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Physical Decline of American Women.

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(*Concluded.*)

ONE other fruitful source of the many nervous and debilitating causes of woman's present degeneracy cannot be passed by in silence, for it is so wide-spread over the land, so early developed, so insidious in its growth, so utterly incurable, that the disordered mind is less and less able to follow the promptings of its own better judgment, or even the threats and entreaties of friends. It is a delicate matter to broach, yet when it is a subject which is of such vast importance, which is noted as fearfully prevalent in the American community, and to a far greater degree, probably, than among the women of any other country in the world, why should we shirk the subject? why hesitate to say plainly and without quibble that personal abuse lies at the root of much of the feebleness, nervousness, pale, waxen-facedness, and general good-for-nothingness of the entire community? It is, indeed, a convincing proof of the actual chastity of the American females, but its physical results are far worse than those which would proceed from criminal immoralities.

This is one of the greatest evils of our boarding-school educational system, where the advent of one girl thus corrupted will introduce a moral epidemic into this large family of pubescent, hot-bed brought-up girls, worse for the ultimate well-being of this little community than the virulent scourge of scarlatina; for while the latter takes its quota and at once consigns them to an early grave, the former but toys with its victims, destroying the mind and unnerving the body. Foreigners are especially struck with this fact as the cause of much of the physical disease of our young women. They recognize it in the physique, in the sodden, colorless countenance, the lack-luster eye, in the dreamy indolence, the general carriage, the constant demeanor indicative of distrust, mingled boldness and timidity, and a series of anomalous combinations which mark this genus of physical and moral decay.

This is not a matter within the scope of general investigation; truth is not to be expected from its *habitués;* parents are deceived respecting it, believing rather what they wish than what they fear. Even the physician can but suspect, till time develops more fully by hysterias, epilepsies, spinal irritations, and a train of symptoms unmistakable even if the finally extorted confession of the poor victim did not render the matter clear. Marriage does, indeed, often arrest this final catastrophe, and thus apparently shifts the responsibility upon other shoulders, and to the "injudicious effects of early marriages," to the "ills of maternity," are ascribed the results of previous personal abuse.

For statistics and further information on this all-important subject, we must refer the reader to the opinions of physicians who have the charge of our retreats for the insane, lunatic asylums, and the like; to the discriminating physicians of the families of the upper classes—stimulated alike by food, drinks, scenes where ease is predominant, where indolence is the habit, and novel-reading is the occupation—for further particulars on a subject here but barely alluded to.

But now, having treated of venial errors, sins against one's own self, for which self is punished, and for which self may, perhaps, be allowed to stand forgiven, if the suicide is to be forgiven, we must turn to sins of deeper dye; sins which admit of no palliation, sins not only against self, but sins against God, which no plea of ignorance can avail, for they are not the sins of the ignorant, the poor, and the starving, but the sins of the rich, and the lofty, and the educated.

This is a theme from which we would gladly shrink, both from the delicacy of the subject and from conscious inability to treat it as it deserves; to bring before you the most

horrid social enormity of this age, this city, and this world, and to hold it up to you in such a light as to make you all feel it, in its craven cowardice, its consequent bodily, mental, and moral degeneracy, its soul-destroying wickedness. We look with a shudder upon the poor ignorant Hindoo woman, when from the love for her child which agonizes her mother's heart, in the fervor of her religious enthusiasm, sacrifices her beloved offspring at the feet of Juggernaut or in the turbid waves of the sacred Ganges, yet we have not a pang, nor even a word of reprobation, for the human sacrifices of the unborn thousands annually immolated in the city of New York before the blood-worshiped Moloch of fashion. From no excess of religious faith in even a false, idolatrous god are such hecatombs of human beings slain; but our women, from a devotion to dress, and vain pride of outward show, become murderesses of their own children, and do literally in their own bodies become whitened sepulchers, pallid with the diseases consequent upon such unrighteous acts, and sepulchral in thought and tone of voice from the remorse which always follows a guilty action.

Infanticide is the great, glaring, and fearfully prevalent sin of the women of New York, as immorality, drunkenness, gaming, etc., are the prevailing sins of the female portion of the community of other cities and countries of the world. We take the liberty of speaking freely and plainly upon a topic which the pulpit shirks and the community winks at. We shall speak plainly what we know, and strongly what we feel. The moral sense of the community is at a fearful pass. Each individual claims to decide for herself whether or not to have children. But if this right of option is granted, does it permit the destruction of the child? "But," says the apologetic parent, "children are so expensive; the demands of society, the cost for food, clothing, education, is so great that we could not decently live with such a family." Another, with means in abundance, says, "The care of children is such a slavery;" this one is fond of show and company, that one intends to go to Europe, and neither can be "bothered with young ones." These are the excuses for not procreating children, and the right not to do so we will not discuss now; but are these good reasons for *murder?* Is it not arrant laziness, sheer, craven, culpable cowardice, which is at the bottom of this base act? Are you not dastardly shirking your duty, the duty of your life appointed you by the Creator? Have you the right to choose an indolent, selfish life, neglecting the work God has appointed you to perform? Are you the man who encourages his wife to such a villainous procedure? or are you the woman whose love for gewgaws and trinkets prompts to the outrage against the heavenly sanctity of a true woman's nature? Whichever you are, you are a pitiful, God-forsaken wretch, and all true humanity despises you and hoots at you.

You have not even the unjustifiable but possibly excusable desire of the poor girl, the prey of the vile seducer, who bears in her own breast the pitiable evidence of another's crime. You voluntarily commit murder.

"No, not murder," you say, for "there has not been any life in the child." Do not attempt to evade even to man a crime which cannot be hidden from the All-seeing. The poor mother has not herself felt the life of the child perhaps, but that is a quibble only of the laws of man, founded indeed upon the view, now universally recognized as incorrect, that the child's life began when its movements were first strong enough to be perceptible. There is, in fact, no moment after conception when it can be said that the child has not life, and the crime of destroying human life is as heinous and as sure before the period of "quickening" has been attained as afterward. But you still defend your horrible deed by saying: "Well, if there be, as you say, this mere animal life, equivalent, at the most, to simple vitality, there is no mind, no soul destroyed, and, therefore, there is no crime committed." Just so sure as one would destroy and root out of existence all the fowl in the world by destroying all the eggs in existence, so certain is it that you do by your act destroy the animal man in the egg, and the soul which animates it. When is the period that intelligence comes to the infant? Are its feeble first struggles any evidence of its presence? Has it any appreciable quantity at birth? Has it any valuable, useful quantity even when a year old? When, then, is it, that destruction is harmless or comparatively sinless? While awaiting your metaphysical answer, I will tell you when it is sinful. Murder is always sinful, and murder is the willful destruction of a human being at any period of its existence, from its earliest germinal embryo to its final, simple, animal existence in aged decrepitude and complete mental imbecility.

We make these statements thus fully and plainly because of the frequency of this sin, often committed under the erroneous idea that no wrong deed is committed provided that "life has not been felt," by women who would not willingly do such a wrong. The amount of this crime can be testified to by any ob-

serving physician, and the half is probably concealed even from them.

This subject is not foreign to the theme of this paper, for it is not only a moral evil, but a physical wrong. The health of the mother suffers materially from the violence done to her system, and from the shock to her nervous sense. Whether it is effected by powerful drugs, or by mechanical and instrumental interference, the result is deleterious to the animal economy. The organs are often seriously lacerated, punctured, irritated, or inflamed, producing temporary disease which threatens, and not unfrequently destroys, life, and also when apparently cured, leaves the organs cicatrized, contracted, maimed, in distorted shapes and unnatural positions, in a state of sub-acute inflammation or chronic congestion, for all after-years a source of pain and weakness, and a fruitful origin of neuralgias, debilities, and miseries. Be assured this is not exaggerated, for we cannot recall to mind an individual who has been guilty of this crime (for it must be called a crime, under every aspect), who has not suffered for many years afterward in consequence. And when the health is finally restored, the freshness of life has gone, and the vigor of mind and energy of body have forever departed. Languor and listlessness have become a second nature by habit.

Were the secrets committed to the sacred keeping of a physician allowed to be exposed to the world, we could convince you by a flood of witnessing cases which have come under our own observation, and which could be corroborated by thousands of medical men in this city and country, that we have barely broached the subject, and that the facts are not even fully shadowed forth.

An overweening desire for luxury, dress, and fashion; sometimes simple indolence; sometimes even the laudable determination not to produce children who will inherit constitutional diseases, induces many to take various precautionary measures against conception. The laws of nature, and the necessities of our existence implanted by an overruling Providence cannot be contravened without detriment to the system. Local congestions, nervous affections and debilities are the direct and indisputable results of the *coitus imperfecti, tegumenta extaria, ablutiones gelidæ, infusiones astringentes, et cetera*, so commonly employed by the community, who are so ignorant on all these matters, and who are in fact substituting for one imaginary difficulty in prospect, a host of ills that will leave no rest or comfort to be found.

On this subject there is great ignorance, and there are great ills resulting. Inquiry of any gynecologist will convince the most skeptical that the general employment of any means for the prevention of conception is fraught with injury to the female certainly, if not to the other sex also. Exactly how these evils are effected, is not perhaps of easy explanation, for all the physiological laws are not fully known, but of this fact there is no mistake, and reasonably enough, for sexual congress is thus rendered but a species of self-abuse.

We must leave this question thus imperfectly touched upon, for your own reflections. It is one of vast importance to the physical well-being of the American woman, but it cannot be discussed advantageously in a single article. We could not in conscience have omitted so important a cause of the physical decline of the health of our women without alluding to it, and less could scarcely be said. In your reflections take one guide to correct deductions. Start with the firm belief that God's laws cannot be discarded, superseded, or neglected with impunity.

Women can still do something. They have yet a work to perform. Strip off your follies, your profligacies. Live for something better than dress and fashion, and that ease and self-indulgence which, like a coy maiden, when courted most, furthest retires. Accept your earthly mission to elevate man, to lift him above the perishing dross and sickly vanities of this world,—

"Allure to brighter worlds, and *lead the way.*"

If the sins of the past can only be alleviated, in the future they may be prevented. Be a mother to your children; be a companion for your boys and girls. The follies of the young are too often only the manifestation of the sins of the mother, sins of omission, of neglect of the child's thought, which instead of being trained, as the gardener inclines the twig, is allowed to be blown out by every passing breeze. Fill your child's mind full; stuff it to repletion with the good, and there will be no room for the bad to get in. You know how to satisfy the demands of his stomach, yet you do not attempt to cater for his nobler mental and moral nature. Be a companion for your children. Teach them that if weaned from your breast they are not put away from your heart, and from thence let them still draw their spirit as they before found their life's blood! Be a mother!

"My ear is pained,
My soul is sick with every day's report
Of wrong and outrage with which each heart is filled."

A mother! The fashionable woman whom we once met dancing wantonly at a city ball when her only child lay at home sickening

with scarlet fever, is not the type we urge you to copy. She was but an ostrich, which leaves its young on the desert sands. No; be a true mother, instinct with all the holy attributes of maternity.

Ah! if you will but accept the noble office you are called upon to perform, if you will but *occupy* the heart of your husband, if you will but fold your children into your own selves, know their inmost thoughts, be their confident, their life-spring, their guide, "truant husbands," as they are called, sons designated as "only a little wild," will be rare, and the world will be renovated. To these pure joys will the true woman say dress and fashion are preferable?

Like all good actions, these will redound with blessings. In the exercise of these duties, in the cultivation of home joys and affections, the exposures and consequent diseases will not be met with. Life will not be a state of constant invalidism. Will you think of these things?

We need not speak here of the habit of so many women of indiscriminate doctoring, taking of medicines whose virtues are seen only in newspaper advertisements, or indeed in the constant use of any medicines. The evils of over-dosing have been sufficiently dilated upon, but we may be permitted to especially mention the evils arising from the profuse drinking of the waters of various mineral springs. . . . Much local as well as general injury is often the result.

There are many other well-known indulgencies which vitiate the health, which have not even been mentioned; but as most of them are apparent to all, and as we can add nothing new to what others have repeatedly said, we shall leave them without any further allusion.

The redemption of the sex from their alleged degraded condition as dependent upon, and inferior to, man, is one of the great controversial topics of the day. Any opposition must arise from her own slavery to forms and customs and observances, from being tied down by fashion and folly. They should remember

"——— who would be free,
Themselves must strike the blow,"

and not only assert their independence, but vindicate their claim to equality, not with chalk, powder, and balls, or blood-rouge-stained cheeks, but by actual attainments and victories over self-degeneracy. At the bottom of all superiority is physical vigor. An inferior mind, backed by robust health, can accomplish all that it undertakes; but tortured by disease, and restrained by debility, the proudest intellect is futile to obtain results. The height of earthly desire can only be striven for with earnestness, to say nothing of attainment, with the *mens sana in corpore sano*, a healthy mind in a healthy body.—*Knickerbocker Magazine.*

Why Do Hygienists Die?

BY J. S. GALLOWAY, M. D.

THIS question, found on page 179 of the current volume of the REFORMER, is worthy of consideration. Why do hygienists die? Why does anybody die? To make a comprehensive answer it may be said, Because they are mortal. Hygienic sentiments and the practice based upon them carry with them no guaranty of immortality. However carefully we may live, the vitality with which we are endowed must sooner or later be used up, and when used up, we, like others, must cease to live.

But aside from the limitation common to all men, there are many causes of death in operation under which any one may be cut off long before the vitality with which he is endowed is exhausted by ordinary causes.

If all men were free from hereditary disease and feebleness; if all thoroughly understood the laws of life, and, to the best of their ability, obeyed them; if all could control circumstances so that the causes of disease and death could be avoided in every case, then the ability to live to a mature old age would be in their own hands, and they alone would be responsible for every case of disease and of premature death. Even then the weakness of human nature is such that strong temptation would often lead men to err, and risk the penalty of violated law as they are constantly doing now in cases where they do not plead or wish to plead ignorance in justification of their conduct.

In view of these facts, it is painful to hear health reformers say, as they too often do, that it is a mere matter of choice with us whether we shall be sick or well, whether we shall die or live. The truth of such assertions, within certain limits, is not to be denied; but those limits are too narrow for the broad and boastful assertions so often made. Let us consider them briefly.

We hold life and health in our own hands, but,—

1. If hereditary influences over which we have had, and could have, no control have been entailed upon us—it may be through a succession of generations—so that, with the most careful nursing, we can live but a score of years—years of weariness and suffering—

where is the justice of holding us responsible, whether we adopt the hygienic philosophy or not? If, in any case, the results are to be traced to pre-natal influences, the invalid who suffers from disease or premature decay is to be pitied; but he cannot reasonably be blamed for it. The same rule holds good, no doubt, in very many cases where it is impossible to say positively whether such pre-natal causes have or have not been concerned in their production.

