the celebrated French gastronomer, has the credit of inventing the following dish, which has been dignified with a place in the New American Encyclopedia:—

"Stuff a fine large olive with capers and *jolets d'anchois;* then place the olive inside the body of a fig-picker, from which you have cut the head and feet; then enclose the fig-picker in the body of a plump ortolan, neatly dressed; then insert the ortolan in the body of a fat lark, from which you dissect the principal bones; then cover the lark with a thin slice of lard, and put it into the body of a thrush, which, having in like manner dissected, you stuff inside a fat and juicy quail (a wild one preferred); which you should cover with a vine leaf and insert in the body of a lap-wing; which is boned and trussed, and inserted in the body of a golden plover; which in its turn is covered with lard and inclosed in a young woodcock; having rolled this in grated bread crumbs, place it in the body of a neatly prepared teal; which put in the body of a guinea hen; which secrete in the body of a young wild duck; which encage in the body of a chicken; which conceal inside of a young and carefully selected pheasant; which entomb in the body of a young and fat goose (wild, of course); which insert in the body of a very fine hen turkey; which finally inclose in the body of an *outarde* (a species of wild turkey) or a young swan, and fill the interstices with Lucca chestnuts, forced meat, and a savory stuffing.

"Having thus prepared the roast, put it into a pot sufficiently large, with onions, cloves, carrots, chopped ham, celery, a bouquet of parsley and thyme, mignonnette, several slices of salt pork well salted, pepper, salt, fine spices, coriander seeds, and one or two sprigs of garlics. Then seal this pot hermetically with a strip of paste or clay, place it on a slow fire where the heat will penetrate it gradually, and let it remain twenty-four hours. Then uncover it, skim it if necessary, and serve on a hot dish. The juices of so many different fowls amalgamated thoroughly by this slow process; and their different principles becoming so identified with each other, by this close connection, give to this unequaled dish a most wonderful flavor, in which are combined the quintessence of the poultry yard, the marsh, the plain, and the forest."

The foregoing is fully up to old Baron Rothschild's dish of sauer kraut, which had to be stewed in sweet oil, brandy and aromatics as many days and nights, without cessation, as Jonah was in the whale's belly. Such a culinary melange may do very well for the epicure who "makes a god of his appetite," but human beings who hope to go to Heaven will neither taste, touch, nor smell, such an indigestible ollapodrida. G. W. AMADON.

Battle Creek, Mich.

The True Course for Employes

THE true question for an employe is not how much he can get forthwith, but how he can keep steadily employed. The men who get rich are not usually the strikers who refuse to work for particular wages. Strikers are apt to waste in idleness, in the course of a year or two, time wherein they could have earned more than the amount for which they strike. Those who increase their income are the men who accustom themselves to regular industry, who keep steadily at work for such compensation as they can get, live within their means, save money, and invest it. Thus they keep up a good income and increase it from year to year; quite as fast, in most cases, as they become able to manage it with judgment. The employe who takes the most pains to find out exactly what service his employer wants, to render that service carefully and generously, and who, having mastered the details of his work, does not leave it to go into some other employment where a larger but uncertain compensation is promised, is the man who is morally certain to rise. When hard times come, or when his employer is unfortunate and is compelled to retrench, he is the man who will not be dismissed, and who will not lose time in seeking work, when he would, of necessity, be eating up his savings till he finds it. When vacancies occur in the establishment, he is the one who will be intrusted with the most valuable work, which commands the highest pay. When his employer wants a partner, he is the man likely to be chosen. When others are discharged for incompetency, he will be retained; for his knowledge of the work and his known reliability make for him a good position in which he is sure to be able to do well. True, this way of life is not always easy; it requires self-control, conscience, and steadfastness; but it is the way to self-respect, honorable standing, legitimate wealth, and happiness.—*Mercantile Journal.*

The Dangers of Pork-Eating Exposed.

NUMBER ONE.

DURING the past two years there has been a great deal of interest manifested in the subject of pork-eating as connected with health. So numerous have been the cases of sudden death occurring, the immediate cause of which was unmistakably traceable to the eating of pork, that the most observing people are beginning to entertain many very serious doubts as to the propriety of using as an article of diet that which is so liable to produce such direful consequences.

While the attention of the public is thus very wisely turned toward this subject in one of its most obviously dangerous aspects, we would invite a more careful investigation of the matter in some of its less apparent, but, possibly, quite as momentous bearings, as well as a proper consideration of the more threatening evils.

THE GENERAL USE OF PORK.

In this country, pork-raising is one of the great industries, and one of the most prolific sources of wealth. And since the supply is wholly regulated by the demand, it may be taken as a proper index of the prodigious quantities of swine's flesh which are daily required to satisfy the gustatory demands of the American people. No other kind of animal food is so largely used as is pork in its various forms of preparation. The Yankee always makes his Sunday breakfast of pork and beans, besides making the same article a prominent constituent of at least two meals each day during the rest of the week. Pork and hominy is almost the sole aliment of the Texan farmer; while in other Western States pork and potatoes constitute the most substantial portion of the farmer's bill of fare. The accompanying dish may be hominy, beans, or potatoes; but the main reliance is pork in each case.

In the case of no other animal is so large a portion of the dead carcass utilized as food. Pork seems to be considered such a delicacy that not a particle should be wasted. The fat and lean portions are eaten fresh, or carefully preserved by salting or smoking, or both. The tail is roasted, the snout, ears, and feet, are pickled and eaten as souse; the intestines and lungs are eaten as tripe or made into sausages; black pudding is made of the blood; the liver, spleen, and kidneys, are also prized; the pancreas and other glands are considered great delicacies; while even the skin is made into jelly. In fact, nothing is left of the beast but his bristles, which the shoemaker claims. Surely, it must be quite an important matter, and one well deserving attention, if it can be shown that an animal which is thus literally devoured, and that in such immense quantities, is not only unfit for food, but one of the prime causes of many loathsome and painful maladies. Let us examine the hog a little, and see what can be determined respecting his real nature, and his office in the economy of nature, if he has any.

A LIVE HOG EXAMINED.

Look at that object in a filthy mud hole by the roadside. At first you distinguish nothing but a pile of black, slimy mud. The dirty mass moves! You think of a reptile, a turtle, some uncouth monster reveling in his Stygian filth. A grunt! The mystery is solved. The sound betrays a hog. You hasten by, avert your face, and sicken with disgust. Stop, friend, admire your savory ham, your souse, your tripe, your toothsome sausage, in its native element. A dainty beast, is n't he?

Gaze over into that sty, our pork-eating friend. Have you done so before? and would you prefer to be excused? Quite likely; but we will show you a dozen things you did not observe before. See that contented brute quietly reposing in the augmented filth of his own ordure! He seems to feel quite at home, does n't he? Look a little sharper and scrutinize his skin. Is it smooth and healthy? Not exactly so. So obscured is it with tetter, and scurf, and mange, that you almost expect to see the rotten mass drop off, as the grunting creature rubs it against any projecting corner which may furnish him a convenient scratching-place. As you glance around the pen, you observe that all such conveniences have been utilized until they are worn so smooth as to be almost inefficient.

Stir up the beast and make him show his gait. See how he rolls along, a mountain of fat. If he were human he would be advised to chew tobacco for his obesity, and would be expected to drop off any day with heart disease. And so he *will* do, unless the butcher forestalls nature by a day or two. Indeed, only a few days ago a stout neighbor of his was quietly taking his breakfast from his trough, and grunting his infinite satisfaction, when, without a moment's warning, or a single premonitory symptom, his swinish heart ceased to beat, and he instantly expired without finishing his meal, much to the disappointment of the butcher who was anticipating the pleasure of quietly executing him a few hours later and serving him up to his pork-loving patrons. Suppose his death had been delayed a few hours, as is the case with the majority of hogs? or rather, suppose the butcher had got the start of nature a *little*, as he generally contrives to do?

But we have not half examined our hog yet. If you can possibly prevail upon yourself to sacrifice your taste in the cause of science, pork-loving friend, just clamber over into the reeking sty and take a nearer view of the animal that is destined to delight the palates of some of your

friends, perhaps your own. Make him straighten out his fore leg. Now observe closely. Do you see an open sore or issue a few inches above his foot, on the inner side? and do you say it is a mere accidental abrasion? Find the same on the other leg; it is a wise and wonderful provision of nature. But what are they? Grasp the leg high up, and press downward. Now you see, as a mass of corruption pours out. That opening is the outlet of a sewer. Yes, a scrofulous sewer; and hence the offensive, scrofulous matter which discharges from it. Should you fill a syringe with mercury or some colored injecting-fluid, and drive the contents into this same opening, you would be able to trace all through the body of the animal little pipes communicating with it.

What must be the condition of the body of an animal so foul as to require a regular system of drainage to convey away its teeming filth? Sometimes the outlets get closed by the accumulation of external filth. Then the scrofulous, ichorous stream ceases to flow, and the animal quickly sickens and dies unless the owner speedily cleanses the parts, and so opens anew the feculent fountain, and allows the festering poison to escape.

What dainty morsels those same feet and legs make! What a delicate flavor they have, as every epicure asserts! Do you suppose the corruption with which they are saturated has any influence upon their taste and healthfulness?

Perhaps you are thoroughly disgusted now, and would like to leave the scene. Pause a moment. Now let us take a look at the inside of this wonderfully delicious beast!

A DEAD HOG EXAMINED.

Do you imagine that the repulsiveness of this loathsome creature is only on the outside? that within everything is pure and wholesome? Vain delusion. Sickening, disgusting, as is the exterior, it is, in comparison with what it covers, a fair cloak to hide a mass of disease and rottenness which grows more superalatively filthy as we penetrate deeper and deeper beneath the skin.

WHAT IS LARD?

Just under the foul and putrid skin we find a mass of fat from two to six inches in thickness, covering a large portion of the body. Now what is this? Lard, says one, animal oil; an excellent thing for consumptives; a very necessary kind of food in cold weather. Lard, animal oil, very truly; and, we will add, as synonyms, disease, scrofula, torpid liver, erysipelas!

Where did all that fat come from? or how happened it to be heaped up around that poor hog so prodigiously? Surely, it is not natural; for fat is only deposited in large quantities for the purpose of keeping the body warm in winter. This fat is much more than is necessary for such a purpose, and is much greater in amount than ever exists upon the animal in a state of nature. It is evidently the result of disease. So gross have been the habits of the animal, so great has been the foulness of its body, that its excretory organs—its liver, lungs, kidneys, skin, and intestines, have been entirely unable to carry away all the impurities which the animal has been all its life accumulating. And even the extensive system of sewerage, with its constant stream, which we have already described, was insufficient to the task of purging so vile a body of the scrofula which abounded in every organ, and saturated every tissue. Consequently, this great flood of disease, which made the blood a black, turbid current, was crowded out of the veins and arteries into the tissues, and there accumulated as fat? Delectable morsel, a slice of fat pork, is n't it? Concentrated, consolidated, scrofula, filth?

Then the fatter a hog, the more diseased he is? Certainly. A few months ago, there were on exhibition at the great cattle show in England a couple of hogs which had been stuffed with oil-cake until they were the greatest monsters of obesity ever exhibited. Of course, they took the first premium; and if a premium had been awarded for those animals capable of producing the most disease, it is quite probable that they would have headed the list still.

Lard, then, obtained from the flesh of the hog by heating, is nothing more than *extract of disease!* the *essence of putridity* and *scrofula!* Who that knows its character will dare to defile himself with this "broth of abominable things"?

DISGUSTING DEVELOPMENTS.

Now let us take a little deeper glance, prepared to find disease and corruption more abundant the deeper we go. Observe the glands which lie about the neck. Instead of being of their ordinary size, and composed of ordinary gland structure, we find them enlarged masses of scrofulous disease. Perhaps tuberculous degeneration has already taken place. If so, the soft, cheesy, infectious mass is ready to sow broadcast the seeds of consumption and premature death. For, according to some excellent medical authorities, tuberculous disease is capable of communication by means of tubercles. If the animal is of sufficient age, the further process of ulceration will have occurred.

Now take a deeper look still, and examine the lungs of this much-prized animal. If he is more than a few months old, you will be certain to find large numbers of scrofulous tubercles if you make a careful examination. If he is much more than a year of age, you will more than likely as not find a portion of the lung completely consolidated. Yet all of this

filthy, diseased mass is cooked as a delicious morsel, and served up to satisfy fastidious tastes. If the animal had escaped the butcher's knife a few years, he would have died of tuberculous consumption.

But what kind of a liver would you expect such an animal to have? Is not excessive fatness one of the surest evidences of a diseased and inactive liver? Infallible. Then a fat hog must have a dreadfully diseased bile manufactory. Make a cut into its substance. In ninety-five cases out of a hundred you will find it filled with abscesses. In a larger percentage still will be found the same scrofulous deposits which seem to infest every organ, every tissue, and every structure of the animal. Yet these same rotten, diseased, scrofulous livers are eaten and relished by thousands of people who cannot express their contempt for the Frenchman who eats a horse, or Chinaman who dines upon fricasseed puppy.

Now just glance at the remaining contents of the abdomen. In every part you notice evidences, unmistakable, of scrofula, fatty degeneration, and tuberculous accumulations.

WHERE SCROFULA COMES FROM.

The word *scrofula* is derived from the Latin *scrofa*, which means, a sow. The ancient Romans evidently believed that scrofula originated with the hog, and hence they attached the name of the beast to the disease. Saying that a man has scrofula, then, is equivalent to saying that he has the hog disease. After we have seen that the hog is the very embodiment of scrofula, is filled with it, literally overflowing with it, in fact, since he requires sewers to carry it off sufficiently to preserve his own life—after viewing this, can any one doubt the accuracy of the conclusion of the Romans who named the disease?

ORIGIN OF THE TAPE-WORM.

We shall not attempt to trace the history of this horrid animal, which frequently attains the length of thirty to fifty feet in the intestines of human beings, only so far as concerns its introduction into the human system.

With this end in view, let us glance again at that ulcerated liver. Upon closer inspection, it will be no uncommon thing if we discover numberless little sacks, or cysts, about the size of a hemp seed. These do not present a very formidable appearance, certainly; but as soon as they are taken into the stomach by the eating of the flesh containing them, the gastric juice dissolves off the membranous sack and liberates a minute animal which had been lurking there for months, perhaps, awaiting this very opportunity. This creature, although very diminutive in size, is furnished with a head and four suckers. With the latter it attaches itself firmly to the side of the stomach, and begins to grow. In a short time it produces an addition to its body which is attached like a joint behind. Soon a duplicate of this is produced, and then another and another, until a body three or four rods in length is sometimes formed.

The poor victim who is forced to entertain this unwelcome guest suffers untold agonies and finally dies if he cannot succeed in dislodging the parasite.

The germs of these dreadful animals are found *not only* in the liver, but in the *other organs* as well. Pork containing them is said to be measly. Sometimes it is discovered; but that such is by no means always the case is evidenced by the fact that tape-worm is every year becoming more and more frequent in this country. It has long been common in Germany.

J. H. K

Shut It Out!

THE sunshine, I mean. Bar it out with unhealthy green blinds; soften it with lace cobwebs of curtains, and, lastly, deaden it entirely with folds of heavy damask. Then you will have (what the good Lord never intended you should have) a grand, gloomy parlor, kept only for state occasions, and never thoroughly opened even then. "The blues" greet me on the threshold; despondency lurks in the cobwebbed corners; hypochondria hides in every fold of the costly curtains.

But it's the fashion, and fashion is queen. So darken the chambers; lower the shades in the dinning-room; sit in the darkness which is to you, literally, "the shadow of death," rather than risk the entrance of a solitary fly by letting in the sunshine.

It was doubtless a great mistake of the Creator to manufacture sunlight. You would have managed things better. Sunshine fades carpets; never mind that, the absence of it fades faces. It is n't a bit aristocratic either; so common, in fact, that the meanest beggar enjoys quite as much of it as you do. The Lord not only "maketh his sun to rise on the evil and on the good," but what is of far more consequence to you—it shineth alike on rich and poor. Now it is n't everybody who can support a chandelier.

So common! There's that independent little Mrs. Gale has n't a curtain in her parlor. To be sure she has lovely ivies running all over her windows, and those superb morning-glories make a perfect picture every morning. But its so dreadfully unfashionable—not a bit of style about it.

And that wonderful sunshine (it's a pity it's so vulgar, is n't it?) bathes everything in the room in golden light; re-gilds the pictures (they're getting a little shabby); brings out the tints on the walls; dives down into that vase of pond-lilies; laughs in the baby's face.

"It does something else too." Yes, I know. It shows all the worn places in the furniture, and a long, deep scratch on the piano, where somebody rocked against it one day. There's a little worn spot in the carpet, where Jamie's heel beat a tattoo; and there are prints of moist little finger-tips on the window-pane. But the dear little woman does n't frown. She says, "I shall miss it all some day."

When I come back to your stately boudoir I shiver as one who enters a tomb. Perhaps my eyes are dazzled, coming out of the sunshine, for your parlor seems bare and dreary. Empty, too, for all your grand furnishings. Marble tables, splendid *tete-a-tetes*, elegant knick knacks of all sorts there are in plenty; but these cannot make up to me for the light and warmth and life I have left. Your Cupids and Clyties are nothing but cold, dead marble; prettier than any statue was the little child I saw on the carpet hugging his "wee yabbit."

But you think differently. You like better your darkened chambers; and you will keep the bright hues of your carpet, though the wild rose tint on your baby's cheek grows paler every day. And by and by you will carry him out through the sunshine, for lack of which the little life wasted, and hide him away forever under the grasses, and then you will wring your hands and talk about "strange dispensations" and "mysterious Providences."—*Sel.*

From Liverpool to London.

LIVERPOOL does not seem at all like an American city. The houses are constructed in a manner to give them a very solid, substantial appearance. The walls are very thick, and they have either very small cornices, or, what is more frequent, none at all. They are generally built of bricks of a dirty clay color, and so present no very pleasing aspect. Yet there is an air of comfort to this city not generally found in large cities. The streets are well paved and generally very clean, and the windows have many flowers. There is a plumper, fresher look to the people in general than to the people of an American city. There are plenty of persons who seem to be on the look-out for an opportunity to answer a question or to render some slight assistance, and they are sure to inform you at the close that they expect something as a compensation. If you employ a porter or cabman for a stipulated price he will not be ashamed to ask you when you settle for a gratuity of a sixpence. This is an annoyance to be found everywhere in England. The waiters at hotels, and restaurants, and on the steamers, and even the men who handle the baggage in depots, all pertain to the family of the horse-leech, and cry, "Give, give."

The carriages of Liverpool are very heavy, and to an American seem to be very clumsy. And this is true of every implement or tool used by the laboring men. The amount of strength required to use them, or the amount of work to be accomplished by them in a given time, seems not to have been considered either by the maker or the purchaser. They only thought to have something that would neither break nor wear out, and in this respect they have succeeded. One kind of carriage called a "Hansom," after the name of the inventor, is very much like an American chaise only that the driver is perched behind it at a sufficient hight to hold the reins over the top. This gives the whole inside and front to the passenger, but it presents a ludicrous appearance, for when there is no one inside it looks as though the whole concern would tip over backward upon the driver were it not for the girt of the harness.