How far Dr. Graham's early death, and the almost constant ill-health from which it seemed to result, depended upon hereditary causes, it is perhaps impossible to determine. The seventeenth son of his parents, born in their old age, it is not to be supposed that hereditary influences were greatly in his favor. And his mother's melancholy insanity coming on soon after his birth affords presumptive evidence that his nervous irritability was entailed upon him by the law of hereditary descent. If, with all his study of the laws of life, and his diligence in observing them, he failed to live out his three score and ten years, it is less surprising than that he lived so long as he did! Yet it is quite possible that some error, known or unknown to him, may have had its influence also.

2. Sanitary science is not yet fully developed. Even among those who have studied it for the longest time, and with the greatest care, there is still a lack of knowledge. Too many things are accepted as true which are not true. What we have learned, needs to be trimmed and polished. Many things about which there is doubt, need to be settled. Much that is yet unknown needs investigation and development. What intelligent sanitarian of to-day would be satisfied to stand upon the ground he occupied twenty years ago? Who is willing to be found twenty years hence just where he stands to-day? In some things, no room for progress may be left. In many, what remains to be done is even greater than what has already been done. Persons who are right in most things—intelligently so—may, and often do, get sick, and sometimes die, for want of knowledge in other things.

Leaving hereditary influences, and lack of knowledge, out of the account, the want of ability to control circumstances in many cases exposes us to the causes of disease and death. Very numerous are the cases in which persons, well knowing the consequences likely to follow, expose themselves to the contagion or infection which threatens the life of friends who need their care. Exposure and fatigue are often unavoidable. In such circumstances, the law of necessity is recognized and obeyed as a matter of conscience without regard to the probable or the inevitable results. From any one of these three classes, influences causing sickness and death may come even to the most careful and the best informed. They may or may not understand why it is so. Suffering, as most hygienists are, from the results of bad habits of living in early life, and able to live only in consequence of the change which has become a necessity to them, many suppose that hygienic living, so called, is responsible for these conditions. A little more thought, with a careful inquiry into the history of such cases, would show that the new regimen should be credited with what is left, instead of charged with what is lost. It is a rare thing to find one in our ranks who has not joined us from necessity. People who are well rarely become health reformers. People who are sick generally exhaust all other resources before coming to us for aid in the restoration of health. Some recover, and ever after continue to have good health. Some improve, but either from a limited stock of vitality at the outset, or from its exhaustion before trying the new method, fail to become strong and vigorous. These are frequently pointed out as samples of the fruits of health reform. They might with more propriety be held up as the fruits of the generally accepted modes of living and of drug taking, rescued by health reform.

It is a question whether in a hundred or a thousand of this class, living in intelligent conformity to natural laws, the average length of life is not greater than in an equal number of cases chosen from the community at large, and never having been the victims of disease as they have been. If examples of early and premature death occur among them, they are not to be set down as legitimate consequences of the system, but as the results of want of knowledge of, or want of conformity to, its teachings.

Health reform, in its proper sense, is but an intelligent recognition of, and a conscientious obedience to, the laws of nature, which is but another name for the laws of God. These laws are perfect. None can go beyond them. All fall short in many things. Suffering and death never result from obedience to, but always from a violation of, these laws. Though there may be notable exceptions, those who are most careful to obey them enjoy the greatest immunity from their penalty. The apparent exceptions are deceptive. Disobedience unobserved incurs the penalty, and obedience is held responsible for it. If the adoption of the hygienic philosophy implied a perfect and thorough understanding

of it, and an infallible conformity to its teachings, its disciples might be held, to a far greater extent, responsible for what they suffer. But it implies no such thing. Christianity demands of its adherents that they shall grow in grace. So we are to grow in knowledge of, and obedience to, all of God's laws, physical as well as moral. The two are inseparable. The glutton, the drunkard, and the debauchee are morally as well as physically impure. They cannot be pure in heart while defiled in body. So, all who desire to be spiritually pure must be physically pure also. "With long life will I satisfy him." "The righteousness of the upright shall deliver them." "The wicked shall fall by his own wickedness."

May Good Digestion Wait on Appetite?

[THE following article we condense from the *Sanitarian* for May.—ED.]

May good digestion wait on appetite?

What a text we have here for a well-expanded essay on human happiness! We may surely say that in spite of all his lofty aspirations, and that something within him which assuredly partakes of the godlike or the divine, man comes back to the mere level of humanity, nay, or even down to his very animalism, when the subject comes home to him of good or bad appetite, good or bad digestion. And these are matters that will come home to us with or without our consent. While one would often be, by desire, soaring to the clouds, scanning the starry heavens, or taking measurements in the regions of illimitable space, the stomach will put in untimely and importunate claims, and insist upon their precedence. Not the theologian, the philosopher, the poet, nay, nor the very physiologist himself, can any more successfully command his appetite than King Canute could command the sea. Man must be more or less of a "digesting machine." Carlyle suggests that he ought to be something more, and so, indeed, he ought; but he will be none the less subject to the digestive functions, which must be done, and which ought to be well done.

May good digestion wait on appetite? Broussais attributed all human maladies to disease of the stomach. He was wrong, but a morbid stomach granted, we have a prime factor in the production of no small part of all the ills that flesh is heir to. And not flesh only, but the subtler, loftier part of man is humbled, aggrieved, and distressed by perversions of digestion. Your dyspeptic, though a man of good natural endowments, is usually morbid, moping, irritable, sometimes insane—insane, to wit, in mind and body. This is not a discovery of to-day or yesterday, but an observed fact of all time. Who is melancholy? Your *atrabilious* man, to be sure; and what is melancholy? Why, according to the ancients, *black bile*, which makes a man see everything around him in somber colors only. There is nothing in life *couleur de rose* for him, and more's the pity. Melancholy comes, then, to be pretty nearly a literal fact, and not merely a figurative expression in man's existence. Bile, no matter about the color, is a very good thing *in its place*, but in digestive disorders, when out of place, modern observers show how nearly right was the ancient theory. "There can be no doubt," says Dr. Carpenter, philosopher and physiologist, "that an extreme depression of the intellectual power, as well as of the emotional state, is often to be attributed to a depravation of the blood, a slight accumulation of bile being very prone to occasion this state in some individuals, and an entire change being effected by a mild dose of mercurial preparations, which, by eliminating the bile, restores the circulating fluid to its proper purity." But for the elimination, the man, your friend and neighbor it may be, becomes the victim of melancholy, subjective and objective. He may let you know, to your surprise, that you no longer enjoy his good opinion, but if you be sound yourself, you will not oppose your *choler* to his *bile*. He wants dietetics, not dialectics. It is said that of a number of British soldiers captured once by an Eastern prince, many had contracted liver disease in India. Their captor kept them for some weeks on a scant vegetable diet, just bordering on starvation. This intended punishment proved remedial, for by the time the men were rescued, all the hepatic cases were cured.

The sick need the physician; but what of the well? "Prevention is better than cure," and but few men have a right to be sick. Are they sick, then, from choice? Not always, yet oftentimes. They prefer causation to prevention. It may seem strange that man, with all his apparent wisdom, should impair his best faculties of mind and body by such folly, yet it is even so. "I tell you honestly," said blunt old Abernethy, "what is the cause of the complicated madness of the human race. It is their gormandizing and stuffing, and stimulating the digestive organs to excess, thereby producing nervous disorder and irritation."

But as Mr. Shandy could not convince his wife by a conclusive argument against her,

drawn from Socrates, inasmuch as she cared nothing, as she said, for the opinions of a man dead a hundred years ago, so our modern sagacity cares little for the opinions of a man dead before the meridian of the 19th century. In these days eating and drinking is a philosophy. Eat, drink, and be merry is revived in theory, and in practice. Your physician prescribes it, too, and you like the prescription. A fig for Abernethy, and figs for the old saint who lived one hundred and twenty years on them, with water from the brook, *ad libitum*. We know better now. We will have all the luxuries of the season three times a day and between times. We will have wine, whisky, brandy, and cigars to help the digestion. And when we go to spend the evening, which lasts until to-morrow morning "in the small hours," we will take some oysters, broiled, and terrapins and canvas-backs, and, as the room is hot, some ices, and as they chill us, some champagne to make the blood circulate. We do not feel very well, and the doctor says we must be nourished, and we think so, too. Thus we eat and drink, and we must be merry, to judge from the hum of voices, the wreathed smiles, the sallies of wit and laughter, or, maybe, "what is wanting in wit is made up in laughter."

But the next day—or the same day, in fact—our gentleman, just so merry, finds that his head is muddled; he is disinclined, if not disqualified, for the exigencies of business. And Madame or Miss suffers with a disabling headache. Her temper is easily ruffled, and her appearance is anything but improved. Her glass shows no beautiful blending of the lily and the rose, but sallowness, or hollyhock hues, with the disfiguring blotches of incipient skin disease. No wonder the lady is no longer in high spirits. The merriment, alas! of the preceding night, was as evanescent as the sparkle and fumes of the wine.

For one, two, or three days thereafter, penalties attach to the excess. Our gay friends are out of sorts, as they say—atrabilious, mayhap—with an unhappy consciousness of function impaired in organs which work so harmoniously when not unwisely disturbed, as to give no token of their work or even of their existence.

It should not be a cause of lament when penalty immediately follows excess. Your tough, hard-headed people, who appear to indulge in all excesses with impunity, are in more danger in the end than the more sensitive and impressible, who are more readily brought to their bearings. The former are lost before they discover danger; the latter are warned in time, and by heeding the warnings they are often saved. We are all prone to self-indulgence, which is usually punished in some form in the here (we presume not now to look to the dread and mystic realms of the hereafter), and like lazy school boys, we behave better in the presence of the dominie's uplifted rod, than in fear of the remote contingent disgrace of being "plucked" at the next examination.

One excess brings one punishment, habitual excess, habitual punishment, sooner or later, and the sooner the better, when time is left for reform. No man can impose upon his stomach with impunity. It is not far from the exact physiological truth that the health of the whole body is tempered in the laboratory of the stomach.

Most Americans have some personal experience with dyspepsia, yet not many know how far-reaching it is. Everybody knows something of the heart-burn, the preverted appetite, the bad taste, the sour stomach, and other familiar morbid phenomena which appear *in situ;* but an infinitude of other sufferings, moral and physical, are in the train, where cause and effect are not so readily appreciable. That dull, heavy pain in the chest, that admonishes one of pulmonary consumption; that disturbance in the rhythm of the heart, that keeps another in perpetual dread of sudden death; that giddiness, dizziness, vertigo (*vertigo a stomacho læso*, or *vertige stomacale*, as Trousseau called it), that indicates to another impending apoplexy, are often (not always) but the progeny in the second or third degree of an ancient, if not honorable, gastropathy. In other words, they are but remote symptoms of dyspepsia.

Physiology teaches that the human stomach is capable of digesting a proper and adequate proportion of food, and no more. Nature makes no provision for digesting more than her proper wants require. She has a fixed order and system, in which she is always consistent. She is something like conscience, giving warning against doing wrong. When one eats with due deliberation, as he ought, not bolting food *more Americano*, she gives him plain indications when he has enough. If he heed them, he will have a good stomach, which is a blessing second only to a good conscience; but if he heed them not, he may be sure of penalties commensurate with the extent of his fault. Good digestion is not going to wait on appetite when enough for two meals is put at a sitting into one stomach. There will be some digestion and some fermentation, and then that indefinable distress that the French call *mal-aise*, which is near akin to English disease.

But a man must eat heartily to be healthy and strong. True, but *overeating* will take away health and strength. The old philosopher Aristippus, said to a man boastful of much reading, "It is not those who eat the most who are hale and hearty, but those who best digest." And this practical fact is known by trainers of race-horses and athletes, though hardly understood in "good society."

Eating beyond one's real wants is gluttony —a vice equally reprobated by the physician, the moralist, and the divine. Morals and medicine are here in close alliance. All medical authors protest against it, and so do the inspired writers. Eat not to fullness, drink not to elevation, says an American sage. A full stomach in the literal sense is a dead weight, and a distended stomach has often been the cause of sudden death.

Custom Is King.

IT is admitted that there are other rulers in their particular provinces, such as iron, cotton, whisky, and tobacco; but is there anything which rules so extensively over the human race as custom? We inherit certain customs which have come down to us from former generations, and they are retained as things unavoidable, the propriety of which is not to be questioned at all.

The voice of reason, as well as that of revelation, is, Choose life, that ye may live. But by many the admonition is not heeded. All desire the continuance of the life that now is; but instead of making a vigorous and persevering effort to choose such diet and habits as are in accordance with the laws of our being, though perhaps looking wistfully for a moment in that direction, still the rule of custom is regarded as inevitable.

To a health reformer, one who has broken away from the iron sway of custom, it seems astonishing that communities living in a region where grains and fruits may be produced and enjoyed in great variety and abundance, should not supply themselves with an abundance of these, the most natural, as well as the most healthful, food of man, and still make pork, the most filthy and disease-producing of animal food, the leading article of diet, the one thing without which no repast can be complete. Their attention being called to the impropriety of their manner of supplying their tables, they may admit it for a moment, and faintly wish it were otherwise; but custom is established; it rules supreme; and no manly, decided resolve is made to break away from its tyranny. Life, health, and enjoyment are not sufficient motives to prompt an attempt to escape the iron rule of custom. Its sway is yielded to an inevitable fate.

But there are exceptions. There are those who, when they see there is a better way, will choose it; who, when admonished to choose life, will regard it, and break the yoke of bondage entailed upon them by their fathers, and riveted upon their necks by custom. And it is a matter of rejoicing that some will choose the better way. Life and health are worth a determined and persistent effort to break the power of custom, and false tastes and relishes, too, and to form such tastes and habits as are conducive to these inestimable blessings. It will pay. A lengthening of life, freedom from sickness and pain, and besides these, a greater relish and enjoyment of the good things Heaven has provided, will amply repay the effort to make the change. Healthful diet is more truly enjoyed, besides the reward of life and exemption from pain.

R. F. COTTRELL.

Food as Related to Health.

ALL living beings use food in order to supply the waste constantly occasioned by disintegration; and, generally speaking, the higher the grade of animal life, the finer and better the character of the foods required to sustain that life. As man is the highest of all, he, according to nature, requires the best and purest productions of the earth to supply the waste constantly occurring in his ever-changeing body.

The question then arises, What is food for man? Understanding the fact that a constant change is taking place, the question naturally suggests the answer. As a matter of course, it would follow that the proper food for man consists in those things which the functions of the body, in a normal state, can transform into the tissues of the same. Here may be discerned the first law of nature, "self-preservation."

Our other relations to the external world being in a normal state, what would be the effect discernible to our senses, of any departure from nature in relation to food? A sense of uneasiness among the functions or machinery of the body—if the body may be called a machine—and a return to nature's laws would remove the uneasiness.

What then, among the many productions of the earth, can be used as food when taken in proper quantities and homogeneous combinations? My reply would be, The grains, fruits, and vegetables, as these are the best in a normal state to supply the waste tissue.

One of the best evidences of the truth of this statement, to my mind, is the fact that they are readily recognized by the senses as something pleasing to them when they approximate anywhere near perfection, and "*vice verse.*" Another fact is, that the non-appropriable portion of them does not counteract the substantial benefit to the system of those portions that are appropriated; but, on the other hand, they aid in preparing and placing that which is required. Therefore, any thing containing non-appropriable matter which, when taken into the system, commences, so to speak, a warfare against the vital functions, can safely be counted out as not the best for the human structure; for, to preserve the body in the best possible health, there must be perfect harmony in the working machinery.

Food has much to do with health, and should not be looked upon as a secondary item; it is the substance convertible into power to build up the waste places, and to tear down that which is not needed, thus keeping the body in repair.

DR. G. S. HONEYWELL.

How to Stop Coughing.—In a lecture in Boston, the celebrated Dr. Brown Sequard gave the following directions, which may prove serviceable to persons troubled with a nervous cough :—

"Coughing can be stopped by pressing on the nerves of the lip in the neighborhood of the nose. A pressure there may prevent a cough when it is beginning. Sneezing may be stopped by the same mechanism. Pressing, also, in the neighborhood of the ear, may stop coughing. It is so, also, of hiccough, but much less so than for sneezing or coughing. Pressing very hard on the top of the mouth inside is also a means of stopping coughing. And I may say that the will has immense power there. There was a French surgeon who used to say, whenever he entered the wards of his hospital, 'The first patient who coughs here will be deprived of food to-day.' It was exceedingly rare that a patient coughed then."

How Girls Are Made Pretty.—The Hindoo girls are graceful, exquisitely formed. From their earliest childhood they are accustomed to carry burdens on their heads. The water for family use is always brought by the girls in earthen jars, carefully poised in this way. This exercise is said to strengthen the muscles of the back, while the chest is thrown forward. No crooked backs are seen in Hindostan. Dr. Henry Spry, one of the company's medical officers, says that "this exercise of carrying small vessels of water might be introduced into our boarding-schools and private families, and that it might supersede entirely the present machinery of dumb-bells, backboards, skipping-ropes, etc. The young lady ought to be taught to carry the jars as these little Hindoo women do, without ever touching it with their hand."

The same practice of carrying water leads to precisely the same results in the south of Spain and in the south of Italy as in India. A Neapolitan female peasant will carry on her head a vessel full of water to the very brim over a rough road and not spill a drop of it, and the acquisition of this art or knack gives her the same erect and elastic gait, and the same expanded chest and well-formed shoulders.—*Home and School.*

Extract of Dog.—Some of the journals are making quite an ado about "California Cod-Liver Oil," made according to the process described below, but we would like to inquire in what particular the fat from the putrid livers of cod fish can be any more wholesome or medicinally valuable than the fat of freshly killed dogs thoroughly stewed.

"There is a firm in San Francisco who purchase the thousands of dogs slaughtered by the pound-master of that city, or that may have been otherwise killed, for which they pay forty cents each. The carcasses are conveyed to their manufactory at South San Francisco, where the skins are removed and sold to the tanneries, the hair taken off and resold to plasterers, the hide tanned, made into gloves, and sold in the market. The denuded carcass is then thrown into a huge caldron, and boiled until the bones are easily separated from the flesh, when they are removed and sold to the sugar refineries, where they are ground to a fine powder and used to clarify sugar. The oil that rises to the surface of the boiling mass is skimmed off and made into cod-liver oil, and the remainder is used for fattening hogs."

Cost of Luxuries.—The following item is good evidence of the fact that the unnecessaries of life cost far more than the essentials :—

"A selfish man counts up in the *Cincinnati Commercial* his expenditures for forty-five years as follows : Night lunches, $5,850; theatricals, $5,625; billiards, $3,375; tobacco, $1,125; cigars, $6,570; bar bills, $8,875; champagne, $2,750; carriage hire, $2,350. And yet he met the slightest request for a little pleasure made by his family with the reply, 'You must practice economy.'"

LITERARY MISCELLANY

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

Labor as a Blessing.

BY MRS. ELLEN G. WHITE.

MANY look upon work as a curse, originating with the enemy of souls. This is a mistaken idea. God gave labor to man as a blessing, to occupy his mind, to strengthen his body, and to develop his faculties. Adam toiled in the garden of Eden, and felt it to be one of the pleasures of his holy existence to do so. Later, when he was driven from his beautiful home, as the result of his disobedience, and was forced to struggle with a stubborn soil to gain his daily bread, that very labor, although far different from his pleasant occupation in the garden, was a relief to his sorrowing soul, a protection against temptation.

Judicious labor is a healthful tonic for the human race. It makes the feeble strong, the timid brave, the poor rich, and the wretched happy. Our varied trusts are proportioned to our various abilities. Every man will be rewarded of God according to his individual capacity. He expects corresponding returns for the talents he has given to his servants. It is not the greatness of the talents possessed that determines the reward, but the manner in which they are used, the degree of faithfulness with which the duties of life have been performed, be they great or small. Where much is given much will be required.

Whoever does his work conscientiously and well, whether in the shop, the field, or the pulpit, will be rewarded according to the spirit in which he has worked.

Idleness is the greatest curse that can fall upon man; for vice and crime follow in its train. Satan lies in ambush, ready to surprise and destroy those who are unguarded, whose leisure gives him opportunity to insinuate himself into their favor under some attractive disguise. He is never more successful than when he comes to men in their idle hours.

The greatest curse following in the train of wealth is the fashionable idea that work is degrading. "Behold, this was the iniquity of thy sister Sodom, pride, fullness of bread, and abundance of idleness was in her, and in her daughters, neither did she strengthen the hand of the poor and needy." Eze. 16:49. Here is presented before us the terrible results of idleness, which enfeebles the mind, debases the soul, and perverts the understanding, turning into a curse that which was given as a blessing.

God designed that all should be workers, and upon those whose opportunities and abilities are greatest rests the heaviest responsibilities. The patient beasts of burden deserve more commendation than the indolent do-nothing who does not improve his physical and mental powers, refusing to do the tasks which God has set for his accomplishment.

The indolence of the many occasions the overwork of the few earnest and devoted laborers. These are failing for want of recreation, sinking beneath the double burdens they are bearing. Their graves are waymarks along the upward paths of reform. This is because they are allowed to do the work of others in addition to their own. A large class refuse to think and act for themselves; they have no disposition to step out of the old ruts of prejudice and error; they block up the way of advancement with their indolence and perversity, and force the standard-bearers of the right to more heroic efforts in their march forward.

The glory and joy of life is found only by the working man and woman. Labor brings its own reward, and the rest is sweet that is purchased by the fatigue of a well-spent day. But there is a self-imposed toil, utterly unsatisfying and injurious. It is that which gratifies unsanctified ambition, which seeks display or notoriety. The love of appearance or possession leads people to carry to excess what is lawful, to devote the entire strength of body and mind to that which should occupy but a small portion of their time. They bend every energy to the acquisition of wealth or honor; they make all other objects secondary to this; they toil unflinchingly for years to accomplish their purpose; yet when the goal is reached, the coveted reward secured, it turns to ashes in their grasp; it is a shadow, a delusion. They have given their lives for that which profiteth not.

Yet all the lawful pursuits of life may be safely followed if the spirit is kept free from selfish hopes and the contamination of deceit and envy. The business life of the Christian should be marked with the same purity that held sway in the workshop of the holy Naz-

arene. It is the working men and women who see something great and good in life, those who are willing to bear its responsibilities with faith and hope.

Patient laborers, remember they were sturdy working-men whom Christ chose from among the fishermen of Galilee and the tent-makers of Corinth, to labor with him in the work of salvation. From these humble men went forth a power that will be felt through all eternity.

The angels are workers; they are ministers of God to the children of men. Those slothful spirits who look forward to a Heaven of inaction will be disappointed, for the economy of the Creator prepares no such place for the gratification of sinful indolence. But to the weary and heavy-laden rest is promised. It is the faithful servants who are welcomed from their labors unto the joy of their Lord. They will joyfully lay off the armor, and forget the noise of the battle in the peace that shall be the inheritance of the saints.

The path of the Christian laborer may be hard and narrow, but it is honored by the foot-prints of the Redeemer, and he is safe who follows in that sacred way.

A Glance at the Exhibition.

We have been visiting the Centennial Exhibition during the past week, and, truly, the half has not been told, nor probably ever will be by any one person, for it is impossible for a single mind to grasp the sum total of so grand an exposition.

The first impression upon entering the main building is not particularly pleasant. One is bewildered by the magnitude of the exhibition, the number of departments, the glitter and glare of the whole scene, and the irregularity of classification and arrangement, which makes it an almost hopeless task to make a systematic survey of everything in its proper order.

The first day is usually devoted to a general view of the premises, a run through the main building, and a dash around the entire grounds on the steam train that makes the circuit in fifteen minutes. There is a double track, and trains are continually running in both directions.

By noon you are glad to drop down and lunch at one of the many restaurants, and are surprised to find the rates as cheap as they are at home. After this, a peep is taken into the Art Gallery, or Machinery Hall, or Agricultural Hall, or wherever the individual bent of your mind would lead you, provided you are alone, or your party is susceptible to moral suasion.

By night you leave the gates thoroughly done out and not a little discouraged in view of the herculean task of seeing and arranging in the mind the various exhibits of the greatest show the world has ever known. But by the second visit you begin to find your bearings, to realize what departments or special objects would be of the greatest interest to you. It becomes possible to find them. The terrible, brain-distracting catalogues and guide-books, that were about as intelligible as Egyptian hieroglyphics, begin to take on some shape and meaning, and you thread the mazy labyrinth of the great exhibition with returning courage.

Finding it cheaper and pleasanter, we took rooms at Wilmington, Delaware, twenty-six miles from Philadelphia. The train reaches the Centennial grounds by the time of opening in the morning, and leaves at 5 : 40 in the evening, twenty minutes before the buildings are closed. We found it a rest, after the dazzle and fatigue of the day, to sink quietly into our seats and glide out of the rush and turmoil of the great city. Through the green fields and by the smiling river, our train cut across the summer stillness of the country landscape, and by the time we reached our destination, we were rested in mind and body, ready for another battle with the great exhibition in the morning.

The Main Building is in the form of a parallelogram, extending east and west 1880 ft. and north and south 464 ft. in width. Upon the corners are four towers 75 ft. in height. The building presents a beautiful appearance, from the outside, and the interior does not disappoint the visitor.

The departments of the classification are in parallel sections running lengthwise of the building, while the countries exhibiting, are located geographically in sections running crosswise of the building, from north to south. Machinery Hall is 542 ft. west of the Main Building, and covers 14 acres beside an annex 208 ft. by 210. This building is durable as well as beautiful, and will remain. Its width is 360 ft., and it is well ventilated and furnished with water-pipes and drainage, as are also most of the buildings upon the ground. Promenades fifteen feet in width run the entire length of the building, and the machinery is disposed in such a way as to be conveniently inspected by visitors.

The Art Gallery is very beautiful, built of granite and iron. It is 365 ft. by 210, and 59 ft. in height, with a dome in the center upon which is a striking figure of Columbia. Three arched door-ways 40 by 15 ft. give entrance. The interior is magnificent in design and the

light such as to show off the works of art to the best advantage. This Memorial Hall is a centennial monument of which America may well be proud. It is to remain as a national Gallery of Art, though its present blaze of pictures and glimmer of statuary will fade after the great show is over.

Horticultural Hall is conveniently near, and forms an attractive feature of the Exhibition. It is large, and conveniently arranged, and all manner of wonderful plants and trees are growing in their native luxuriance. It is easy to imagine yourself in China, Japan, Australia, or Africa, as you wander among the palms, giant tree-ferns, and all sorts of foreign vegetation, with the biggest of leaves and blossoms, and the crookedest of names. The dripping of a fountain comes gratefully to the ear, and the air is faint with the heavy fragrance of tropical flowers.

Standing upon the broad stone steps of the entrance, one looks down a long vista of green, close-shaven lawn, sparsely sprinkled with evergreen shrubs, and lit up by glowing parterres of flowers in fanciful shapes, whose colors are blended and shaded as with the brush of an artist. In the midst, a magnificent fountain plashes in its wide stone basin upon the dripping naiads that support its bowl. Broad, paved walks lead in all directions, and the shifting multitudes move hither and thither, before the eye, a kaleidoscopic vision of living humanity. Different nationalities and various costumes, contrasting strongly with each other, drift together in a never ending stream.

The Exhibition grounds is a miniature city. Numerous beautiful buildings in various attractive styles of architecture, from the Chinese bungalow to the New England log-house, dedicated to Revolutionary relics, greet the eye everywhere. Broad boulevards sweep through the grounds, and the train, in its circuit, winds around among the principal buildings, making frequent stops, and furnishing a rapid and easy transit from one point to another in the open and convenient cars. Leaving the crowded walks, you find retired nooks in the little groves and by the brook-sides where you may rest or lunch, and dream you are in the country.

But to return to the Exhibition. There are so many departments, and different objects of great interest to the general visitor that a week's time does not give one even the opportunity for a cursory survey of the exhibits. A systematic course of sight-seeing would occupy several months. I do not mean by this that any one person would, in that time, be able to understand and appreciate all the exhibits, for that would necessitate a universal knowledge, but one could, in that time, form a tolerable idea of what the different departments contain, and have opportunity for some special study of those in which he is particularly interested.

The Chinese and Japanese departments have a peculiar charm for most people, with their pyramids of lacquered ware of every description, from the giant jar six feet in height, to the tiny tea-cup from which a mandarin might sip his ambrosial beverage. Then there are curious wood-carvings that combine the most patient and skillful execution with the most hideous of designs; and pictures of celestial beauties with open mouths and oblique eyes. One immense piece of silken needle-work is a marvel of execution; it is an army of grasshoppers with a left flank of ducks and geese, and a rear-guard of rats. The meaning of this astonishing medley was a mystery we did not attempt to fathom, but it might have been a vision of hasheesh, or the coat of arms of a Kansas farmer.

One thing in the Chinese department every one must notice: it is an immense cane-bottomed bedstead of carved oak. It is very tall, and from foot to canopy, it is one mass of carefully wrought ugliness. Horrible demons, writhing serpents, impossible birds, and every species of hideous deformity vie with each other to create the most frightful effect. It would require considerable moral courage to sleep on such a piece of furniture with a grinning fiend peering at you from each bed-post.