The docks of Liverpool are wonderful structures. The western coast of England is deficient in good harbors. But the American trade demands a great western port. The mouth of the river Mersey constitutes the port of Liverpool. But it is only at high tide that there is sufficient water in the harbor to float large vessels. And, therefore, men have undertaken to remedy the difficulty. It not being practicable to dredge out the harbor, vast docks have been dug by the side of the river, but a few rods from it, and these extend on the Liverpool side some eight miles. They are nearly thirty feet deep, and wide enough for vessels to lie on either side of the docks, while a passage between is left for large vessels to pass and repass. When the tide is in, vessels are taken into the docks, and the gates are shut. There are large sheds on each side of the docks under which the loading and unloading takes place. The commerce of Liverpool is immense, and here men have shown their power to triumph over difficulties that seem to be insurmountable.

The passage from Liverpool to London presents one of the most pleasant views that I have ever seen. The whole country is like a garden. The fields, Sept. 28, are clothed in living green, and so are the trees. The whole country is fenced with hedges, which are neatly trimmed, and are quite green. The carriage roads are carried over or under the railroads so that there is little danger of accidents at crossings. Foot passengers are not allowed to walk on the track. When a hill is in the way, it is tunneled; and so a high rate of speed can be secured with little danger. The cars themselves are cheap things compared with those used in America. They are not entered at the end as in America, but they are divided into compartments containing two seats which extend across the car, so that those on the forward seat face those on the hind seat. Each compartment is entered by a door at the side of the car, and

when the train starts, it is locked. The same car is divided into three kinds of rooms for first, second, and third class passengers. The first class is for the nobility, and costs about twice the price of the third. The second class differs from the third principally in that it has cushioned seats, while the third has simply wooden benches. These answer very well, however, if smokers and rowdies can be kept out. And a shilling placed in the hands of the "guard," as the conductor is called, will generally secure to a party undisturbed possession of a compartment.

It is about two hundred miles from Liverpool to London, and we were about six hours in making this distance. London, on the side at which we entered, begins all at once. That is to say, we did not come to scattered houses which gradually grew more compact; but we came to a solid mass of houses on the very edge of the city. There are some two hundred railroad stations in London. We stopped at the Euston station, and were made glad in that vast throng of strange faces to meet Eld. W. M. Jones and wife, who had come four miles to greet us. J. N. ANDREWS.

Neuchatel, Switzerland, Oct. 21, 1874.

Worth Remembering.

AVOID DAMPERS IN STOVE PIPES.

THESE nuisances are now quite common, and because they "save wood," and thereby save money, they are like to be popular. By shutting off the upward draft they throw back into the room all the poisonous gas generated by the combustion of fuel, and are, therefore, very destructive to health.

It is a subject of common remark that an open fire-place is more healthy than a stove; and it is largely owing to the better circulation of air through the open upward draft. Now it is true that wood might be saved in a fire-place by covering up the top of the chimney! but we should not wish to live in the house. And that is exactly the principle on which wood is saved by means of dampers in stove pipes.

Fire may be speedily checked by shutting off the supply of air in front, and this is the only safe method of checking it in a stove. If ALL the air could be shut off from the fire in front it would "go out" as quickly as if it was immersed in water. Thus it will be seen that the fire may be well controlled if the stove is tolerably tight in front when closed up. All who do not wish to commit suicide nor to undermine the health of the family will do well to discard stove-pipe dampers.

KINDLING FIRES WITH THE KEROSENE CAN.

This is somewhat extensively practiced, and the number of lives lost thereby is fearful. I have watched this matter for several years, and although the kerosene accidents do not all get into the papers, the number published is greater than the number of lives lost by railroad accidents. When we consider the miles of railroad, and the millions of miles of day and night travel, it may be thought that my statement is extravagant. But I am satisfied that it is not. There was considerable noise in the papers last summer over a railroad accident in Connecticut by which several lives were lost. But the same paper in which I read the account of this disaster recorded five deaths by kerosene! And the cause is silently, constantly operating all over the country. It would be highly proper for every man in whose house the women kindle fires with the oil can, to banish kerosene lamps from the household and let them try tallow candles again. In most cases it would work a reform to the saving of life.

J. H. WAGGONER.

Lecture on a Pressing Subject.

SIR JAMES PAGET recently delivered a lecture at St. Bartholomew's Hospital on a subject which has for some time past been engaging the serious attention of the medical profession. Were doctors all as fearless as Abernethy—and as clever—it is possible that a public protest would by this time have been made against the pernicious fashion which is producing more cases of terrible deformity than any other cause at present in operation. Unhappily, even doctors have found it necessary to submit to the tyranny of fashion, and to wink at a worship as fanatical as that of Juggernaut, or the abominable habit of wearing boots with stilted heels, and "elastic" side springs which constrict the muscles, and press so severely as to arrest circulation. This practice of tight-booting is becoming almost as serious in its results as tight-lacing.

From Sir James Paget's lecture we learn that kid gloves, though worn continually, never cause bunions, since the kid stretches to the hand; but in the manufacture of boots, especially ladies' boots, unyielding canvas is used to line them, so that the leather is prevented from stretching and showing the true shape and size of the foot. The foot enlarges when bearing the weight of the body, and also in the latter part of the day; hence, a boot thus made from a measure taken when the foot is suspended in the air and in the morning, is too small in the evening. Women's feet are usually measured in the air, but men's when they are standing on them. The high heels of ladies' boots, too, will be always causing them to walk down-hill, however level the path may be, thus driving the foot more and more to the front. By wearing short boots, the great toe is brought

sharply in contact with the end; and, as the tarsus and metatarsus will not yield much, and the metatarso-phalangeal joint will, a deflexion of the great toe takes place outward, and sometimes downward. This is the most frequent and worst form. This deflexion of the great toe is the source of great trouble, as bunions occur over the metatarso-phalangeal joint, soft corns under the second, third, and fourth toes, under which it lies, and, worst of all, a total loss of movement in the great toe.

Numerous are the maladies which follow the wearing of distorted, small, ill-fitting boots; such as deformities of the toes, bunions, corns, in-growing nails, painful bursæ, etc. In a perfect female foot, you find great width and fullness of instep, well-marked great toe, long second toe projecting a little beyond the great toe, and a very small little toe. In the male, the great toe is not quite so prominent as the second. The feet of all persons cannot be deformed, nor can corns and bunions be produced in every one. It is doubtless owing to their complete reactive nutrition, the repair that takes place in the night being more than enough for the day's waste. This is not impossible when it is remembered that complete repair occurs after great muscular waste, as in athletes. The troubles then set up in the integument, fasciæ, and tendons of the toes, are rather to be considered as diseases set up by the pressure and friction of boots.

By-the-by, the old classical models show us that the second toe naturally extends a little beyond the great toe; but that perfect type of foot is disappearing under the influence of improper covering. In every case in which the foot is deformed through wearing an ill-fitting boot, affections, such as bunions and corns always appear, and they may occur to persons who have well-made feet. There is no distinct definition between bunions and corns, for the bunion is an enlarged and diseased bursa, and is commonly seated over the metatarso-phalangeal joint of the great toe in cases where the toe is everted by the wearing of boots that are too small for the feet. A bunion may not only be formed in that place, but any part of the foot which is subjected to friction and pressure may be the seat of an abnormally formed bursa. Over it a corn is frequently produced. A bursa may be regarded as a natural structure, developed to ward off pressure and protect the joint beneath, and for that reason it is enlarged. But it soon passes that stage of healthy character, and becomes the seat of morbid changes. These changes are:—

Simple inflammation, which a day's hard work will produce; gouty inflammation; excessive hardness and thickening of the walls of a bursa through repeated attacks of inflammation; and suppuration, which is not infrequent. It is a most painful affection, the pain being felt not only at the seat of the disease, but, in many cases, some distance up the limb, as well. The integuments swell, and frequently there is lymphatic swelling, with enlargement of the glands. If communication between the bursa and the joint occur in young persons, acute inflammation and destruction of the joint will follow.

These are not all, nor even the worst effects of bunions, however, since they lead to utter destruction and amputation of the foot, or to gangrene. Added to these, curvature of the spine may result from mischief to the feet through the deformities of boots. It is a good rule in practice, when a person complains of anything the matter with the legs, to look at the boots; for you may make a diagnosis by looking at them only, since the shape of the boots will tell you how they have been worn—whether the person has walked on the inside, the outside, or never walked fairly on the heels. Persons may complain of rheumatic pains in hips, knees, and ankles, and the sole reason be corns and bunions, or badly fitting boots.

Formerly, the most common place of chafing was at the ball of the foot; but now the most common and important place is over the tendon Achilles. In one case—a young woman—pyæmia and death followed on the chafing over this tendon. The marvel is that some can stand it and do not die.

Chilblains occur where the circulation is most diminished. The chafing — which happens chiefly in ladies—is caused by the elastic sides, and by a badly made boot, having a median seam at its back, so that a rubbing over the tendon Achilles is always occurring. Elastic sides, high heels, and the hard seam, are the evils to be avoided; lace and button boots, with low, broad heels, and seams perfectly smooth inside, or none at all, are to be commended.

Every mother with growing or grown-up daughters should be glad to have the high authority of Sir James Paget for restraining her girls from the present evil fashions.—*Victoria Magazine.*

How Mrs. Swisshelm Was "Cured."

BY RALPH E. HOYT.

An article recently appeared in one of the Chicago daily papers, from the pen of Mrs. Jane G. Swisshelm, on the much-mooted subject of temperance. Coming from a woman of wide reputation as a writer, lecturess and reformer, the article is worthy of special attention. The writer calls herself a temperance advocate, but puts in a plea for alcohol "as a medicine." Admitting that alcohol is one of the greatest curses that ever afflicted mankind, she nevertheless seems to think that it is one of the best of "rem-

edies" in disease, and something which could not be dispensed with. And what is the reason she assigns for the faith that is in her? Simply that she, and certain other persons, when sick, have taken alcoholic "medicine," and recovered. Hear her:—

"Nearly forty years ago, doctors began to order me to take brandy and port-wine; but I had known people begin taking such prescriptions and die drunkards. I was afraid of myself, signed a pledge, and resolved to die rather than risk such remedies, except in bad attacks of ulceration of the throat, when sharp cider, porter, or currant wine, seemed essential to recovery. Only in cases of severe illness or great prostration could any physician induce me to take alcohol in any form; but, in these, I learned something of its efficacy."