The Egyptian department is very interesting to one who likes to drift back into the past. The inscription upon its entrance is singularly appropriate and suggestive: "Egypt, the oldest people of the earth sends its morning greeting to America, the youngest nation." Entering here it is easy to imagine you have dropped back into the days of the Pharaohs. Models of the pyramids greet the eye, Arabic tombstones covered with hieroglyphics, dromedary saddles glittering with gilt trappings, and ancient equipments of war. Plaster casts of the Pharaoh of Moses gleam from every niche and bracket, and as you look about for an attendant, it would scarcely be a surprise if one of them should step down to extend you information concerning the masonry of the pyramids or the designer of the sphynx.

One thing disappoints you. Some way you had expected to see these foreign departments presided over by natives, dressed in their national costumes. But, with the exception of an occasional Tunese, in his bright, picturesque dress, or a Chinaman, with his ridiculous wooden shoes and shapeless blouse, you

see only the stiff, sombre European costume. Where you had expected flowing robes and silken sashes, and gilded toggery, you behold only the quiet black suit and the capacious ulster. Still this respectable looking clothing sets rather uncomfortably upon some dark-eyed strangers, whose awkward movements show that they have not long been accustomed to such uncomfortable garments. No doubt the impertinent curiosity of the crowds decided our foreign visitors to adopt for the time the barbarous costume of an American gentleman. M. L. C.

Art of Listening.—Any conversation, however ably conducted, may be spoiled by bad listeners. There are various classes of such offenders, examples of each of which may not seldom be met with in a single large party. The least blamable, and the least embarrassing, but often sufficiently so to distract the best talkers, and to hinder the progress of discourse, are the nervous and fidgety, who, although perhaps desirous and intending to give attention to the subject under treatment, are unable to control physical restlessness while others are speaking. This manifests itself in various ways—by wanderings of the eyes, movements of the limbs, arrangements of the dress, taking up and putting down books and other objects, and often by very ungainly tricks practiced by an astonishingly large number of sensible, well-educated, and otherwise well-conducted people. In the close communication of social intercourse, such people are stumbling-blocks to conversation.

Laughter at a Discount.—Some interesting information respecting the Weddas of Ceylon was given by Mr. Hartshorne, of the Bengal Civil Service, at the recent meeting of the British Association. The Weddas are a diminutive race of people, averaging about five feet in hight, and appear to lead a harmless, if not a happy existence. The Jungle Weddas, so termed to distinguish them from the Village Weddas, drink nothing but water, and feed principally on honey and roast monkeys, which latter they shoot with bows and arrows. One of their peculiarities is that they never laugh; and although Mr. Hartshorne, when visiting them, did his best in the way of jocularity, "trying every conceivable method for arousing laughter," he ignominiously failed. His jokes all fell flat, and he found that even the sight of another person laughing produced in them a feeling of unmistakable disgust. Upon being asked whether they ever laughed, they replied, "No. Why should we? What is there to laugh at?"

Young Man, whose House Are you Shingling?

Wife. "I wish that man would go home, if he has one to go to."

Landlord. "Hush! hush! he'll call for something to drink, directly."

Wife. "I wish he would make haste about it, then, for it's time every honest man was in bed."

Landlord. "He's taking the shingles off his own house and putting them on ours."

At this time James began to come to his right senses, and commenced rubbing his eyes, and stretching himself, as if he had just awoke, said:—

"I believe I will go."

"Don't be in a hurry, James," said the landlord.

"Oh! yes; I must go," said James, and he started.

After an absence of some time the landlord met him and accosted him with:—

"Hallo, Jim, why ain't you been down to see us?"

"Why, I had taken so many shingles off my house it began to leak; so I thought it time to stop the leak, and I have done it," said James.

The tavern-keeper and his wife were astonished. James is now a happy man, and his wife and children are happy too. Young man, whose house are you shingling?—*Irish World.*

Overgoverning Children.

CHILDREN are often brought up without any particular habits of self-government, because the governing is done for them and on them. A girl that is never allowed to sew, all of whose clothes are made for her and put on her till she is ten, twelve, fifteen, or eighteen years of age, is spoiled. The mother has spoiled her by doing everything for her.

The true idea of self-restraint is to let the child venture. A child's mistakes are often better than its no mistakes; because when a child makes mistakes, and has to correct them, it is on the way toward knowing something. A child that is waked up every morning, and never wakes himself up; and is dressed, and never makes mistakes in dressing himself; and is washed, and never makes mistakes about being clean; and is fed, and never has anything to do with its food; and is watched, and never watches himself; and is cared for and kept all day from doing wrong,—such a child might as well be a tallow candle, perfectly straight, and solid, and comely, and unvital, and good for nothing but to be burned up.

The poor weaver who has a large family of children, without bread enough for half of them, and sets them to work before they are five years old, is a philanthropist. You may gather around them, and mourn over them, but blessed be the weaver's children; the twelve children of the poor weaver will turn out better than the twelve children of the millionaire. I would rather take an insurance on the weaver's children than on the millionaire's.

Blessed are those that learn by the hard way of life what every man must learn first or last, or go ashore a wreck; namely, self-restraint. The steel that has suffered most is the best steel. It has been in the furnace again and again; it has been on the anvil; it has been tight in the jaws of the vice; it has felt the rasp; it has been ground by emery; it has been heated, and hammered, and filed until it does not know itself, and it comes out a splendid knife. And if men only knew it, what are called their "misfortunes" are God's best blessings, for they are the moulding influences which give them shapeliness, and edge, and durability, and power.—*Sel.*

Animal Intelligence.

A LADY of my acquaintance once saw a curious instance of reasoning in a toad. She was sitting in a garden, when she saw something alive moving along the base of the wall, which was an old one and full of crevices. The object proved to be a large toad, which was examining the wall in a most systematic fashion. She saw the creature raise himself on his hind legs, peer into a crevice first with one eye and then with the other. Then he tapped the wall with his paw, and pushed it into the aperture. Evidently dissatisfied, he went away, and tried another crevice in the same manner and with the same result. A third, however, was larger than the others; and this seemed to be to his taste, for he slowly drew himself up the wall and disappeared into the crevice.

It was evident that the creature knew his own dimensions, and was taking measurements of the crevices in order to find one that would allow him to enter. Toads, by the way, possess sufficient reason to be easily tamed, and to come at a call.

Some years ago there was a dog at Margate which knew the use of money. He used to beg for pence, and take them to a baker to be exchanged for biscuits, at a shop in the narrow, hilly lane which is pleased to assume the title of High Street. One day the baker, wishing to see how the dog would behave if he played the animal a practical joke, took the penny and gave him a burned biscuit. The next time the dog had a penny he took it to the baker as usual, showed it to him, and then went off to another baker who lived nearly opposite. This he afterward did invariably, showing the penny to the baker who had offended him, and then transferring his custom to the rival on the opposite side of the narrow street.

The whole of these proceedings were dictated by pure reason, and instinct had nothing to do with them. It was, in fact, doing on a small scale precisely what the dog's master would have done on a large scale if a tradesman had taken his money and given him a bad article for it. He would have withdrawn his custom from the offender, and given it to another man who he thought would serve him more honestly.

No one can say that instinct had anything to do with these proceedings, the dog in each case deducing a conclusion from premises, and deducing them rightly. Had a child acted in the same manner, we would have thought it a very clever child; but we certainly should have attributed its action to reason, and not to instinct; and I do not see that we have any right to attribute reason to the one and to deny it to the other.

A correspondent of *Land and Water* gives an interesting account of a similar mode of proceeding on the part of two long-horned cows. The door of the hay-chamber opened outward, and was fastened by a latch lifted by the finger thrust through a hole in the door. The cows had seen this done, and, if left alone, would invariably open the door by inserting the tip of a horn into the finger-hole, lifting the latch, and then drawing the door toward them. He also describes the mode in which a cat opened a kitchen door, by jumping up and hanging on the handle of the latch.

The same correspondent mentions a horse which was accustomed to pump water for himself. The pump was in a corner of the horse-box in which the horse was shut for the night, and the coachman used to be puzzled at the fact that when he came in the morning the end of the stable was always an inch or so deep in water. At last he suspected that the horse might have been the delinquent, and so fastened him up without giving him any water, and watched him unobserved when let loose in the morning. The animal went at once to the pump, took the handle in his teeth, worked it up and down, and, when the water was in full flow, placed his mouth under the spout to drink. He could not endure being watched while pumping, and if he

saw any one observing him, he would rush at him with open mouth in order to scare him away.—*J. G. Wood.*

The Moon and the Weather.—The notion that the moon exerts an influence on the weather is so deeply rooted that, notwithstanding all the attacks which have been made against it since meteorology has been seriously studied, it continues to retain its hold upon us. And yet there never was a popular superstition more utterly without a basis than this one. If the moon did really possess any power over the weather, that power could only be exercised in one of three ways—by reflection of the sun's rays, by attraction, or by emanation. No other form of action is conceivable. Now, as the brightest light of a full moon is never equal in intensity or quantity to that which is reflected towards us by a white cloud on a summer day, it can scarcely be pretended that weather is affected by such a cause. That the moon does exert attractions on us is manifest—we see its working in the tides; but though it can move water, it is most unlikely that it can do the same to air, for the specific gravity of the atmosphere is so small that there is little to be attracted. Laplace calculated, indeed, that the joint attraction of the sun and moon together could not stir the atmosphere at a quicker rate than five miles a day. As for lunar emanations, not a sign of them has ever been discovered. The idea of an influence produced by the phases of the moon is therefore based on no recognizable cause whatever. Furthermore, it is now distinctly shown that no variations at all really occur in weather at the moment of the changes of quarter any more than at other ordinary times. Since the establishment of meteorological stations all over the earth, it has been proved by millions of observations that there is no simultaneousness whatever between the supposed cause and the supposed effect. The whole story is a fancy and a superstition which has been handed down to us uncontrolled, and which we have accepted as true because our forefathers believed it. The moon exercises no more influence on the weather than herrings do on the government of Switzerland.—*Blackwood.*

An Extraordinary Fire-proof Suit.—A few days since, an exhibition of the new Oestberg fire-extinguishing apparatus took place on the Linden strasse, in Berlin, in the presence of the Emperor, the Empress, the Crown Prince, the Grand Duke of Baden, the Swedish Minister, the Ministers of War and the Interior, and other distinguished persons. The inventor, who is a Swede named Oestberg, and Messrs. Brandt and Nawrocki, who had charge of the exhibition, were presented to the Empress before the experiments took place.

Capt. Ahlström appeared in a peculiar looking costume made of the Oestberg invention, and walked into an immense fire made of wood saturated with petroleum. The heat of the fire was so intense that no one else could approach within eighty paces without being burnt or scorched. The captain, however, walked around in the glowing pile perfectly undisturbed, leaning on the burning wood, and finally quietly seating himself on the coals. He remained in the fire for fifteen minutes, and on his coming out, every one pressed round to see how much he had been injured. He was unharmed, and in spite of the emperor's asseveration that he had seen enough of so dangerous an experiment, Capt. Ahlström went again into the fiery oven.—*Zeitung.*

What Ugly Toes Women Have.—Conova chose five hundred beautiful women from whom to model his Venus, and among them all could not find a decent set of toes. If he lived nowadays what luck would he have under the dainty little buttoned boots, with their sharp-pointed heels?

As soon as the helpless baby can put its foot on the ground, and before it can complain in words, shoes are put on it by which the width of the toes is contracted fully half an inch; and usually a stiff counter is ordered in the heel, with some vague idea of "strengthening the ankle." From that time, no matter how watchful or sensible its parents may be in other respects, these instruments of torture always constitute part of its dress. The toes are forced into a narrower space, year by year, "to give a good shape to the foot," until they overlap, and knot and knob themselves over with incipient corns and bunions. Then the heel is lifted from the ground by artificial means, and thus the action of the calf muscles is hindered and the elastic cartilage of the whole foot is stiffened at the earliest and most tender period of its growth.

The results are a total lack of elasticity in the step and carriage, and a foot inevitably distorted. American women are noted for their cramped and mincing walk. Southern children are more fortunate in this matter than those in the North, as it is customary, even in the wealthiest classes, to let their feet go uncovered until the age of six.

Mothers in the North are not wholly too blame, however, as the climate requires that

the feet shall be covered, and it is almost impossible, even in New York, to find shoes properly made for children, unless a last is ordered for the foot. As a new last would be required every month or so, very few parents are able to give the watchfulness and money required; but if the proper shape were insisted upon by those buying shoes, dealers would quickly furnish them.—*Cin. Com.*

The Best of Companions.—Search where you will, you cannot find a more companionable person than yourself, if proper attention be paid to the individual. Yourself will go with you wherever you like, and come away when you please—approve your jokes, assent to your propositions, and, in short, be in every way agreeable, if you only learn and practice the true art of being on good terms with yourself. This, however, is not so easy as some imagine, who do not often try the experiment. Yourself, when it catches you in company with no other person, is apt to be a severe critic on your faults and foibles, and when you are censured by yourself, it is generally the severest and most intolerable species of reproof. It is on this account that you are afraid of yourself, and seek any associates, no matter how inferior, whose bold chat may keep yourself from playing the censor. If, then, you would find true happiness, study to be on good terms with yourself.

The Habit of Reading.—"I have no time to read," is the common complaint, and especially of women whose occupations are such as to prevent continuous book perusal. They seem to think, because they cannot devote as much attention to books as they are compelled to devote to their avocations, that they cannot read anything. But this is a great mistake. It is not the books we finish at a sitting that always do us the most good. Those we run through in the odd moments, half a dozen pages at a time, often give us more satisfaction, and are more thoroughly digested, than those we make a particular effort to read. The men who have made their mark in the world have generally been the men who have in boyhood formed the habit of reading at every available moment, whether for five minutes or for five hours.

A Sensible Father.—The will of a rich citizen of New York provides that his two sons shall have no share in his estate after they have reached the age of twenty-four years, it being the belief of the testator that a well-educated man of that age should be able to take care of himself. The provision seems at first to be eccentric, but it may be doubted if a parent owes more to his son than a good education, a profession, or a trade. Within his own experience almost everybody knows of young men who have been ruined by coming into possession of ten thousand dollars or fifteen thousand dollars which they have not earned, it having been left them by will. A parent owes it to his son to provide him with the means of earning a living, but nothing more, and there would be a great deal less trouble in the world if all fathers acted like this one, and gave their children to understand, in time, that they must work for themselves and expect nothing from their father's death.