The supposed "efficacy" of alcohol as a remedial agent is precisely what ails the majority of would-be temperance reformers, all over the land; and that is the reason they accomplish so little good. Once admit the fallacy that alcohol is efficacious and indispensable as an agent for restoring health, and the most powerful weapon which can be used at all in this contest is placed in the hands of the anti-temperance party. With this weapon alone, they can successfully resist the combined attacks of all the alcoholic medication, "temperance" organizations and individuals in Christendom. And this is what they have been doing ever since the inauguration of the mismanaged temperance reform.

Mrs. Swisshelm also proceeds to relate how she was once the victim of dyspepsia, and how she was finally cured (?) by following the prescription of a Dutch doctor, who told her to eat bread and cheese, and "trink peer" every day. She adds: "His prescription worked like a charm, and in any fit of dyspepsia now, I go back to the hard bread and beer." The admitted fact that the victim of Teutonic stupidity and beer is still troubled with "fits of dyspepsia," shows how thoroughly she was "cured" by the prescription she praises so enthusiastically. "It worked like a charm," did it? Worked how? Not in curing the patient—not at all—but by producing a condition of the digestive organs resulting in continued "fits of dyspepsia" and a demand for—*more beer!* If such a "cure" as that is not sufficient to prove that alcohol is *par excellence*, the remedy for dyspepsia, what would prove it?

Once more, I ask, When will people of intelligence and education, who talk and write ably on other topics, learn to *reason* like rational beings on the alcoholic question?

Chicago, Nov. 20, 1874.

If you feel angry, beware lest you become revengeful.

The Medical Use of Alcohol.

BY JAMES EDMUNDS, M. D.

[The following is a lecture upon the medical use of alcohol which was recently delivered in New York by Dr. James Edmunds, Fellow of the Royal College of Physicians, and of various other learned associations, under the auspices of the National Temperance Society. Dr. Edmunds is a distinguished English physician, and has bestowed careful attention upon the subject of which he treats. Dr. Willard Parker, of New York, remarked in introducing the lecturer, "By physiological inquiries it has been established that alcohol is a poison, and, like arsenic, opium, quinine, and other medicines, should be employed only when scientifically prescribed. It is not a food, nor should it be used as a common beverage. It has been proved, also, that when taken into the system it diminishes the temperature, lessens the strength, and, by about forty per cent, shortens human life." The address is copied from a work entitled, "The Medical Use of Alcohol," published by the National Temperance Society. Although we might easily find a few points for disagreement with the author, we give his lecture without criticism, on account of the many excellent things which it contains. A portion only appears in this number; the balance will be published in our next issue.—Ed.]

I do not know any question upon which physicians ought to feel more deeply than on this question of alcohol. It is one upon which it seems that the very future of our race depends; for, certainly, the amount of disease, insanity, misery, and poverty which grows out of the use of alcoholic beverages is acknowledged on all hands to be so great that the burden of justification necessarily rests upon those who participate in the use of that out of which so much evil grows. I am not here to argue that it is the duty of the physician to take what is called a moral standpoint on this matter. I think the keynote which you have laid down, sir, is exexactly that which well defines the duty of the physician. The relation of a physician to his patient is just that which the advocate's relation is to his client; it is the physician's duty to save or cure his patient "by hook or by crook," and he has nothing to do with moral questions when he is in the pursuit of his profession. But I would also say this: that whatever is morally right cannot be physiologically wrong; and if that be so, I think the converse of the proposition will hold good—that whatever is physiologically right cannot be morally wrong; and it

will then follow that if we can get at the true physiology of this question, and ascertain what it is that alcohol does to the human body, we shall be in a position to know that which moral duty enjoins in reference to this question. If we admit that the burden of justification lies upon those who use that out of which so much evil comes, we may fairly ask ourselves, "For what objects are alcoholic beverages taken?" I would submit that there are three well-defined objects in relation to which we may examine the use of these things. There are many little questions that are mere haze about the central fact in this matter. We hear adulteration talked of very much. I do not know that there could be any adulterant put into alcoholic beverages that would be much worse than the alcohol contained in them. In fact, my impression is that the adulteration of these beverages —almost universally consisting in the substitution of something which is weaker and less potent than the alcohol—is not the cause of any of the evils which are associated with the use of alcoholic liquors. Then, again, when we come to talk of the difference between the various kinds of wines, beers, and spirits, we find that they are all taken for the alcohol which they contain; that there are none of them we should take if their alcohol were abstracted; and, practically, we come down to the simple properties of alcohol as it exists in its various proportions in these varieties of wines, beers, and spirits. Well, if we admit that, it will enable us to concentrate our attention tonight so as to bring this subject within reasonable limits.

We may regard alcohol taken as a food, alcohol taken as a stimulant, and alcohol taken, perhaps, as a narcotic. If we take up these three points, we shall be able to exhaust the subject very readily. Now as to food. Does alcohol act as food? You hear a man saying, "Am I not taking my barley in the shape of a pint of beer as well as in the shape of a two-penny loaf?" And we know that wines are made out of grapes, a very nutritious article; and spirits are made out of malt, malt being a very nutritious substance and a high type of pure food, and so on; hence, I say, there is a very well-defined impression on the public mind that all these things are food, simply because they are made from food. Well, I think if you will look into the matter, you will see that that does not hold good. It does not at all follow. I need not say that it does not follow as a matter of logic that that which is made by the decomposition of sugar should contain all the properties of sugar; and, when you come to look at alcohol and see how different it is from the sugar out of which it is manufactured, you will see at once that it is a totally different substance. There may be some persons here tonight who would be a little at a loss for a definition of a food which would be satisfactory to their own minds, and which would include all foods and exclude none. I would submit a definition. I would say that a food is that which, being innocent in relation to the tissues of the body, is a digestible or absorbable substance, that can be oxidized in the body, and decomposed in such a way as to give up to the body the forces which it contains. That definition brings food in relation to the body into a perfect parallel with fuel in relation to a steam-engine. There is no doubt that that is philosophically correct to the last degree. Now, if that be a sound definition of a food, we can very easily indeed ascertain whether alcohol is a food, and we shall be enabled to judge for ourselves what the value of alcohol as a food is, supposing that it be admitted to be a food. Is alcohol innocent in relation to the tissues of the body? That is, you see, the first part of the definition I have submitted. Well, now, what are the ordinary facts? It is admitted by every one that alcohol is the cause of more than half the insanity which we have. I am not so familiar with the facts on this subject here as I should naturally be at the other side of the Atlantic. I know this: that Lord Shaftesbury, the Chairman of our Commission on Lunacy, in England, has said, in a Parliamentary report on the subject, that six out of ten lunatics in our asylums are made lunatic by the use of alcohol. It is a fact which cannot be disputed, that diseases of the liver, diseases of the lungs, diseases of all the tissues of the body, are induced directly by the use of alcohol, and that as a general rule you may say that where you have alcohol used most largely and most frequently, there these diseases and degenerations in the tissues of the body become the most marked. I could give you very authoritative facts bearing upon this matter from sources which are not open to the imputation of any kind of moral bias, as the utterances of some of our temperance friends may be open to. I will take the Registrar-General's Report for England and Wales for the last ten years, and if we look into that we find these facts: that if you take all the men in the country between the ages of fifteen and fifty-five—that is, all the adult men—you will have a mortality of fifteen out of every thousand each year. Now, that result is drawn from about ten million deaths. It is drawn from persons who are total abstainers in but small proportion. It includes all the working-classes, and the whole, in fact, of the adult population of the United Kingdom. We may take that as a fair rate of mortality, upon which our great corporations and insurance companies make their calculations, which turn out in the mass to be true with wonderful accuracy, although with regard to individuals these statistics will not help us much. If we consider the different classes of people which make up this aggregate, we may

discover very interesting facts. You may take the ordinary agricultural laborer, you may take also the tailors and the working-classes, and you will find their mortality perhaps from thirteen to sixteen per thousand.

You may take, again, those who are engaged in the sale and manufacture of intoxicating liquors—publicans, liquor-sellers, liquor-manufacturers, brewers men, and all persons who are mixed up by their avocations with intoxicating liquors; well, now, what do you think are the facts there? Let us take just one class—the public-house keepers. You will find that thirty per thousand of those die every year where the normal average of other men is fifteen—that is, where one workman dies, two publicans die. Well, now, can we account for that in any way? What should we expect if we looked into these facts? The publican is better clothed than the working-man; he is better housed and better fed, and less exposed to casualty and accident which occur to the men in the laborious, mechanical, and other trades; and therefore we should expect that the publican would live longer than the ordinary working-man. And so he would if it were not for this one fact which comes in; he is mixed up with alcoholic liquors; he is not, as a rule, a drunkard, but he takes that which damages his stomach a good many times a day out of compliment to some friend who asks him to take a drink. This goes on, and that is the result. I put those simple facts before you, figures about which there can be no question whatever, and I ask you to consider simply as to whether you think that any possible explanation can be put upon those facts other than the one I have suggested—that is, where you get alcoholic liquors mixed up with human life, there you get human life deteriorated and shortened. There is another class of statistics to which I wish to call your attention. Several of our great insurance corporations in England have sections which may be joined by total abstainers—those who are total abstainers by a condition of their policy; in all other respects, those insurers are upon precisely similar terms to others—they pay the same rates of premium, they are examined by the same medical officer, they are under the same management, and, in fact, they are "on all fours" perfectly, with the one exception that you have on the one hand moderate drinkers—all the drinkers and all the damaged lives having been eliminated—and on the other hand you have men who, by a condition of their policy, are bound to be total abstainers. I submit that if we can get at the results of the operations of these societies for fifteen or thirty years, those facts would be very suggestive. What are the facts? The facts are that you will get a very much smaller mortality among the total abstainers than you do among the moderate drinkers. We are not here comparing the total abstainer with the drunkard, or the drunkard even with the soaking man; we are comparing the total abstainers with those moderate drinkers whom you would say were apparently uninjured by drink, and yet, when you come to reckon up the death claims with respect to the expected mortality and the provisions made for them, you will find among the total abstainers a large accumulation of bonus to divide among the survivors. I submit to you, ladies and gentleman, those facts as bearing out broadly the proposition which I have submitted before—that these things are a cause of a great deal of the ill health, and disease, and shortening and deterioration of life; and that, therefore, the burden of justification lies upon all those who use these things.

Let us look at the other side of the account. In what way are these things supposed to be beneficial? I have said, in the first place, that they may be used as a food. What is the possible food-value of alcohol? Alcohol is always manufactured from sugar. But people talk about the gifts of Providence. You hear persons, especially if they are fond of port-wine as well as of religious exercitations, talk about the "good creatures of Providence." They think they ought to take these things because they are "good creatures of Providence." Whenever my friends tell me that, I adopt the Socratic method—I ask the question: "What do you mean by a 'good creature of Providence'?" I generally find my friend has difficulty in answering the query: that he is not very ready with a definition. He says, "Oh! you know what I mean." I say, "I don't know what you mean. I want you to give me an idea for the term you have used. What do you mean by 'a good creature of Providence,' or 'a gift of God'?" Well, of course, you know a man will have no answer, because arsenic is a gift of God just as much as a potato, and, in fact, there is no bottom in the argument at all. You cannot discriminate; you cannot say that arsenic is not a gift of God, nor opium, nor strychnine, nor even the rattlesnake, are not the gifts of God. In fact, the argument that these things were gifts of God would lead us nowhere at all. But a curious thing is, these things are not the gifts of God any more than a barrel of powder. It is quite true, if rum grew in bottles on a tree, as milk in a cocoa-nut, that would be no reason why we should drink it if it were not good for us. It is a suggestive fact, too, that rum does not grow in a bottle; that you never find alcohol in the animal, mineral, or vegetable kingdom; that it is always a work of art, never a production of nature. So much for this absurd argument. One is tempted to get angry with our sanctimonious people who say that they take these things because they are gifts of Providence. That is an argument you may call one of the *a priori* arguments, and I think you

will say that we have answered it sufficiently.

Well, now, supposing that spirit were a food, what would be its utmost possible value? Spirit is always made from sugar, as I have said. A pound of sugar-cane, when perfectly fermented and decomposed into alcohol and carbonic acid as it is, will produce fifty-one per cent of alcohol. Just bear that in mind—a pound of cane-sugar will produce fifty-one per cent of alcohol if it be manufactured perfectly, so that no appreciable waste occurs. Now, if you will think for a moment, you will see that, inasmuch as the alcohol is made from sugar, it cannot contain by any possibility more force than was contained in the sugar out of which it was produced. That is an exact proposition, and therefore you will see that if you take a pound of brandy, which contains about fifty-one per cent of alcohol when it has full strength, if all the alcohol in it be food, an innocent and useful food, that brandy cannot contain more food power than would be contained in an equal weight of sugar. The first thing we should want to know would be the price. We are anxious on the other side of the Atlantic, at least those of us whose brains are properly constructed, to get the best we can for our money, and, considering the struggle for existence, we think it is very wise that we should. Well, now, what does a pound of brandy cost? Or what will the equivalent quantity of alcohol cost in relation to a pound of sugar? You will find that you can buy as much food in the way of sugar, or beet, or suet, or oatmeal, or other perfectly innocent, useful, unquestionable food substances, for one cent, as you could in the shape of alcoholic beverages for twelve cents; so that as a question of money value you will see that alcohol is certainly not an economical food. Of course you know that our great brewers and distillers—I do n't know what they do on this side of the Atlantic, but I know they are very dignified personages indeed on our side—get very wealthy. You won't wonder at it when you see what a margin there is upon the manufacture of sugar into alcohol. So much for the economical value of alcohol as a food. You know from the other facts that alcohol is not innocent in relation to the tissues of the body, and therefore, if a food, not a good food. Whether alcohol is decomposed—as fuel is decomposed in the fire-place to work an engine—is a question upon which the medical profession and scientific men have disputed very much. Indeed, I do not know that medical science has yet completely solved the question. I do not know that you will get much more out of scientific men on this question than you will get out of your own unaided senses. And what do they teach you? If a man take sugar as a food, you never see that sugar leaving the body again. It does not go out in perspiration, it does not leave the body again at all, unless under very extraordinary circumstances, and when an inordinate quantity has been taken. But if a man takes a tablespoonful of alcohol, what do you find? You can smell it coming out of every pore of his skin a few minutes afterwards, and long after the nose has ceased to detect it you can demonstrate the alcohol leaving the body in the exhalations which come from the skin and the lungs; you can demonstrate and reproduce alcohol as definitely as you can reproduce in a court of justice arsenic from the body of some person who may have been poisoned with it seven years before. Well, now, I simply submit that to you, as showing on the evidence of your own senses that a large part of the alcohol which is taken into the body leaves the body again as alcohol undecomposed, and therefore cannot have given up those forces which hold its constituent elements together, and which are always given up when a substance serves as fuel in an animal body. So that you see, first, alcohol would be injurious, producing disease, insanity, and shortening life; secondly, it would be expensive—at least ten times as expensive as other innocent food; and thirdly, it is not a valuable food, because it leaves the body undecomposed.

Please Stop my—What?

TIMES are hard, money is scarce, business is dull, retrenchment is a duty—please stop my—whisky? Oh! no; times are not hard enough for that. But here is someting else that costs me a large amount of money every year, which I wish to save. Please stop my—tobacco, cigars, and snuff? No, no, not these; but I must retrench somewhere; please stop my—ribbons, jewels, and trinkets? Not at all; pride must be fostered if times are ever so hard; but I believe I see a way to effect quite a saving in another direction, stop my—tea, coffee, and needless and unhealthy luxuries? No, no, not those, I must think of something else. Ah! I have it now. My paper costs me $1.00 a year; I must save that. Please stop my paper! That will carry me through the panic easily. I believe in retrenchment and economy, especially in brains.—*Sel.*

MOST people need all the strength which a high-toned public opinion can give them to keep them true to their conscience and their God; and that opinion is partly formed by what we do and what we are. Strive earnestly, then, to order your life with a wise simplicity. Be frugal in the shows, and generous in the substances of life. Set the example so greatly needed, of wholesome moderation. Show that you care for character above all else.—*Sel.*

DIETETICS.

Conscientious Stomachs.

SOME reader will smile at the apparent incongruity of the above heading; but no other will so well express the idea we wish to convey, and so we venture to use it. Quite frequently we hear from the lips of those who have been complying with the requirements of hygiene relating to diet for some months, remarks like the following:—

"I believe that health reform is making me a dyspeptic; I am certain my stomach is not half as strong as it used to be. When I lived as people generally do, I could eat anything I pleased, and never know the difference; but now, I cannot vary in the least degree from the hygienic diet without suffering for it. Formerly, I could eat between meals as much as I pleased, and at any time of the night or day. Now, if I even take a small bite at night, I get up in the morning with a headache, and feel ill all day."

The individual is correct in attributing this change in the disposition of his stomach to the effects of hygienic diet; but he should regard it as a matter of rejoicing, rather than as a thing to be regretted. He need entertain no fears of dyspepsia; the change which he notices is the result of the return to health of his digestive organs. The nerves which were once stupefied and blunted by caustic and irritating condiments, have become acute and active. Instead of allowing the stomach to be imposed upon with all manner of disturbing and unwholesome compounds, as formerly, they are now faithful sentinels, and at once protest whenever any violation of the laws which govern its healthy action occurs.

What would be thought of the mental status of a converted thief who should complain that he had made a great mistake in renouncing his nefarious profession, for previously to doing so he never felt any qualms of conscience, even if he picked a pocket or robbed a bank; while now his peace of mind was totally destroyed if he deviated ever so slightly from the requirements of scrupulous honesty? Or what would be considered the sincerity of an individual who claimed to be penitent for past acts of villainy and cruelty, but still continued in the same course of life without remorse?

People who find that their stomachs are become much more sensitive than formerly as the result of a reformatory change in diet should accept the same as an evidence of returning health. All they need to do is to follow implicitly the indications of experience. Of course these suggestions are not intended to apply to that class of dyspeptics who are continually watching their feelings, and anticipating injury from their food. Such persons must act upon principle rather than feeling if they would acquire health.

Milk.

"MILK for babes" is quite appropriate, and a very good diet; but the question which often interests us as hygienists is whether milk is proper food for grown people. Let us consider the question.

1. What does nature suggest? It is a principle too well established to need support by any argument from us, that it is always safe to follow the indications of natural law whenever they are clearly understood; hence, we may very properly expect to find some evidence on the question by examining this aspect of it.

Among the lower animals we find that the young of the mammalia are all nourished by a lacteal secretion derived from the mother during a short period subsequent to their birth. It is also noticeable that during this period of nursing they are unable to obtain support in any other way, and that so soon as the ability to obtain other food is attained, they are deprived of the maternal support, and left to their own resources for securing sustenance. The length of the period of dependence is variable with different animals; but, as a general rule, it extends from birth to the time when the teeth are sufficiently developed to serve the purposes of mastication.

Another fact worthy of note is that the quantity of nutriment supplied by the mother is, naturally, just sufficient for the support of her offspring. It is true that this amount may be greatly exaggerated by the employment of artificial means; but we are now considering only the teaching of nature, unperverted by abnormal habits or conditions.

It should be remarked, furthermore, that, simultaneously with the acquirement of the teeth, and thus of the means of obtaining nutriment independent of the mother, other supplemental changes occur in the digestive apparatus which adapt them for the digestion of the new food to be ingested.