A Slow Pulse.—In a discussion upon the frequency of the pulse, at a recent meeting of the Clinical Society of London, it was asserted that a slow pulse in no wise interfered with health, and some remarkable cases were mentioned. The most interesting was that of Dr. Hewan, related by himself. Twenty-one years ago, after prolonged study and work, his pulse fell from seventy-two to fifty-five, and he felt very cold; from that time its frequency gradually decreased until about eleven years later, when it was but twenty-four beats per minute. Its present rate is but twenty-eight. Notwithstanding these facts, he has not suffered from fainting fits, or cold, and is capable of great physical exertion, of which evidence is to be found in his ascent of a high mountain on the continent; and his digestion remains unimpaired. Another speaker said that Napoleon I. had a slow pulse, the rate being from thirty to forty per minute; and a third member mentioned the case of a horses' pulse which was only sixteen.

Acknowledgments.—Many act on the supposition that a superior should not make acknowledgments to an inferior, employer to employed, teacher to student, parent to child. And the position is well taken if there is no error to be acknowledged. But, as responsible position seems to have no inherent corrective or sanctifying power, it must be confessed that those occupying such positions are still human and liable to err, and, in actual fact, sometimes do err. And now does the exalted one sink in the estimation of those under him by confessing error? Does he not rather rise in their esteem for his apparent magnanimity? Those in positions of influence should be examples worthy of imitation in everything that is honorable and just and good.

One Hundred and Fifty Years Ago.

A CORRESPONDENT of the N. Y. *Evening Post*, in describing the manners and customs of the inhabitants of Concord, N. H., one hundred and fifty years ago, makes the following among other observations :—

"The settlement of Concord was nearly one hundred years later than that of Dover, Portsmouth, Hampton, and other sea coast towns, dating, in fact, as late as 1727, and yet old Puritan customs were brought hither from Massachusetts, and long held sway over the people. Everything which had the appearance of levity, even in the beginning of the eighteenth century, was discarded by the Pilgrims. The drinking of healths and the use of tobacco were forbidden, the former being considered a heathenish and idolatrous practice, grounded on ancient libations, the other as a species of intoxication. Laws were instituted to regulate social intercourse between the sexes and the advances toward matrimony. Pride and ostentation came under the cognizance of the magistrate. Modes of dress, cut of hair, manner of speech, style of carriage and bearing, hours of rising in the morning and retiring at night, too rapid driving on the roads, too loud, prolonged, or frequent laughter, bad conduct on the Lord's day, and a thousand other things not regarded now as coming under the jurisdiction of the civil magistrate, were made subjects of municipal regulations. Women were forbidden to expose their arms or shoulders to view. Sleeves of gowns were to reach to the wrist, and the neck was to be close. Men were required to cut their hair short, so as not to resemble the other sex. No person not worth two hundred pounds was allowed to wear gold or silver lace, silk hoods, or embroidered scarfs.

"The ordinary food of the early settlers here for both breakfast and supper was bean porridge with bread and butter. On Sunday morning there was coffee in addition. Brown bread, made of "rye and Indian," was the staff of life, white bread being used only when guests were present. Baked pumpkins and milk composed a dish said to have been luxurious. For dinner, twice every week, Sundays and Thursdays, baked beans and baked Indian pudding, the latter being served first; Saturdays, salt fish; one day in every week salt pork and corned beef; and one day also roasted meat, was the rule.

"The ancient dress of the men was a woolen coat, striped woolen frock, tow or leather breeches tied or buckled at the knee, and cowhide shoes with leathern buskins. Sunday hats were three-cornered, kept in a wooden box, and made to last a lifetime. The dress of the women consisted of chemise, petticoats, tow gowns, tyers, thick woolen stockings, and cowhide shoes.

"One hundred years ago it took two days to go from Concord to Boston; it now takes three hours. Then the price of supper, lodging, and breakfast on the road was a pistareen and a half (thirty cents); now it is three dollars. Then all work was honestly done (as witness two pork barrels in the cellar under the house in which I write, which have been in use since 1731); now honest work, as the term was then understood, is unknown. Then girls were educated to become thrifty wives and healthy mothers; now it is considered more important to make a good match. In 1772 the average number of children in each family in New Hampshire was seven; it is now two; there was at that time one physician to every four hundred souls; there is now one to every seventy-five; suits at law for all purposes not criminal then averaged one annually for every hundred inhabitants; they now average one for every twenty-four. The expenses which a well-to-do family incurred every year for its support were at that time four hundred dollars; they are now nearly thrice that sum."

Self-Respect.—It is very desirable to have the respect and esteem of others; and to gain such many dishonorable things are often done. But it is far more desirable for a man so to live that he may always respect himself; for, knowing his own heart and the promptings of his own thoughts, he alone of all mankind is able to judge aright as to his real character, and he can appear to others, for no considerable length of time, better and nobler than he really knows himself to be.

Origin of Musical Notes.—Musical notes are said to have been invented by Guido Aretino, a Benedictine monk of Arezzo, in Italy, in A. D. 1025. The present system was perfected some three hundred years later, and the system of counterpoint and harmony completed about the middle of the sixteenth century.

A LITTLE six-year old boy went into the country visiting. About the first thing he got was a bowl of bread and milk. He tasted it, and then hesitated a moment, when his mother asked him if he did n't like it, to which he replied, smacking his lips : "Yes, ma'am ; I was only wishing our milkman would keep a cow."

DIETETICS.

"Eat ye that which Is Good." As a Man Eateth, so Is he.

Fruits.

FRUITS may be distinguished from vegetables by the circumstance that they contain hardly any nitrogen or plastic material, while vegetables are valuable mainly on account of the starch and albumen which they yield, and also by the fact that, when ripe, fruits require no cooking to render them palatable and digestible, while vegetables do.

Fruits consist essentially of two parts, the juices and the cellular parts in which the juices are contained; the juices are easily digestible but the cells are not, and are, therefore, when possible, thrown away. All fruits contain much more fruit than solid matter, and supply sugar, acids, salts, and the various volatile essences on which their flavor depends.

The grape was doubtless one of the earliest fruits eaten by man. It was cultivated by the oldest civilized Eastern nations, whence probably it was carried into Europe, as it does not grow there wild. It abounded in Syria and Persia. The Romans planted it on the banks of the Rhine, and toward the close of the Roman power in England we find it cultivated in several parts of that country by the Anglo-Saxons; afterward, while monasteries existed, few of them were without their vine-yard. In Switzerland and other parts of Europe, ripe grapes are considered a specific for dyspepsia, consumption, and some other complaints. Grapes contain sugar, gum, glutinous matter, malic, citric, and tartaric acids, potash and lime, in proportions varying with the kind of grape and the different conditions of soil and climate in which it is grown. There are nearly three hundred varieties of grapes enumerated in the catalogues of vine-growers.

The apple is described by Homer as one of the precious fruits of his time. It was cultivated and highly esteemed among the Romans, who brought it from the East, and set a very high price upon fine bearing trees. The best varieties are natives of Asia, and have been introduced into Europe by grafting upon others. Of no other fruits are there so many excellent varieties in cultivation, the number enumerated in the lists being about 1,500. The apple is the growth of temperate and cold climates, and is not found within the tropics or above the latitude of 60°. Apples contain sugar, malic acid, gum, woody fiber, and water, together with some aroma on which their peculiar flavor depends. Though chemical analysis may show much less nutriment in apples than in many other foods, there is much available nutriment in them, and the vital analysis in the digestive apparatus uses them up closely. Pears were brought from the East by the Romans, who cultivated them with care. The pear is a hardy tree, and longer lived than even the apple. The best varieties of the pear rank deservedly among the most delicious of fruits. In composition, the pear does not differ very greatly from the apple.

The peach is a native of Persia and was called by the Romans, Persica. Both in the fresh and preserved state, it is a very favorite dessert.

The cherry was brought from a town in Asia called Cerasus by the Roman general, Lucullus, and from Italy it spread to other parts of Europe. Some varieties of cherry are indigenous to nearly all temperate countries; but the best varieties came, as above stated, from Asia. In the fifteenth century cherries were hawked about the streets of London just as at the present day. About two hundred varieties of the cherry are known.

Where the orange first grew is not certainly known; some classic commentators suppose that the golden apples of the Hesperides were oranges. Sir Walter Raleigh brought the first orange tree to England. At Hampton Court there are said to be some 300 years old; at Cordova, in Spain, the seat of the ancient Moorish grandeur, there are orange trees 600 or 700 years old. The agreeable sub-acid of the orange renders it one of the most agreeable, cooling, and wholesome of fruits. Other fruits, as the strawberry, raspberry, blackberry, differ from the peach, apple, and pear, chiefly in their flavor.—*Sel.*

Canning Fruit.—An abundant supply of fruit is one of the most indispensable requisites of a hygienic bill of fare, at all seasons of the year. Many kinds of fruit can be preserved fresh only by canning. The most luscious and abundant of all rapidly perishable fruits at this season of the year, is the peach. In many localities, this fruit is very abundant and cheap for a few weeks during the height of the season. Then is the time to secure a year's supply.

Canning need not be a very expensive nor difficult operation. If care is taken to secure a choice variety of fruit—and none other should be selected—only a small quantity of sugar will be required to make the fruit entirely palatable; yet it is best to add whatever sugar is to be added, at the time of canning. With care in putting up the fruit, there need be little or no loss.

But even in localities where fruit cannot be obtained so cheaply, it will pay to secure a sufficient supply. There are those who entertain the erroneous notion that the principal object of health reform is to economize in the expense of living, to save money. Even if this were the case, it would be very poor economy to deprive the system of a good variety of healthful and nourishing food. Hygienists can afford to live upon the very best articles of vegetable food which can be procured; for if they are consistent and thorough in their efforts, they will find the greatest saving of expense in the immunity from sickness—incurring loss of time and expensive doctors' bills—which they enjoy.

Let every hygienist lay in a stock of wholesome good things for winter and spring use.

Tea-Plant in Texas.—Texans are rejoicing in the discovery that the China tea-plant will flourish in her soil under proper cultivation. Now if some enterprising tiller of the soil will go to raising poppies, and so meet the rapidly increasing demand for the king of narcotics, opium, we shall be duly supplied by domestic production with the four great poisons which are sapping the vitality of the human race in every part of the known world, from Cape Horn to Kamtchatka, and from Good Hope to Labrador. Opium, alcohol, tobacco, and tea—essentially alike in the character of their effects, differing chiefly in degree—will always supply plenty of business for judges, lawyers, doctors, and undertakers. If they must be had, to make lively times for the individuals mentioned, to narcotize American brains and make dullards of the rising generation, it is certainly a wise economy to produce them at home, and so save duties and the cost of transportation. In case, too, of a war with China, there would be no danger of a cutting off of the supply of tea and opium, so that the devotees of those drugs could go on poisoning themselves as contentedly as though our "celestial" enemies were our warmest friends.

If some ingenious Yankee will invent a variety of tobacco plant which will produce cigars already rolled, and "fine cut" ready chopped, the climax of felicity for the lovers of narcotism will be reached.

Blood-Drinking.—The following I clip from the *Boston Herald*:—

"The practice of blood-drinking for the cure of consumption and other wasting diseases is severely commented on by many medical journals; and cases are adduced as evidence of the evil of the practice. It is said that it induces an inordinate appetite for blood, which will be appeased by nothing else, and which results in a horrible form of insanity, to which the name of Aaromania has been given. The victim of this mad passion for blood will, if the fresh blood of animals is not attainable—it is said—suck the blood of sleepers to whom he may have access. How much truth there is in this, we do not know; but observation and the experience of ages has established the fact that almost all, if not all, the dietary and other rules given for physical guidance through Moses to the Jews had their hygienic meaning. Blood was especially prohibited, and with good cause. It does not assimilate when taken in any quantity into the stomach, and the revulsion felt to it when the practice is first entered upon should be regarded as significant of its unsuitableness as a form of diet. The blood cure is destined to have a short popularity." M. Wood.

A New Adulteration of Sugar.—We clip the following item from the Boston *Journal of Chemistry*:—

"A case of adulteration of sugar, recently tried at Marseilles, has excited a good deal of attention there. Fraud of the kind had long been suspected by the customs officials, and the cargo of sugar in the present case was from Reunion. The Reunion sugars, of brown hue, are very rich in saccharine matter, and well suited for mixture. It was at first thought that the sugar had been mixed with pounded bricks and sand; but on analysis the added matter was found to be slag (a sort of opaque glass formed in the working of various metals, or vitreous lava from volcanoes) along with sand; and a "saving" of about a cent a pound was expected from the operation. The slag has a bright granular fracture, so that it makes a very good imitation of sugar; the sand was added to make up the weight."

Tomatoes.—A very few individuals still cling to the absurd notion that tomatoes "cause cancers," "act upon the liver," produce salivation, and possess other obnoxious properties. Such ideas are unfounded. The tomato is a wholesome article of food.

THE

HEALTH REFORMER

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J. H. KELLOGG, M. D., EDITOR. TERMS, $1.00 A YEAR.

Tobacco Reform.

IT is gratifying to all who are interested in the progress of genuine reform to see the increasing interest which temperance reformers are manifesting in the subject of tobacco reform. Probably the persistent efforts of that enthusiastic anti-tobacco reformer, the late Rev. Mr. Trask, have done much in calling attention to this subject. Whatever may have been the origin of this encouraging feature of the temperance movement, it is certainly a step in the right direction. No temperance platform is at all complete without a strong anti-tobacco plank as one of its fundamental principles.

For several years the Methodist Episcopal denomination have been turning their attention toward this crying evil in a manner worthy of high commendation, as promising something effective in the future. In their annual State Conferences, the subject has been on several occasions discussed, and resolutions condemning its use as harmful have been repeatedly passed. The leaders in this reformatory movement have shown sound wisdom in first attacking the evil among the clergy. Any attempt at reform among the people would evidently be quite useless while they still received their religious teaching from mouths stained with tobacco juice, listened to sermons inspired by the stimulus of nicotine, and had their religious fervor excited by prayers uttered with breaths redolent with the fumes of the filthy weed. It is reported that at the last General Conference held by the M. E. Church, in Baltimore, Md., a resolution was passed which condemned the practice of tobacco-using in the strongest terms, and made the use of tobacco a disqualification for entering the ministry. It is to be hoped that this movement will be pushed forward until such a reform is effected as will purge every religious body of tipplers, rumsellers, and tobacco-users.

The following interesting paragraphs are from the pen of Rev. W. E. England :—

"The action of the late General Conference of the M. E. Church, held in Baltimore, was significant in reviving something of the opinion of former times on the *tobacco question*. With the views of Wesley we are all supposed to be acquainted. But long before his day it was considered a grave moral defect to use tobacco under certain circumstances. In Transylvania, so early as 1689, an ordinance was published threatening those who would plant tobacco with confiscation of their property. There was a time when the Grand Duke of Moscow and the King of Persia forbade its use under penalty of the loss of the nose, and in some cases penalty of death.