All of these changes are common to the whole class of mammals, of which man is a species. We can scarcely do otherwise, then, than draw the following conclusions respecting the teachings of nature:—

a. Milk is intended by nature only as food for young animals, since its supply is temporary, and ceases when the ability to obtain other nutriment is acquired.

b. Nature does not intend milk as an article of food for adults, for she supplies them with organs of digestion which would be of no use whatever if such were not the case.

c. If the manifest design of nature was never defeated by officious interference, there would

be no superfluity of milk for the use of adults, for it would all be disposed of in the natural way.

Will it not be admitted, then, that from this standpoint, the use of milk as a food or beverage by old and young, indiscriminately, is a violation of one of the laws of animal life? We think it will be by candid persons; but some may claim that everything is perverted and unnatural, in the present state of the world, and that we cannot appeal to any standard of absolute right, either moral or natural, as a criterion for action. Without here stopping to point out the fallacy hidden in this oft-repeated argument, we will attempt to show, before concluding this article, that in this very condition of perversion we may find a still more powerful practical argument against the use of milk.

2. Milk is animal food. As such, it is open to all the objections which may be urged against flesh as an article of diet, with the single exception that its use does not involve the taking of life; at least, directly, although we imagine that many a poor calf has died a martyr to its master's demand for the lacteal supply which nourished it. Like other animal food, milk is exceedingly liable to contamination by disease. Numberless instances have occurred in which the cause of sudden sickness and death was directly traced to the use of milk from diseased cows. Cows are constantly liable to take into their systems, with their food, more or less deleterious matter. Thus, it has quite recently been proved by careful observation that many cases of typhoid fever are caused by using the milk of cows which fed upon grass, the growth of which had been stimulated by the application of sewage. In these cases the cows themselves did not exhibit symptoms of disease. It has also been observed that fevers are many times the result of using the milk of animals which have drank putrid or stagnant water. A microscopic examination of the milk, in these cases, showed that it contained the same poisonous germs which existed in the water. It is only necessary to refer to the familiar influence of such substances as onions, leeks, or garlics, upon the milk, to illustrate the facility with which noxious materials may find their way into the secretion.

A year or two ago, it was announced by some German physicans that tuberculosis, or tubercular consumption could be communicated by the use of milk from cows affected with this disease. It was also shown that the disease is not at all infrequent, especially among cows which are kept confined in stables, as are most of those which furnish milk to our large cities. The experiments by which the conclusions of these gentlemen were arrived at, were quite reliable, and have been sustained by the later investigations of French physicians. The matter is certainly worthy of serious consideration by those who make use of milk.

It not infrequently occurs that milch cows which are apparently healthy, suddenly drop dead without any external cause for death. An examination shows internal changes which must have been the result of serious constitutional disease of long standing. The presence of disease having been unsuspected, the contaminated milk of the cow has been used up to the time of death, and must necessarily have wrought a greater or less amount of injury in the systems of those who have partaken of it. Very recently, there has been an extensive outbreak of disease among the dairy cows which supply milk to New York City and its vicinity. Many accounts of the ravages of the disease have appeared in the city papers. We quote the following paragraph from a recent daily, leaving the reader to his own conclusions respecting the possible influence which the use of such milk as must be furnished by these dairies may exert upon the people who use it:—

"The disease among cattle along Jersey Hights and Hoboken prevails to a greater extent than the owners are willing to admit. A cow belonging to James Giblin of Willow street dropped dead in the field. She was seen eating fifteen minutes before she died. Patrick Mooney and Michael Reynolds of Grand street have lost one each, and fifteen out of twenty-five of Coyle's cows died within a short time. Mr. Charles Stuckler, veterinary surgeon at Hoboken, said the general cause of sickness, which to his knowledge prevailed to a great extent, was the hot and dry weather, and cattle eating dusty grass and drinking impure water. The disease is known as *pleuropneumonia exsudatoria contagiosa*. At its first appearance, the cows are weak and languid; the breathing becomes difficult, causing a rumbling noise; the hair stands erect; a thin, green fluid runs continually from the nose; the appetite ceases, and loss of milk follows; the cows are thirsty, but cannot drink much. On examination after death, one lung is very much swollen, enough so to impede circulation, and part of the stomach is dry and hard".—*N. Y. Sun.*

Tea, Coffee, Alcohol, Tobacco.

ARE they foods? or are they poisons? is the great query with many at the present moment. For several years this question has been discussed with reference to alcohol, and just now the discussion has become more active than for some time past on account of the recent death of Dr. Austie of England. Dr. Austie claimed that he had demonstrated, by careful experimentation, that alcohol was not wholly a foreign substance to the tissues, but that a considerable portion of that taken into the body by users of the article

was utilized by the system. It has been claimed, on the other hand, by scientific experimenters of equal reliability, that alcohol cannot be assimilated, and is wholly cast out of the body as unusable. It is true that the entire quantity of alcohol administered in any given case has never been recovered from the excretions; but this is no evidence that it has been utilized or consumed, it is only evidence of the inability to obtain the whole amount which was introduced into the system of the subject of the experiment. And when we consider that the same result would be obtained if any one of the numerous other poisons were used, the significance of the fact is wholly lost. It is also well known that alcohol is very prone to undergo changes converting it into other substances whenever it is placed in just such circumstances as are supplied it in the animal body; viz., warmth, moisture, and the presence of decomposing animal substance.

The same controversy has been carried on with reference to tobacco, and with even less satisfactory results to the devotees of the weed; for it is only by reasoning from assumed premises that they have been able to produce even a shadow of argument in favor of their idol.

But that which gives to this question its greatest significance is the fact that those who have bestowed the greatest amount of attention upon the subject are unanimous in the conclusion that tea, coffee, alcohol, and tobacco, must all be included in the same category. If one is a poison, all are poisons; tea and coffee as well as alcohol and tobacco. If one is food, all are foods. There can be no escape from this conclusion, for the mode of "action" of these several substances, though varying in detail, is identical in principle.

It is scarcely necessary to add that those who discard tobacco and whisky, denouncing their use in the most unstinted terms, as poisons, vile and deadly, while continuing to indulge in the use of tea, coffee, or chocolate, are assuming a most inconsistent position. They are only exchanging great evils for lesser ones of the same kind. They are, logically, like petty thieves who claim to have reformed because they have renounced highway robbery. Of course we institute no moral comparison; but the logical inconsistency is the same in each case.

We shall very soon publish a series of articles on the subject of tea and coffee, and similar beverages.

Be content to continue poor, while others around you grow rich by fraud and disloyalty; be without place or power while others beg their way upward; bear the pain of disappointed hopes while others gain theirs by flattery: forego the gracious pressure of the hand tor which others cringe and crawl.

Fruit Juices.

Many kinds of succulent fruits furnish such an abundance of delicious fluids that they are profitably employed as sources from which various tempting beverages may be obtained. It is a great misfortune to the human family that these delicious products are so commonly allowed to undergo a certain amount of putrefaction or decomposition, in other words, fermentation, before they are considered fit for use. In this way, hard cider, and the numerous varieties of wine are produced. There can be no reason why the wine manufacturer should be allowed a monopoly in the business, especially as his object is such an unworthy one. Neither is there any substantial reason why hygienists should not enjoy the fruit of the vine in the form of a beverage, and kindred drinks, as well as other people. To be sure, we usually prefer to take the whole fruit together rather than to waste a part of it, especially the most nutritious portion, but no harm can arise from the moderate use of grape juice, apple juice, raspberry juice, or the juice of any other edible fruit, and in many cases of sickness, some such article is often a great comfort to the sufferer.

How to preserve these juices is a question which some of our correspondents wish answered, and perhaps the answer may not be entirely too late even now. In the first place, the fruit must be of good quality, and free from dirt. If apples are used, they should be carefully selected and washed, for no one wishes to drink the essence of crushed worms, etc. Then they should be ground in a clean mill, and immediately put into the press. As soon as the clear juice is obtained, place it in a convenient vessel and scald it thoroughly, skimming away whatever may arise to the surface. Then put into cans while hot, seal them carefully, and place in a cool situation, protecting them from too severe cold. If desirable to do so, the cider may be boiled down to half its bulk, or even thicker consistency. If made from sweet apples, a very fine quality of apple sirup may be made which will be free from any suspicion of aduleration. The many uses to which such an article can be put in hygienic cookery need not be enumerated, for they will readily occur to all.

If grapes or other fruits are used, the same principles apply, although some little difference in methods of obtaining the juice will be necessary. It is best to use sweet grapes, which will require very little or no addition to the pure juice. We need scarcely mention that no fermentation should in any case be allowed to occur.

Those who have ice-houses can keep all kinds of juices sweet the year round without the trouble of canning, and with a little better preservation of their natural flavors.

SEASONABLE HINTS!

Fetid Perspiration.

MANY people are much annoyed by the peculiar, pungent fetor which constantly attaches to them, and which is an equal annoyance to their associates. The common source of this disagreeable odor is the excretion of acrid perspiration in some portion of the body. The axilla and the feet are very common locations of this difficulty; and it is often apparently the case that no amount of washing will remedy the difficulty, and almost every resource is adopted to overcome it. As a certain cure for such cases, cleanse the parts thoroughly with strong soap and water, and after thoroughly drying, bathe with a weak solution of permanganate of potash in warm water. One or two grains to the ounce of water are usually sufficient.

If the difficulty is of such long standing that the integument of the part seems to be sodden and diseased, which is sometimes the case with that between the toes, apply to the part, with a small brush, a solution of five to ten grains of permanganate of potash to the ounce of water. In a few days the diseased portions will separate, and the disease will be cured; but perfect cleanliness must be maintained or it will return. The odor will be destroyed from the first, as the permanganate is a powerful deodorizer.

Do not Let them Suffer.