"The Empress Elizabeth prohibited its use in the churches, and for the same reason Pope Urban VIII. was so cruel as to excommunicate all who used it in the churches. If the pope were in charge of some of our churches, he would save many a trustee and the poor sexton from temptation to swear over the pollution of the sanctuary."

Hygienic Remedies.

SITZ BATH.

THE sitz bath, also known as the hip bath, is one of the most useful baths employed in hydropathic treatment. Its utility was fully recognized by the earlier practitioners, who sometimes kept their patients so long in the bath that they became almost literally water-soaked, and were so numb from the long-continued application of cold water as to possess almost no external sensibility. It is said that in some cases the skin could be rubbed off in the attempts to obtain reaction, without the patient's knowledge.

For this bath a common tub may be used,

by placing a support under one edge to elevate it two or three inches; but it is better to use a tub made for the purpose, which should have the back raised eight or ten inches higher than the front, to support the back, the sides sloping gradually so as to support the arms of the bather. The bottom should be elevated two or three inches. The depth in front should be about the same as that of a common wash-tub.

Enough water is required to cover the hips and extend a little way up the abdomen; four to six gallons will suffice. Any temperature may be employed, being suited to the condition of the patient. The duration of the bath will also vary according to circumstances. A short cool bath is tonic in its effects, like all short cool applications; a more prolonged one is a powerful sedative. The hot sitz is very exciting in its effects if long continued. The warm bath is relaxing. The hips and trunk should be well rubbed during the bath by the patient or an attendant. The bather should be covered with a sheet or blanket during the bath. If it is desirable to produce sweating, several blankets may be used.

The sitz bath should seldom be taken either very hot or extremely cold. A very good plan for administering it, and one which will be applicable to most cases, is this: Begin the bath at 92° or 93°. If a thermometer is not at hand, pour into the bath-tub three gallons of fresh well or spring water, and then add one gallon of *boiling* water. This will give the desired temperature. After the patient has been in the bath ten minutes, cool it down to 85°, which may be done by adding a gallon of well water. Continue the bath five minutes longer, then administer a pail douche or spray, at about 85°, and wipe dry, as directed after a rubbing wet-sheet.

The sitz bath is useful for chronic congestions of the abdominal and pelvic viscera, diarrhea, piles, dysentery, constipation, uterine diseases, and genital and urinary disorders. In treating female diseases it is an indispensable remedy. It is very valuable in various nervous affections, especially those which immediately involve the brain.

There is no better remedy for a cold than a very warm sitz bath taken while fasting, and just before retiring. It should be continued until gentle perspiration is induced.

The sitz may be converted into a general bath by rubbing the whole body with the wet hand while in the bath, and may thus be made to answer the purposes of the half and shallow baths.

LEG BATH.

For this bath a vessel deep enough to receive the limbs to the middle of the thigh is required. The bath may be taken at any desired temperature, but is usually employed somewhat cooler than baths which involve the trunk of the body. It is a powerfully derivative bath, and is found very useful to prevent wakefulness in nervous persons, and to relieve cerebral congestion in epileptic patients. It is especially applicable to chronic ulcers of the leg, swollen knees and ankles, and limbs which have suffered by exposure to severe cold. It gives much relief in gout; there is no danger of causing a metastasis of the disease by the application of this bath.

FOOT BATH.

Any vessel sufficiently large to receive the feet, and enough water to cover them to the ankles, is suitable for this bath. The feet should be rubbed during the bath. If the temperature is cool, only an inch or two of water should be employed.

The *walking foot bath* is an excellent remedy for cold feet. It consists in walking in shallow water five or ten minutes.

The alternate hot and cold *foot bath* is another valuable remedy for cold feet, and is a certain remedy for chillblains. It is given thus: Place the feet in hot water—100° to 110°—three or four minutes. Then withdraw them and plunge them quickly into a a bath of cold water—60° or less. After two or three minutes, restore them to the hot bath. Thus alternate three or four times, and conclude by dipping the feet quickly into cold water and wiping dry. This bath produces most powerful reaction.

The foot bath is applicable in the treatment of headache, neuralgia, toothache, catarrh, congestion of abdominal and pelvic organs, colds, and cold feet. It is very useful as a preparatory for other baths, and as an accompaniment of other local applications.

THE belly is chains to the hands and fetters to the feet.—*Persian Proverb.*

Aristocratic Vermin.—Doubtless not a few of those very refined and fastidious people who spend many hours in the application of all sorts of lotions and other compounds to the face and hands for the purpose of beautifying those portions of the skin exposed to view—while neglecting as persistently those parts of the skin protected from observation—would be very much surprised to learn the true condition of the unwashed portions of their cutaneous covering. They instinctively shrink with disgust from the sight of a vermin-covered beggar, in whose cuticle burrows the *acarus scabiei* (itch-mite), while troops of larger beasts are racing through his tangled locks and nibbling at his scaly scalp. It is possible that many a fair "unwashed" would faint with fright if apprized of the fact that her own precious covering is the home of whole herds of horrid looking parasites which so nearly resemble the itch-mite as to be at least very near relatives, perhaps half-brothers or cousins. The name of this inhabitant of skins unwashed is as formidable as the aspect of the creature, though it does not require a microscope to display its proportions, as does the latter; scientists call it *demodex folliculorum*.

The *demodex* makes himself at home in the sebaceous follicles, where he dwells with his family. Here the female lays her eggs and rears her numerous family, undisturbed by the friction of any flesh-brush, and only suffering a very transient deluge at very long intervals, if such a casualty ever happens. In studying the structure of these little parasites, we have found several tenants occupying a single follicle, pursuing their domestic operations quite unmolested by any external disturbance.

The *demodex* has been transplanted from the human subject to the dog; and it is found that the new colony thrives very remarkably, and soon produces a disease apparently identical with that known as "mange."

We have not space to describe in detail these savage little brutes, with their eight legs, armed with sharp claws, bristling heads, sharp lancets for puncturing and burrowing into the skin, and their powerful suckers for drawing the blood of their victims. We only care to impress upon the mind of the reader the fact that neglect of bathing and friction of the skin is sure to encourage the presence of millions of these parasites, and that the only remedy is scrupulous cleanliness of the whole person. Like their relatives, the itch-mites, they do not thrive under hydropathic treatment, and are very averse to soap and water. The best way to get rid of them is to drown them out. They do not produce the irritation which characterizes the presence of the itch insect, so that this evidence of their presence is wanting. But they are sure to be present in a torpid, unhealthy, unwashed skin, no matter how delicate or fastidious its possessor.

Modern Neglect of the Bath.—The most celebrated physicians, from Hippocrates down to Galen, Celsus, Boerhaave, and a host of more modern physicians, have agreed in eulogizing the bath as an invaluable means of preserving the health. Notwithstanding this fact, it almost seems that as civilization and enlightenment have advanced, the importance of the bath has been increasingly disregarded. The magnificent public baths of the Romans were neglected as that empire declined, until they were finally destroyed. Michelet, a historian of some note, tells us that for a thousand years during the Dark Ages the bath was unknown in Europe. This fact alone is in his opinion sufficient to account for the terrible plagues and pestilences of that period. A modern writer declares that in Spain the religious instincts of the people have become so perverted that it is considered sacrilege for a woman to bathe more than once in her life, which is upon the eve of her marriage. In more enlightened countries, it is to be hoped that the condition of the feminine cuticle is not quite so bad as that; but another writer, an Englishman, asserts that a large proportion of his countrymen "never submitted themselves to an entire personal ablution in their lives, and many an octogenarian has sunk into his grave with the accumulated dirt of eighty years upon his skin." American customs in this respect are not much better than the English; but it is gratifying to know that a very perceptible improvement is becoming evident in both countries. Our intercourse with Oriental nations and barbarians has taught us wholesome lessons in the care of the person. There is scarcely a sav-

age tribe to be found in the deepest jungles of tropical Africa the members of which do not bestow more attention to a preservation of a clean and healthy skin than the average American or Englishman.

Progressing.—A writer in the *Practitioner*, an eminent medical journal, has discovered that careful nursing and feeding are the most important measures to be employed in the treatment of tyhoid fever, medicines of any kind being rarely required, and when not required, worse than useless. Under this treatment he finds that diarrhea occurs very infrequently, and is then easily checked, while other more serious affections of the bowels do not occur at all, or very rarely, at least.

This opinion is now held by nearly all of the more scientific members of the medical profession, and it is to be hoped that a mode of treatment in harmony with these views will soon become fashionable, for in no other way can the great mass of routine practitioners be induced to adopt it.

PEOPLE'S DEPARTMENT

Devoted to Brief Discussions of Health Topics, Individual Experiences, and Answers to Correspondents.

A Letter from London, England.—We are very much pleased to receive the following letter from the secretary of the London Dietetic Reform Society, a branch of the Vegetarian Society, a sketch of which was published last month. We have been greatly interested for some time in noticing the progress of health reform among our vegetarian friends in the "Old Country," and are very glad to be able to present to our readers this communication from one of their number. We hope to receive frequent contributions from the writer, who is now the authorized agent of the REFORMER for London, Eng.

"Sir: I thought a letter from the Old Country would not be amiss to your readers, and therefore I send a short communication. Health reform is now attracting much attention, and I will say a few words about it under various headings.

"*Sanitary Reform.*—This is the fashionable phrase, and under it is included all which we might call 'national health reform' as opposed to 'individual hygiene.' Many interested in this branch pay subscriptions to various societies, and do little else. Perhaps the 'dry earth' system should be mentioned in this connection, for it is supplanting the 'water closet' so long used.

"*Dietetic Reform.*—We have now several societies advocating vegetarianism more or less advanced. The Vegetarian Society publishes a monthly at five cents a number, and is doing much good. In Newcastle, Liverpool, and London, are Dietetic Reform Societies connected with the head society at Manchester. Vegetarian dinners are provided at some towns, and occasional vegetarian banquets are held.

"*The Temperance Cause* is progressing. A Medical Temperance Society is now formed, and ought to do great good. A temperance hospital is an accomplished fact, and is doing well.

"*Various.*—The anti-tobacconists are still at work. I think they want to get more facts. The same with the anti-vaccinators. Mr. Pitman has been imprisoned for not having a child vaccinated.

"I will send no more now, but hope to write again. W. A. CLARK."

A Candid Acknowledgment.—"E. E. B.," whose communication respecting certain views advocated by this journal—which he then regarded as extreme—was answered at some length in the July number, sends us the following ingenuous acknowledgment of the truth of our positions as he views them at present:—

EDITOR HEALTH REFORMER: I no longer regard your views respecting the use of swine's flesh as ultra or extreme. To be as extreme as truth is not a fault, but a virtue of the highest order; and beyond this you do not go. I am *now* fully persuaded in the matter referred to. If I have taken the

place of teacher when that of learner more properly belonged to me, I hope to be more careful to avoid a like mistake in the future. I am at present thoroughly converted to the doctrine and practice of health reform, and am quite enthusiastic upon the subject. I have abandoned the use of pork and lard altogether, as well as all other unwholesome articles of food and drink. I eat but two meals a day, and yet I am stronger in every limb than I have been for a score of years. My appetite is so good that I enjoy the plainest food better than I formerly did the richest and most sumptuous fare. But the influence upon the mind of this healthful, temperate living far surpasses the benefits it brings physically. Buoyancy of spirit, cheerfulness, and sweet content are among the fruits of Christian self-denial and temperance, whether learned in the school of health reform or the New Testament. I am done with drugs, bitters, and stimulants of all kinds, and am proving by experience that pure, good, soft water is the best of medicines. I feel that I am indebted to the HEALTH REFORMER, mainly, for the valuable information I have obtained in this needed reform, as well as for the great improvement in my health. The tracts and "Healthful Cookery," which I ordered, have been received and read to profit. I hope, sometime in the future, to have the means and opportunity to help scatter broadcast these health leaves for the benefit of suffering humanity. E. E. B.

One of the most powerfully convincing evidences of the truth of the great principles of health reform is the fact that those who candidly investigate them, and make a fair and consistent practical trial of the better way pointed out in them, invariably decide, as our correspondent has done, that they are true. We never expect any other result from such an investigation; for our fundamental doctrines are drawn from the book of nature, and how could they be otherwise than true?

Vesuvius for Invalids.—Dr. Charles F. Zimple, of Naples, Italy, sends us an interesting account of the salubrious effects upon invalids of the climate of the immediate vicinity of that famous old crater, Mt. Vesuvius. He also calls attention, to use his own words, to "the medical peculiarities of Suedia, a village of the valley of the Orontes, one hour's journey above the spot where it discharges itself into the Mediterranean, and six hours' journey west of Antioch, which consists in the speedy cure of consumption even in the second stage, and sometimes arresting the disease in the third stage, as Dr. Yates, who was there before me, experienced in the case of his wife."

Dr. Z. also mentions "the village of Eden, about half way up Mt. Lebanon, above Tripolis," as possessing the same desirable peculiarities, though it is "only suitable for a residence during some few months of the summer."

The Dr. remarks in reference to Mt. Vesuvius, "After a residence of some months, and many observations and medical studies, I have arrived at the moral conviction that the southern slope of Vesuvius, or that portion of it which is exclusively above the town of Torre del Greco, at a part which is well sheltered from the north and west winds, is beyond all doubt, taking every circumstance into consideration, the one spot of our globe which offers to invalids advantages so unique as not to be found in any other locality."

These superior merits Dr. Z. attributes, in part, to the dryness of the ground in this locality, the soil consisting wholly of lava, and being warmed and dried by the internal fires of the volcano; but he seems to give to the character of the air of this region the greater prominence as a therapeutical agent, as may be gathered from his own words, which we quote as follows: "The whole air is impregnated with the medicinal substances which emanate from the crater of the volcano, sulphur, arsenic, iron, etc." Reasoning from the supposition that these substances "are the most essential elements of what is necessary for the support of the human frame," an assumption which he takes to be already established and not requiring demonstration, the doctor has "arrived at the conviction that living in such an air must promote the cure of most diseases."

Dr. Zimple remarks that he has never known any one to visit this locality for health purposes without receiving benefit; and he recommends those who may wish to avail themselves of its advantages to visit the establishment of Mr. Ropolo, which he describes as well located, and a very pleasant, agreeable, and economical stopping-place.

From the cases cited by Dr. Zimple, we have no doubt that the localities which he mentions are in many respects very desirable resorts for invalids, but we could not, of course, agree with him respecting the value of air laden with arsenical and sulphurous fumes from the smoking crater of Vesuvius. It hardly seems possible that the same agents which no doubt aided in the destruction of the citizens of Pompeii and Herculaneum centuries ago should be found serviceable,

healthwise, to modern invalids. Nevertheless the doctor's reasoning is correct, granting his premises. We are glad to hear from him, and shall be pleased to have him favor us with another contribution should he feel disposed to do so. Our limited space has obliged us to present this partial abstract of his paper instead of giving it entire.