IN our anxiety to secure our own personal comfort, and to contribute to the happiness and welfare of our friends, we sometimes forget the claims which are justly made by the brute creation for a share of our attention. Every winter we read in the papers of the death of whole flocks of sheep by freezing, and during the winter months we can never take a short ride into the country without seeing many poor, half-frozen animals shivering in some fence corner, or vainly trying to escape from the piercing wind by hovering near the lee-side of a straw stack. The pitiful look of such animals is sometimes painful. If the old doctrine of metempsychosis, taught by Pythagoras so long ago, were really true, we imagine that some farmers would find themselves obliged to tenant some very lowly form after their departure from this life. According to the doctrine referred to, they would have ample opportunity to try it themselves after the same fashion.

We believe it to be the duty of every man who keeps domestic animals to provide for them warm and comfortable quarters, where they will be protected from the fierce blasts and chilling sleet of our winters. It is true that these animals have thick skins, and hairy coats; but it should be remembered that most of them are natives of a warmer clime, and must suffer unless protected by artificial means. We do not hesitate to say that it is really a sin to allow cattle, sheep, and colts to go unhoused during the storms of winter, as is often done. We won't make any appeal in behalf of the hog, for we have not much sympathy for him. We should not care much if his family should become extinct.

A man who is unable to make any provision for the protection of his animals from the inclemency of the weather has no right to possess such animals.

Ventilation of Cellars.

As the time is approaching when cellars will be closed up, so to remain most of the winter, it is a fit time to inquire if the collection of foul air in the cellar may not either be prevented or corrected. A cellar in which are kept vegetables and fruit, especially if it is somewhat damp, not only contains an atmosphere dangerous to inhale, but it imparts it more or less to the rooms above. It is true that the effects are felt more as warm weather approaches, but confined, damp, tainted air is dangerous at all times.

As the worst air in a cellar is usually the heaviest, and therefore remains near the bottom, and as the windows are necessarily small and near the top, and as there can be no opening to admit air at the bottom, it is evident that opening the windows occasionally, as may be done in favorable weather even in winter, will not dispel the foul air which lies below the range of a current through the windows.

I know of but one certain method of purifying the air in a damp cellar, and that is by means of a pipe. This may be as small as desired; two inches in diameter will answer. Let the lower end remain open, and within a few inches of the bottom of the cellar, and connect the upper end to a stove pipe in the ordinary T method. The upward draft, especially when there is fire in the stove, will cause a draft from the bottom of the pipe, and of course cause the air to move at the bottom of the cellar.

Because the air in cellars is usually damp and foul it has been thought by some that cellars under houses are injurious and ought to be abandoned. But I think not. A house with close underpinning, as is usually seen, admits of no circulation, nor of examination, while, with proper care, the air in a cellar may be as pure as that in any part of the house, and admits of renovation at any time. Who will remember this? And who, that has a damp cellar, will act upon the suggestion?

J. H. WAGGONER.

PRESERVE your health—save aches and doctors' bills.

To Correspondents.

SCIATICA.—R. J. M. asks, What is the best treatment for sciatica? I have been troubled with it for four months in the left hip; and lately it at times extends to the ankle. Is worst after riding, and becomes more painful in the evening.

Ans. Sciatica is a nervous affection, and, as is the case with all others of that nature, one of the most important means of cure is the improvement of the general health. To this end, we know of no better measure than hygienic living. Irritating and obstructing articles of food should be especially avoided. One or two general baths should be taken each week, being followed by vigorous friction with the dry hand. Thorough rubbing of the affected part is very beneficial. The pain will often be relieved by hot fomentations applied over the seat of pain. They should not be continued more than a half hour at a time, and should be followed by friction of the part with tepid or cool water to prevent taking cold. Avoid exposure to damp or chilly air without ample protection. Electricity is a most excellent local remedy when properly applied.

EFFECTS OF ANGER.—K. E. inquires what is the cause of dizziness; my girl made me very mad one day, and the next day I felt so weak and giddy when I walked that I thought I should fall down.

Ans. There are many causes of giddiness. In this particular case, the apparent cause was a fit of anger. We could not desire a more fitting opportunity for impressing the imminent danger of death to every person who indulges in violent angry feelings. Many a man has dropped dead in his tracks when choking with rage against a fellow. Many a woman has fallen to the floor lifeless when in the act of striking a child in the heat of passion. It is entirely unsafe to get angry. Paroxysms of rage are as deadly as the cholera. The terrible congestion of the brain induced, often results in the rupture of a blood-vessel, and the patient dies of apoplexy, unless the vessel happen to be a small one, which may have been the case in the person whose question we are answering. The experience should be considered as a warning not to be slighted with impunity.

DISINFECTANTS.—A. R. F., N. Y., asks: Is carbolic acid healthy to use in sick rooms to prevent bad smells?

Ans. Carbolic acid is an excellent disinfectant; but it has a very strong, disagreeable smell, which is very annoying to many patients. Pure air and sunlight are the best of disinfectants. Perfect cleanliness is the best thing of all, for it obviates the necessity for the use of anything to conceal or destroy filth. Dry earth is a capital absorbent, which gives it most valuable properties as a disinfectant and deodorizer. Nothing should ever be left in a sick room which will be apt to give rise to foul odors.

Carbolic acid is not very commendable as a deodorizer. One of the best agents for this purpose is powdered copperas, or a saturated solution of copperas or permanganate of potash, which should be applied liberally to the cause of offense, when practicable. Nothing should ever be burnt in a sick room for the purpose of purifying the air. This should be done by thorough ventilation. House plants in a sick room are excellent purifiers, on account of their ozone-producing qualities. It is also stated that ozone may be generated in a room by suspending in it a few bunches of matches which have been moistened with water. Many of the popular methods of disinfecting sick rooms are the most ridiculous absurdities, the only effect being to conceal the obnoxious odor by producing a worse one, thus doubling the amount of impurity.

CHARCOAL FOR FILTERS.—J. C. D., Mich., wishes to know how to pulverize and wash charcoal for a filter.

Ans. Select the best quality of freshly burned charcoal. If the coal has remained exposed to the air for some time after being burned, it must be heated red hot in a close vessel to render it efficient for filtering purposes. When properly prepared, place it in a bag and crush it by means of wooden rollers or mallets. When it is reduced to a proper fineness, cleanse thoroughly by simply pouring water through the bag until it comes out clear, when the coal is ready for use.

TOMATOES—FILTERS.—A. A. F., Ill., inquires: 1. Are tomatoes healthful food? If not, why? 2. What are the prices of your filters? 3. Are the lowest priced as complete in construction as the higher priced ones?

Ans. 1. Tomatoes are very excellent articles of food. They do not contain calomel, as many people suppose. They have no especial action on the liver or on any other organ any more than apples or other healthful food. Some people claim that they will produce salivation; but having used them very freely for several years with no injurious effects, and having seen them so used by many others, we conclude that this excellent fruit has been falsely accused.

2. See advertisement on the cover for prices.

3. The only difference between the several styles of filters is in dimensions.

OLIVE OIL AS FOOD.—H., Boston, Mass., says: "In a former number of the REFORMER I read your objections to the use of butter. May I ask if a pure, sweet oil of olives, such as is used by the people of Italy for food, would be considered wholesome by you?

Ans. Pure olive oil would certainly be less objectionable than butter, lard, suet, etc., for it would be free from disease. We cannot see, however, wherein it would be in any degree superior

to animal fats in other respects. As will be observed by reference to the article on the subject of butter, recently published, there are several other grounds for objection to the use of fats and oils in a separated state; and hence, we cannot consider olive oil or any other oil or fat as a wholesome article of diet.

FLATULENCE—MUSHROOMS—GREEN TOMATOES.—F. G., Michigan, asks: 1. What is the cause and cure of flatulence? 2. Are mushrooms calculated to be eaten? 3. Are green tomatoes fit to be eaten?

Ans. 1. Flatulence is usually a symptom of dyspepsia. The undigested food passes into the bowels, and undergoing decomposition there, foul gases are developed. Constipation is also a cause of flatulence, as it causes the prolonged retention in the intestinal canal of fecal matters. Overeating is also a most common cause of flatulence. As to cure, all you have to do is to remove the cause. If you are dyspeptic, come to the Institute or send $2.00 for a home prescription. If you are habitually costive, use graham bread; take occasional enemas; and percuss the abdomen with the flat of the hand for five minutes, three times a day. If you overeat, curtail your diet.

2. We cannot say whether mushrooms were intended to be eaten by man or not; we conjecture that they were not thus designed. In fact, it is more than probable that few would care to eat them when prepared without the usual unhealthful concomitants.

3. No. As a general rule, with a few exceptions, nothing is fit to be eaten until it is mature. Green tomatoes are most indigestible articles; and when prepared in the usual manner, they become still more pernicious.

ULCER OF THE STOMACH.—O. R., N. Y., wishes to know what to do for ulcer of the stomach.

Ans. This disease is one upon which drug physicians have exhausted their skill in vain. Indeed, it is often very difficult of cure, sometimes impossible, under any treatment. The hygienic is the only plan which offers any hope of relief. The diet is of the greatest importance in this disease. It must be wholly free from all kinds of irritating condiments, must be very moderate in quantity, and of the most easily digestible character. All solid food taken must be most carefully and thoroughly masticated. It is well to make farinaceous articles the main part of the sustenance. Oatmeal gruel is a very excellent article for such cases. In very severe cases, it is advisable to allow the stomach complete rest for several days, or even weeks, introducing the required nutriment by way of the rectum. In some cases the patient has been supported by this means for several consecutive months.

SALT RHEUM.—J. B. S., Iowa, wishes information concerning the treatment of salt rheum in his little daughter, three years of age. He says he has no faith in medicines. He has been trying by means of packs and baths to get the disease out of her system for two years, but without success.

Ans. Salt rheum is one of the numerous ways in which scrofula makes its appearance. The popular notion of scrofula is that it is a humor in the blood which must be in some way expelled in order to effect a cure. For this purpose, all sorts of so-called anti-scrofulic medicines are resorted to, but notably without success. First, because there is nothing in the blood to be cast out or destroyed; and, second, because the poisons administered have no curative power. Scrofula is merely a condition of general debility, and low vitality, or inability to resist the causes of disease which are in such constant operation about us. Packs and baths do good only as they promote the general health, which is the main feature of proper treatment. Give the child good food, and plenty of exercise in the open air, and you may reasonably hope that she will recover. If the irruption is troublesome, rub sweet oil or cream upon the diseased surface. A linen cloth wet in tepid water and laid upon the part will often allay the irritation almost entirely.

PROUD FLESH.—J. L. inquires: 1. What is the nature of proud flesh? 2. How can it be destroyed?

Ans. Open sores and gaping wounds heal by a process called granulation. Sometimes the granulations are abnormally developed, when they become known as proud flesh. They prevent the proper healing of a wound or sore, and hence should be destroyed.

2. The best method for destroying proud flesh is to touch it with nitrate of silver or some other caustic. Sulphate of copper is often used.

EPILEPTIC FITS.—J. B. F., Illinois, would like to know what to do for epileptic fits in a young man seventeen years of age who has suffered from them eight or nine years.

Ans. The only advice we can give you is to take the lad to some good health institution as soon as possible. His case is urgent, and will not admit of home management.

DIET.—A. B. M., Iowa, asks: Can our systems be as well nourished upon two or three kinds of good food, providing we relish it, and eat a proper amount, as upon a greater variety.

Ans. We think that it is entirely possible for an individual to select two or three articles of food which shall contain all the elements necessary to perfect nutrition, and be able to subsist upon the same for an indefinite length of time; but the selection should be a careful and intelligent one.

To know how to wait is the secret of success.

SCIENTIFIC.

The Sun.

WHAT is its constitution? its condition? its distance? are questions which are still unsettled, although they have been the subjects of centuries of patient inquiry. It is the hope of settling one of these vexing problems, the solar distance, that causes all the astronomers of the globe to look forward with so much interest to the transit of Venus which is to occur upon the 8th of the present month. Although astronomy is a mathematical science, and is classed accordingly among the exact sciences, it seems to be very far from accurate in its deductions. As yet it has been unable to measure the distance to the center of the solar system within two or three million miles. The spectroscope has claimed to reveal something of the atomic constitution of the sun, though its deductions do not seem to be wholly satisfactory.

As to the physical state of our great luminary, we may choose between a variety of theories, none of which can boast of general credence, although each has its distinguished supporters. One would have us believe that the source of all our light and heat is itself a cold, opaque mass, simply enveloped by a shell of phosphorescent clouds, which sometimes become broken, allowing the dark body within to be seen, and thus giving rise to "sun spots."

Another very sagely scouts the idea that light and heat can emanate from such a frigorific source, and would have us believe that the sun is a red-hot solid mass, heated by the burning of immense quantities of carbon and other combustibles.

Still another declares that the central orb is in a fluid state, being comparable to molten lava; that it is undergoing the process of cooling and solidification, and that it may eventually lose all its heat, and freeze up, thus bringing dire catastrophe upon us all, several millions of years hence.

But Dr. Young caps the climax with the assertion that the thing is "all gas." He assures us that the mighty orb of which we hear such grand stories, and which is said to be the ruling power in our great planetary system, is nothing more than a huge bubble. The gas on the inside keeps trying to get out, and that is said to be the cause of such terrific irruptions which so frequently occur, making huge rents in the surface of the solar disc. The bubble does not collapse, however, but keeps forming as fast as it is broken, and so the farce is continued; at least such is the theory of Dr. Young; and he advances in support of his theory, many ingenious arguments.

We do n't propose to form any definite opinion concerning our wondrous luminary until after the approaching "transit," which may possibly make some wonderful developments.

Literary Notices.

THE MEDICAL USE OF ALCOHOL. By Dr. James Edmunds, New York: National Temperance Society.

This work comprises three lectures which were delivered by Dr. Edmunds, a distinguished London physician, on the occasion of his recent visit to this country under the auspices of the National Temperance Society. The lectures are entitled, respectively, The Medical Use of Alcohol; Stimulants for Women and Nursing Mothers; The Dietetic Use of Alcohol. Dr. Edmunds demonstrates most conclusively, by statistics and incontrovertible facts, that the common use of alcohol, not only by the common people but by physicians, is not only unscientific and unnecessary, but productive of a vast amount of injury to the human race.

But we need not comment further upon this excellent work; for we publish in this number a lengthy extract from it, and expect to give our readers several others in future numbers.

TEMPERANCE ALMANAC and Teetotalers' Year Book. New York: National Temperance Society.

A friend remarks that this little work is "full of good things," and we agree with him. It contains many interesting paragraphs for the instruction and amusement of young and old.

EATING FOR STRENGTH. By M. L. Holbrook, M. D. New York: Wood & Holbrook.

The publishers have sent us this work, and we suppose they expect our candid criticism. It is largely composed of recipes for cookery, which are represented to be in accordance with scientific principles. However this may be, and it is at least questionable, we are compelled to say that, according to our experience, and that of hundreds of the readers of the HEALTH REFORMER, a great portion of them cannot be considered as hygienic or wholesome. We should in justice say, however, that many of them are an improvement upon the wretched compounds of the popular cook book.

We think that the author makes a very unjust imputation when he intimates that a system of dietetics which discards salt, butter, cheese, fat, animal food, and condiments, is founded "on conceptions of the brain or fancies of theorizers." In our opinion, there is no system of living the principles of which are so purely the result of inductive reasoning as that known as the hygienic, and of which the REFORMER claims to be an exponent.

THE WELLSPRING, published monthly at Cincinnati, Ohio, is another new magazine which we are glad to notice as it is well worthy of patronage. Its prospectus defines the object of the journal to be an exposure of the various popular errors of the day, whatever may be their character. It seems to be reformatory in character, and we wish for it abundant success.

Items for the Month.

The Reformer for 1875.

ONLY ONE DOLLAR A YEAR AND POSTAGE PAID.

THE new postal law, regulating the postage on periodicals, which will take effect at the beginning of the year 1875, requires that the postage shall be prepaid. By this new law the postage on the HEALTH REFORMER, monthly, will be only about five cents a year.

We observe that some publishers are taking advantage of this change, and are adding to the prices of their periodicals a sum equal to the amount of present rates of postage. Should we do as others are doing in this respect we should put the price of the REFORMER at $1.12 per year, but, instead of robbing our patrons of the benefits of the reduction in rates of postage which the law provides for them, we propose to continue the REFORMER, at its present exceedingly low price, notwithstanding the heavy draft upon this Office in the prepayment of the postage.

We therefore offer the HEALTH REFORMER to the public, one year, postage paid, for the small sum of one dollar a year. And while we do all in our power to encourage the circulation of this journal, we earnestly appeal to all our faithful patrons to be prompt in paying in advance, and liberal in aiding in a much larger list of full-paying subscribers. PUBLISHERS.

Health Tracts.

LAST autumn, J. H. Kellogg, M. D., the present editor of this journal, wrote a series of six Health Tracts, which were then published at this Office in editions of ten thousand each. Sales have been so very rapid that two weeks since second editions of fifteen thousand each were printed. And not less than two thousand copies of the second edition have already been sent out from the Office. The titles of these tracts, as given on the third page of the cover, are, Dyspepsia, Principles of Health Reform, Startling Facts about Tobacco, Twenty-five Reasons for Tobacco-Using briefly Answered, Tea and Coffee, and Pork.

These tracts will be sent by mail, post-paid, at the prices stated. One-half discount will be made when sent by express in quantities of not less than $5.00 worth. In order to receive attention, all orders must be accompanied with the cash.

PUBLISHERS.

☞ Messrs A. M. Johnston & Co., inform us that they cannot furnish oatmeal at present at the prices given in our October number.

Our Health Almanac.

WE have now printed two editions of the Hygienic Family Almanac of 23,750 copies each, making in all 47,500 copies. Not less than 35,000 copies have been shipped from this Office at this early date. Agents and canvassers say they sell quick. December will be the best month for the Almanac, while January may be equal to November. One hundred thousand copies should find their way to as many firesides ahead of those almanacs which druggists are glad to hand out free, because of the gain they realize from the sales of advertised poisons.

THE SANITARIUM,

Which gives directions each month relative to food, clothing, cleanliness of person, premises, &c., is invaluable. It has three pages of recipes for cooking, which make it almost a complete kitchen guide ; and more than a page on bathing, which goes far in giving a system of home treatment. Besides these, the Almanac contains able articles on

THE FOLLOWING SUBJECTS.

What Health Reform Is Not—What Health Reform Is—Thirty Shots at Tobacco-Using—A Live Hog Examined—Why Tea and Coffee Are Unwholesome Beverages—Is It Better ?—The Terrible Trichina—Hygiene of the Hair—Keep Clean.

For several years the publishers of the HEALTH REFORMER and managers of the "Health Reform Institute," have meditated the publication of a series of annual calendars ; but the constant press of more urgent matters has made the enterprise impracticable until the present, so that we now present the first of this long-contemplated series.

For many years the "Family Almanac" has been a favorite and very efficient means through which quacks and charlatans have sought to place before the public deceptive advertisements of their wares and nostrums. Such is in no sense the object of the present publication. Its primary design is to call the attention of the people to a subject the importance of which is hardly susceptible of overestimation.

Address, HEALTH REFORMER,
Battle Creek, Mich.

Fifty Thousand Copies.

FIVE HUNDRED FIRST-CLASS CANVASSERS WANTED!

THE publishers of the HEALTH REFORMER are determined to raise their subscription lists to 50,000. The S. D. A. Tract and Missionary Society decide to add 15,000 at half price. And we offer to first-class canvassers, who will give their time to the work, a cash premium of one-half. For further particulars, send for our circular.

PUBLISHERS.

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