Inconsistencies of Some Would-be Hygienists.—MR. EDITOR: I know some folks who make some pretensions to be hygienists, but seem to think that if they read the REFORMER a little occasionally, and eat graham bread, as they call it, once in a while, even though they mix the flour—after sifting all the bran out of it—with sour milk and saleratus or soda, they are living hygienically; while the fact in the case is they are in all other respects living just as unhygienically as those who make no pretensions to hygiene at all; and, consequently, are just as often sick as any of their neighbors who do not pretend to be hygienists.

Hence, on soliciting some of my neighbors to subscribe for the REFORMER, I am instantly referred to these would-be hygienists as an excuse. Thus you see that such hygienists are but stumbling-blocks in the way of health reform. And when any one of their family gets sick, the very first thing they think of is to send a dispatch for a drug doctor and have the patient dosed with poisonous drugs, and then if the patient dies, they lay the blame on Providence. Especially if the patient happens to be a child, they say, "The good Lord loved it so dearly that he made it so sick that it had to die, and he took it away, unto himself."

Oh, shame! Blame the Lord for killing your child when, in reality, you have yourselves been instrumental in bringing about the dreadful calamity!

Let those, then, who make any pretensions to hygiene, strictly live it out, taking good care to make use of all true hygienic means as preservatives of health, and avoiding all things that may have any tendency to ill health. All half-way hygienists are only a sad hinderance to the cause of health reform.

A HEALTH REFORMER.

How Much the Doctor Knew.—A few weeks ago our little girl, now nearly four years old, was taken quite sick. Her sickness continued for several days. She apparently grew worse. Mrs. Canright did all she could for her with water treatment, and simple remedies; but, as the little girl still grew worse, she thought it best to consult a physician, to learn what the disease was. She called the best physician in the place. He came, felt of her pulse, looked at her tongue, carefully inquired of all the symptoms, and pronounced it settled typhoid fever. He left some powders to be given to her, which, of course, were soon put in the stove. Within a few hours' time a gathering in her ear broke, which was the end of her typhoid fever. This, of course, was the trouble all the time. She soon recovered.

This is a fair illustration, showing how doctors guess at what the trouble is, and then very knowingly deal out their doses accordingly, when probably, in a majority of cases, at least, they have not hit the trouble at all. Then, if the patient recovers, the doctor and the medicine are highly praised, unless, in some cases like the above, it is found out what the real disease was.

In this case, if we had given the poor child the drugs which the doctor left, in all probability they would have made the child really sick, and certainly they could have done her no good. D. M. CANRIGHT.

[The doctor was certainly very unwise to hazard a diagnosis after so cursory an examination; and the remedy which he prescribed was still more lacking in wisdom, even had his diagnosis been correct. Yet it will hardly do to dispense with doctors altogether, at least until the people are all medically educated. In this case the doctor was either careless or ignorant, or both; but this is not always the case; neither does it always happen, as in this case it did, fortunately, that the little patient has parents who know more than the doctor. Give the doctors their due, and put their poisons "in the stove."]

The Danbury Man's Experience with English Dinners.—One English dinner in the inexperienced American stomach will produce that night: Twelve cross-eyed lions; eight bears with calico tails; eleven giants with illuminated heads; one awful dog with twelve legs; and fourteen bow-legged ruffians chased by a host of piratical cauliflowers, mounted on saddles of beef roasted. Any respectable chemist will corroborate this statement.

Questions and Answers.

Tongue-tie.—J. J. M., Neb., says: "I would like your advice through the REFORMER in regard to my little boy. Although ten years old, he has never talked plain, and our neighbors think he is tongue-tied. His tongue

is not so long as some, but is not very short. Please give me your opinion about it, and if it would be safe to have it cut now."

Ans. We cannot advise you very definitely without further knowledge of the particulars of the case. If there is deformity of the tongue so great as to interfere with speech, the difficulty should be remedied, and the sooner the better. We would not advise an operation by an unskillful hand, as serious accidents, fatal hemorrhages in some cases, have resulted from unskillful operations for tongue-tie. Take the boy to a good surgeon before attempting any operation.

Dyspepsia—Uterine Disease.—Mrs. M. E. H. seeks advice through the REFORMER respecting her case. She suffers from constipation, tenderness over the liver, pain in the small of the back and between the shoulders, a feeling of oppression in the chest, headache with throbbing and heat on the top of the head, sore eyes, urine high colored with red sediment, uterine cramps, leucorrhœa, melancholy, and other disagreeable symptoms.

Ans. Probably your chief difficulties are dyspepsia, congestion of the liver, and uterine disease, which are sufficient to cause general debility and all the various symptoms of which you complain. You evidently need a thorough course of treatment at some good health institution, where you would learn how to take care of your health and make the most of your remaining strength. Careful attention to all the laws of health in eating, dressing, and all other respects, will alone suffice to effect a cure of your several maladies.

Goitre.—L. P. K., O., asks, Is a strict diet all you recommend for goitre?

Ans. By no means. Goitre is largely caused by want of sunlight, and a damp atmosphere. Hence, sun baths, and exercise in the open air, together with change of climate, in some cases, are the most essential elements of treatment. Electricity, also, as well as various local appliances, as bandaging, alternate hot and cold applications, etc., are of nearly equal service. The disease is often very obstinate, especially if allowed to become thoroughly established. It should receive prompt treatment and skillful management.

Climate for Weak Lungs.—E. C. inquires for a climate, locality, and occupation suitable for a young man who has weak lungs.

Ans. A cool, dry atmosphere, such as is found in the mountainous portions of Colorado and several others of the Western States and Territories, is said to be very beneficial to persons with weak lungs. Any legitimate occupation which will give plenty of out-of-door exercise which is not too severe, and will yield a fair compensation, is adapted to such a case as you mention.

Threatened Paralysis.—S. T. has for nearly a year been troubled with numbness of the extremities lasting for hours and then followed by a prickling sensation. During such attacks he can use his limbs very little. Was first troubled in this way after a severe fever during which he was treated by a physician who gave him arsenic, strychnia, quinine, etc., uses tobacco, and lives as people generally do. He inquires, What is the matter with me? and what can I do for it?

Ans. You are evidently suffering under some very serious derangement of the nervous system which may result in complete paralysis of the lower extremities if not attended to. Just where is the seat of the difficulty the symptoms you enumerate do not indicate. It is probably in the spinal cord. What you can do is very easily indicated. Stop using tobacco; cease to "live as people generally do," for most people are daily injuring themselves by improper diet and other bad habits of life; live hygienically in all respects, or as nearly correct as possible. If you do not improve rapidly, apply to a good health institute for treatment.

Production of Animal Heat.—W. J. R., Mo., says, There are several in this vicinity who wish to know whether the combustion by which the body is warmed takes place in the capillaries or in the lungs.

Ans. In the capillaries of the general circulation, and not in those of the lungs, as taught by Prof. Leibig many years ago.

J. H. G., N. C.: Warm sitz baths are indicated for your difficulty. Consult Webster's Unabridged for the pronunciation of the words you mention. We do not keep gem pans for sale. You can now get them of almost any first-class hardware merchant in any large city. You can get patty-pans, at least.

H. L. C., D. T.: Home-made vinegar is essentially the same as that bought at the stores, no matter how the fermentation is produced. Use as a substitute for vinegar, lime or lemon juice, or verjuice, which is made by expressing the juice from crab-apples, green sour apples, or unripe grapes. It may be preserved by canning.

FARM AND HOUSEHOLD.

Devoted to Brief Hints for the Management of the Farm and Household.

A Cheap Paint.

MANY a farmer lives in an unpainted house which has become gray with age, surrounded by weather-beaten fences and unpainted sheds. The occupant of such a house cannot help appreciating the contrast between the cheerful aspect of his neighbor's well-painted buildings and fences and his own cheerless premises; but he sighs that he cannot afford the necessary expense, and contents himself as best he may with his unpleasant surroundings. Such an one will appreciate the value of the recipe which we give below, and which is said to almost equal the best white paint in appearance—though very cheap—and to be very durable. It was sent out by the U. S. Treasury Department. Every man who has an unpainted shed or other building on his premises should try it without fail.

"Slake half a bushel of unslaked lime with boiling water, keeping it covered during the process. Strain it, and add a peck of salt dissolved in warm water, three pounds of ground rice put in boiling water and boiled to a thin paste, one-half pound powdered Spanish whiting, and a pound of clear glue dissolved in warm water; mix these well together, and let the mixture stand for several days. Keep the wash thus prepared in a kettle or portable furnace, and when used put it on as hot as possible with either painters' or whitewash brushes."

Dangerous Vails.—Ladies in traveling at this season of the year frequently wear vails of gauze, most commonly light green in color. It appears that the use of these is not wholly safe; as a case has lately been published of a child, in Troy, N. Y., whose face while asleep was covered with a green vail to protect it from flies. The infant managed to get the fabric in its mouth, sucked it, and died shortly afterward, with all the symptoms of poisoning.—*Scientific American.*

Public Roads.—It is a very common mistake to suppose that the public roads are owned by the town. A town, by our Connecticut law, does not own anything in the highway. The public own the right of passing over it, and the soil itself belongs to the owners of the adjoining land, just as much as the adjoining land belongs to them. They own on one side of the fence just as much as on the other. If there are fruit trees on the highway in front of your farm on your side of the middle of the road, they belong to you; the fruit belongs to you, and the timber belongs to you; the grass upon it belongs to you; and if you cultivate a patch of it, the crops you raise upon it belong to you.—*Secretary Gold.*

Kindlings.—Kindling a fire on a bitter morning in winter, when the alternative lies between dressing in the cold or creeping back to bed until the room is warm, is a thing that wants to be done with expedition and certainty. There is neither time nor inclination to scurry around after kindlings, and the oil-can means involuntary suicide. The best things are corn cobs. Take ten bushels of them, soak them a few minutes in hot water in which saltpeter has been dissolved in the proportion of one pound to six gallons, dry them well and have them handy. Chuck half a dozen underneath, pile on the wood, touch them with a match. It will all be right.

System.—Many housekeepers make a mistake in having no established system of doing their work. They worry and are wearied far more than is necessary, because they do not plan the work of the week judiciously, when, if each day had its allotted duties—washing, ironing, cleaning, mending, sweeping, cooking, and then the rest on the Lord's day—they would be astonished at the amount of leisure they would find for sewing, reading, writing, and the music which so many often neglect when the days seems full of other work.

Roadside Weeds.—Permitting noxious weeds to ripen their seeds in the public highways is far too generally practiced, and is a public nuisance which should be abated speedily. The seeds of these "public weeds" are often caught up by passing vehicles and distributed over the country. This is well known to every farmer, and still thousands of patches of the vilest of weeds, such as Canada thistle, clot-bur, and toad-flax, are allowed to grow undisturbed by the roadside year after year,

adjacent to land owned by men of whom better things are naturally to be expected. It is worth in appearance all it costs to mow the roadsides and keep them clear of weeds; but, in addition, the dissemination of noxious weed seeds makes a neglect of this practice a positive injury to the country for miles around, and it is at least a question worthy of discussion, if a man has a moral right to permit weeds likely to injure the property of his neighbors to ripen their seeds without making an effort to prevent it.—*Sun.*

Cheap Walks.—How to make walks about the house hard without much cost, is a question which we have often asked ourselves without ever receiving a satisfactory reply. Coal ashes, sand, such as is used for mortar, and clay in the proportion of rather more sand than coal ashes—the difference made up with the clay—all well mixed together and laid at least four inches deep, will become very compact and hard. Macadamized paths are to be recommended in point of cheapness. Collect all the stones you can. Place the large ones in the bottom and fill in with the smaller ones, covering, as above, with sand, ashes, and a little clay.—*Moore's Rural.*

Removing Mildew.—To take mildew from linen, mix soft soap with powdered starch, half the quantity of salt and a piece of lemon, and lay it on both sides with a paint brush. Let it be in the open air—on grass is preferable—till the stain is removed.

Seed Corn.—A farmer states that he planted five rows of corn with seed taken from the three inches below the top of the ear, rejecting the imperfect grains at the extreme point; then five rows taken from the middle and base of the ear, rejecting the imperfect grains at the butt. The result was that the five rows planted from the middle and butt of the ear ripened about two and a half weeks before the other rows, the corn of the former being better eared, and filled to the end of the cob.—*Farmer's Monthly.*

Barley Water.—Boil two table-spoonfuls of best pearl barley in a quart of water for two hours. Strain through a fine cloth. Use this instead of pure water or lime water to dilute cows' milk for infants.

Graham Pie Crust.—Pour boiling water upon graham flour in quantity just sufficient to make a stiff dough. Roll thin with plenty of flour upon the board, and with little kneading. A crust made in this way will be found to be as tender and toothsome as one could well desire. Pies made with crusts of this kind may be eaten with impunity even by dyspeptics, provided, of course, that what is placed between the crusts is wholesome.

Tomato Soup.—Scald and peel good, ripe tomatoes, add a little water, stew them one hour, and strain through a coarse sieve; stir in a little flour, or crumb in toasted biscuit, and then boil five minutes.

Stewed Tomatoes.—Scald until the skins wrinkle, and then peel. Slice thin, and stew with a moderate heat for half an hour. Thicken with rusk, graham bread crumbs, pounded crackers, or oatmeal. Grated green corn is another excellent material for thickening. Cook a few minutes longer after adding thickening. Tomatoes are richer if cooked two hours.

—To prevent the cracking of glue by heat or extreme dryness, the addition to the solution of some calcium chloride is recommended, which retains sufficient moisture to obviate this inconvenience. Thus prepared, glue can also be used upon glass and metallic surfaces.

—For mending valuable glass objects which would be disfigured by common cement, chrome cement may be used. This is a mixture of five parts gelatine to one of a solution of acid chromate of lime. The broken edges are covered with this, pressed together, and exposed to sunlight, the effect of the latter being to render the compound insoluble even in boiling water.

—Small stables and narrow stalls are terribly severe on the feet and legs of horses, unless the building can afford a dry room where a horse can walk around, lie down, and roll over. They are not half so comfortable or healthy as the pastures, and should be avoided by all hostlers.

—A new mode of water-proofing woolen materials consists in boiling 4½ ozs. white soap in 2½ gallons water. Separately dissolve 5¾ ozs. alum in 2½ gallons water. Heat these solutions to 190° and pass the fabric through the soap bath and afterward through the alum solution. Dry in the open air.

—The quickest way to clean a steel knife is to cut a potato in two, dip one of the fresh surfaces in the ordinary brick-dust used in scouring, and rub the blade with it.

POPULAR SCIENCE.

In this Department Will Be Noted the Progress of Science, New Discoveries and Inventions.

The Doctrine of Evolution.

WE have all no doubt read those ingenious, not to say amusing, speculations in which some entomologists and botanists have indulged with reference to the mutual relations of flowers and haustellate insects. Geologically, the facts oblige us to begin with Cryptogamous plants and mandipulate insects, and out of the desire of insects for non-existent honey, and the adaptations of plants to the requirements of non-existent suctorial apparatus, we have to evolve the marvelous complexity of floral form and coloring, and the exquisitely delicate apparatus of the mouths of haustellate insects. Now when it is borne in mind that this theory implies a mental confusion on our part precisely similar to that which in the department of mechanics actuates the seekers for perpetual motion, that we have not the smallest tittle of evidence that the changes required have actually occurred in any one case, and that the thousands of other structures and relations of the plant and the insect have to be worked out by a series of concurrent evolutions so complex and absolutely incalculable in the aggregate, that the cycles and epicycles of the Ptolemaic astronomy were child's play in comparison, we need not wonder that the common sense of mankind revolts against such fancies, and that we are accused of attempting to construct the universe by methods that would baffle Omnipotence itself, because they are simply absurd. In this aspect of them, indeed, such speculations are necessarily futile, because no mind can grasp all the complexities of even any one case, and it is useless to follow out an imaginary line of development which unexplained facts must contradict at every step.—*Prof. Dawson.*

The Universe Composed of Hydrogen.

THERE are many eminent chemists, Professor Cooke among the number, who believe that, instead of there being 64 elements, there is but one. That this one universal element assumes more than 60 different forms (according to the velocity with which the atom moves), which constitute the molecules, or their arrangement, or number, is not more wonderful than the changes which some of our so-called elementary bodies suffer in their allotropic modifications. Sulphur, phosphorus, and carbon are, to a certain extent, protean; but they are distanced in the allotropic race by isomorphous hydrocarbons. Dr. Wurz defines organic chemistry as the chemistry of the hydrogen compounds, for he believes that it is protean hydrogen, with its ever-changing atomic volume, that makes organic chemistry so complex. If we combine the two theories, that all matter is but various forms of one simple body, and that hydrogen is the most protean of our so-called elements, we arrive at the conclusion that the universe is composed entirely of hydrogen.

Curious Facts.—The following curious facts of natural history are cited by Mr. Darwin in a recent work:—

"Color-blindness is often associated with a corresponding inability to distinguish musical sounds. White cats, if they have blue eyes, are almost always deaf. Here the cause is supposed to lie in a slight arrest of development in the nervous system connected with the sense-organs at the stage of the closed eyelids, as the iris in kittens during that period has been found to be of a blue color. Finally, there is some authority for the old belief that in man (as certainly in animals) there is a connection between complexion and constitution. It has been shown, for instance, that a relation exists between liability to consumption and the color of the eyes, hair, and skin. It is even affirmed that in the French army which invaded Russia, soldiers having a dark complexion, from the southern parts of Europe, withstood the intense cold better than those with lighter complexions from the north. As to pigs and sheep, there is no doubt that the white sorts are poisoned by various plants which prove innocuous to the black species. With cattle, independently of the action of any poison, cases have been published of cutaneous diseases affecting every single point which bore a white hair but completely passing over other parts of the body. White terriers suffer most from the distemper, and white chickens from the gapes. Analogous facts have been observed with plants. White onions and verbenas are the most liable to mildew, and in Spain the pale-fruited grapes suffer most from the vine disease. Red wheats likewise are hardier than white. All this would indicate that some grave constitutional difference must be correlated with color.

News and Miscellany.

—Speaker Kerr died on Aug. 20.

—Russia could muster an army of 2,300,000 men in the event of a war.

—Capt. Boyton contemplates a swimming trip around the world.

—Parisians are now eating horses, asses, and mules at the rate of about twenty-five per day.

—French statisticians report that the war and the Commune cost France 589,000 lives.

—The six of Fenian prisoners who escaped from Australia have arrived in New York.

—The new postal law allows printed matter, with the exception of unsealed circulars, to be sent at the rate of one cent for two ounces.

—In the case of the American Bible Society at the Exhibition may be seen sample copies of the Bible in more than two hundred languages.

—Woodhull and Claflin's Weekly has failed. It is stated, also, that Victoria has dismissed Col. Blood, and gone home to live with her mother.

—Generals Crook and Terry have joined their forces, and are moving upon the Indians as rapidly as practicable.

—England still maintains a threatening aspect toward China, her minister having ordered troops to that country from India.

—It is stated that horsemen in England are making a successful use of electricity in taming and breaking horses.

—According to the London *Times* the gold in the vaults of the Bank of France at the present time exceeds five hundred tons in weight.

—A company of 600 Icelanders recently passed through Minnesota en route for the northern coast of Lake Superior. They would not stop in Minnesota saying the climate was too warm.

—The official organ of the Chinese government, the Pekin *Gazette*, has been published for more than a thousand years. It is entirely made up of official notices.

—The first cables for the wire bridge across East River, which will connect New York and Brooklyn, were stretched over the tall towers on either side Aug. 14.

—Cases of poisoning have occurred from wearing rubber boots with green linings. Green seems to be an unsafe color under nearly all circumstances.

—Gymnastic instruction and exercise, so much neglected in this country, is obligatory in France, Sweden, Denmark, Austria, Prussia, and Switzerland.

—Frauds in the Treasury Department amounting to the enormous sum of $5,000,000 have recently been discovered. They were perpetrated several years ago.

—Two European nations have officially indorsed the practice of cremation by making provision for public conveniences for disposing of the dead in this way.

—A project is on foot in France for constructing a canal to connect the English Channel with the Mediterranean Sea. The cost is estimated at $13,000,000.

—A single grain of wheat, accidentally dropped in an English garden, produced sixty-three ears and three thousand grains, which is doubtless the largest yield ever known. It had good soil and cultivation.

—A German Swiss is reported to have discovered a similarity almost amounting to identity between the dialects of the Cheyenne and Comanche Indians and that spoken by the inhabitants of Canton Granbunden, Switzerland, which is there called Rome-pa-va. If true, here is a problem for the philologists.

—There are now established in the large cities, schools for the training of nurses. The New York and Boston schools require two years' study. The New Haven school requires fifteen months, and the school in Philadelphia a course of one year.

—Poland sends a very appreciative centennial address to the United States in which she makes a very pathetic reference to her own fruitless efforts for freedom during the same hundred years which have witnessed our successful career.

—New Jersey and Deleware are full of tramps who subsist by begging and theft. Many atrocities are committed by them in localities where their numbers are sufficient to enable them to defy the local authorities. Some of the railroads have found it necessary to employ special policemen to protect their trains.

—Aug. 7, Mr. Francis Hanford, principal of one of the high schools of Chicago, was fatally shot in that city by Alexander Sullivan, Secretary to the board of public works. The provocation was a truthful representation by the victim before the city council of conspiracy against the interests of the city schools on the part of Sullivan and his wife.

—The partisans of the several candidates for the occupancy of the White House are inventing and discovering all sorts of vile stories about the opposition candidates. Such scurrilous language is used in some of the public prints that one is tempted to query whether nearly as much harm as good does not result from the unlimited freedom of the press allowed in this country.

—A "baby farm" was recently discovered and broken up in New York. The brutal woman who was proprietor of the institution evidently pursued a plan of systematic starvation. This evil reached very grave proportions in England a few years ago, and it is to be hoped that the vigilance of the Society for the Prevention of Cruelty to Children will quickly suppress its earliest appearances in this country. It is nothing less than deliberate infanticide.

—It is reported that a famine is prevailing in the northern provinces of China of so severe a character that thousands die of starvation daily.

Crops failed on account of the extreme drouth. No rain fell for nine months. Recent inundations have served to complete the destruction of what had been left by the drouth, and occasioned the death of 5,000 persons.

—The war of Turkey with the Servians still continues, but the latter are continually losing ground and cannot hold out much longer without foreign aid.

—A lively scene was enacted in front of the "*Tribune* grog-shop" the other day. For several hours a procession promenaded the sidewalk in front of the *Tribune* building, being headed by a young man bearing a placard on which were the words, "Shame on You." The proprietor became much enraged at this interference with his business, and retaliated by fitting out a procession of his clerks who followed closely in the wake of the other procession, with beer kegs mounted upon their shoulders. So great a crowd was collected by this curious spectacle that the police arrested all of the parties, and locked them up for disturbance of the peace.

Literary Notices.

PROCEEDINGS OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

This very interesting volume of nearly 500 pp. embodies the more important of the many interesting papers read before the several sections of this learned body at their meeting in Detroit, one year ago the present month. It contains many very valuable contributions to scientific knowledge. Among the more interesting is the address of Principal Dawson, in which the absurdity of certain evolutionary hypotheses is ably shown by one of the most distinguished of modern scientists. Prof. Dawson regards these hypotheses as very premature, and inadequate to account for the marvels of creation.

FANNY PERCY'S KNIGHT ERRANT. New York: National Temperance Society.

A story intended to impress the importance of taking the pledge of total abstinence. Many excellent ideas are presented in a somewhat pleasing manner, though in our estimation the book is rendered less valuable than it might otherwise have been by the evident disposition of the author to cater to that depraved taste which demands that moral instruction for children shall be conveyed through the medium of tales of courtship and matrimonial alliances. It may be fairly questioned whether books of this stamp do not do as much harm as good to young minds by exciting ideas and sentiments which ought to remain dormant until more mature years.

EXTRACTS FROM A SUMMARY OF A PAPER ON LIFE. By E. C. Seaman.

The author sets out with the assumption that "there is, in the material world, a vital element separated and distinct from all the other elements of nature—which is an organizing principle, and constitutes the essence of life, and causes the internal action of living organisms." This vital element, he claims, floats in the gastric juice and in the blood, in the chyle and in the *nervous fluid*, and pervades the flesh and all the solids of the living organism. He says, "The phenomena of life indicate that the vital element is very subtle, imponderable matter, in some respects similar to caloric and electricity."

Judging from his language, one would necessarily conclude that the propounder of this theory entertained somewhat antiquated notions of the nature of nerve force, electricity, and heat. Nothing is better demonstrated than that these and all other forces, as we know them, are not matter of any kind, but simply *actions* of matter. To speak of matter as an organizing principle, or of a principle as floating in the gastric juice, etc., is as absurd as it would be to talk of the specific gravity of an idea. We must, however, give the author credit for an original thought, and for rather unusual clearness in expressing the fact that "force is an inherent property of substance, and cannot exist independent of substance; that no combination of elements can produce a force not inherent in the elements themselves."

MICRO-PHOTOGRAPHS IN HISTOLOGY. By Carl Seiler, Philadelphia: H. H. Coates & Co.

This admirable publication fully meets the expectations of its friends. Each number is an improvement over its predecessor. The author and the publisher both deserve the highest commendation for the admirable manner in which they are fulfilling the promises made in their prospectus. The present number contains fine photographs of liver cells, a specimen of leukaemia of the liver, blood corpuscles of man and of the ox, and fat cells.

MEDICAL AND SCIENTIFIC TESTIMONY IN FAVOR OF A VEGETABLE DIET.

HOW TO BEGIN: Manchester, Eng., Vegetarian Society.

These two little tracts of 4 pp. each are admirable condensations of excellent truth. The first is wholly made up of quotations from eminent scientists in favor of vegetarianism and the principles upon which it is based. The second gives most wholesome instructions to those who are just beginning the practice of vegetarianism.

PUBLICATIONS RECEIVED.—Laws of the State of Michigan relating to Health.

Western North Carolina as a Health Resort. Asheville, N. C.: W. Gleitsmam, M. D.

THE Climatotherapy of Consumption. Baltimore: Sherwood & Co.

Theory of Medical Science. By W. R. Dunham, M. D., Boston: James Campbell.

Items for the Month.

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

☞ All will be interested in the very instructive article in this number by Mrs. White, whose writings are too well known to the readers of this journal to need commendation from us.

☞ Our readers will be pleased to find in this number, in place of "Centennial Exhibition Sketches," "A Glance at the Exhibition," a very entertaining article by an accomplished writer. We hope our readers will be favored with frequent contributions from the same facile pen.

☞ Persons residing in Great Britain who may wish to subscribe for the HEALTH REFORMER can forward their subscriptions through Mr. W. H. Clark, of London, who is our authorized agent, and secretary of the London Dietetic Reform Society. His address is, 9 Marda Vale, Edgware Road, London, Eng. Mr. Clark will also supply any of our works to those who may desire to purchase them.

☞ We recently had the pleasure of calling upon the well-known firm of S. R. Wells & Co. We found them very finely located, and doing a good business for these hard times. The interests of this publishing house are evidently not suffering so severely as its friends feared might be the case as the result of the death of Mr. Wells, those who have for years been most active members of the firm still continuing its management. During our short visit we learned some particulars concerning the death of Mr. Wells, which lead us to believe that we had been previously misinformed with reference to the circumstances of that sad event. His friends state that he was treated by a regular instead of a homeopathic physician, and that the resources of hygienic treatment were exhausted in his case. It is further stated that a hygienic physician of extensive experience decided, upon hearing a description of the first symptoms manifested in the case, that no treatment could have averted the fatal result. We are glad to place these statements before our readers for the purpose of removing any unjust impression that may have been received from any previous statement in this journal. We should remark, however, that such previous references to this case as have been made, were founded upon evidence which we had every reason to suppose was perfectly reliable.

PREMIUMS.— Correspondents often inquire, Why do you not offer premiums to your subscribers, as many other journals do? Publishers of cheap chromos have deluged us with circulars and specimens of their unartistic work, volunteering confidential information respecting the great gains which sundry publishers have made by offering with their journals a picture or two which they claim to be worth anywhere from $3.00 to $20.00, but which cost them only a few cents.

The publishers of the REFORMER have never had any faith in this plan of securing subscribers. People who subscribe for a paper merely for the sake of a fine picture, cannot be counted as reliable patrons. By working upon this plan, several journals have built up large circulations so rapidly that their growth has seemed almost magical, but this mushroom growth has vanished even more rapidly than it was attained. One religious journal which entered very largely into this chromo humbug lost 100,000 of its swindled subscribers within a year. Several journals which depended upon chromos have failed. Thousands of people are intensely disgusted with the millions of cheap prints which have flooded the country; and the publishers of this journal congratulate themselves that they have not contributed in any way to the production of this state of things.

We have intimated that the use made of chromos by publishers has been something of an imposition on the public. Subscribers have supposed that they were paying only for their journal, and receiving a valuable picture gratis; when, in fact, they have paid a liberal price for their paper or magazine, and for a very inferior picture a sum equal to several times its cost or real value. In other words, the much-vaunted liberality of publishers has amounted to little more than an ingenious scheme for selling worthless pictures.

Dr. Lyon's Hygeian Home, Springfield, Mo.