

GOOD HEALTH.



MENS SANA IN CORPORE SANO.

VOL. 20.

BATTLE CREEK, MICH., MAY, 1885.

NO. 5.

FILTH.*

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SOME one has said, "Dirt is matter out of place." Filth is matter never in place. I think it was Agassiz who said, "The civilization of a people is indicated by the amount of soap they use." Filth may be defined as foul matter—anything that soils or defiles. Really it is nastiness. I assert what I believe to be true, that filth is a great breeder of disease. Clear away accumulations of filth, disinfect the place, and purify the air, and you will help to rid the country of disease.

Filth is antagonistic to health, happiness, and longevity. It is the natural nidus for the perpetuation and cultivation of contagious diseases. In it they breed, fester, and live to finally break away from their bounds, and corrupt both human beings and domestic animals.

While I do not hold that all diseases come from germs floating in the air or emanating from previously diseased places, yet it is certain that all contagious and infectious diseases, and many non-contagious do arise from germs, which to a greater or less extent, find a home in filth. In recent years the microscope, in the hands of judicious and conscientious students, has opened to view many origins of disease and methods of propagation formerly unknown. It is too late now to frown upon, and expect to successfully deny, the conclusions of such studies. The researches in air and air-dust have shown that a menstruum for conveying disease germs from the breeding-places to healthy and untainted localities, there to taint and

corrupt the great health-giver and life-invigorator,—pure air,—is abundant. A current of air passing over a mass of filth cannot do otherwise than take up the noxious gases and disease germs. Laden with these, it passes on to spread them abroad. Just as on a summer day the breeze catches up the thistle-downs, left to ripen in some fence corner by a careless farmer, and carries them dancing on its way to form the germs of other thistles, which, in turn, will yield a hundred thistle-downs next year; so the breezes, passing over heaps of offensive, corrupt, decaying waste, cess-pools of festering filth, and masses of infected virulence, catch up the emanations, which go dancing on, unseen and uncared for, to light in some human soil, the throat and lungs generally, there to incubate and cause immense pain, and often death.

The Canada thistle has been fought in the States by fire and scythe, hoe and law, to keep it from taking root and spreading itself over our fair fields. Well would it be to fight filth with spade, fire, water, and law.

Is filth a necessary thing? Cannot society exist without it? Is it a Nemesis which must haunt our life even to our dying day? I would somewhat answer these questions by noting the origins of filth. Usually filth originates in acts of laziness, carelessness, ignorance, inattention to sound common sense rules of sanitation, and occasionally in willful, criminal intent. I cannot think filth is a blessing or a necessity. It is always an evidence that some one or more of nature's laws have been violated.

The places of filth are numerous. The catalogue is startling. Uncleaned and non-disinfected cellars, where remains of

* Read before the Indiana State Sanitary Society, Seymour, March 14, 1884.

vegetables are left to rot, and where vermin breed and multiply, and other vile things may thrive, are places of filth. So also the space in dwelling-houses between the ground and the floor, where neither sunlight nor ventilation ever come, and where cobwebs are spun, and mold and mildew abound, and noisome gases originate.

Unkept, poorly lighted, and ill-ventilated rooms, into which a clear ray of God's sunlight never comes; cupboards where bits of stale food are allowed to gather, and bread-mold to grow, and cheese-mites and nameless things poison the air; clothes-presses and closets, where soiled linen and garments unfit for even a tramp to wear are hung,—not to air, but to rot,—and cast-off boots and shoes become yellow or gray with the growth of foul things; cisterns uncleaned for a generation; foul wells, corrupted by swamp and marsh drainage and the more foul drainage from the door-yard; cess-pools near the house, where the family slops are thrown to fester and become reeking with live things, and germs of foul things, sending up odors more powerful than the balm of a thousand flowers, the drainage of which percolates through the soil to the contiguous well or spring, to be drunk by the family; privies that have not been disinfected or cleaned since the flood, into which the excreta of all manner of contagious diseases has been thrown, in some instances so situated that an extraordinary rain will cause them to overflow, washing out the contents upon door-yards, and down into cellars, cisterns, and wells, poisoning the water, and loading the atmosphere with dangerous matter,—these places of filth are connected with human residences either directly or indirectly, where, of all others, care ought to lead to cleanliness and purity. Life, health, and comfort are too precious to be trifled with by being compelled to live in or near filthy abodes.

There are other places of filth. Stables and barns may become so foul from remaining uncleaned that the stomach of a respectable cow will be nauseated, and the patient, submissive, abused jack is on the verge of vomiting. The Augean stables, cleaned by Hercules as one of his twelve labors, were sweet compared with some places for cattle and horses in our land. Sheds and barn-yards, the receptacles of all sorts of filth, contain and communicate diseases of malignant form to domestic animals. Our streets become immense recep-

tacles of filth tainted with hippuric acid, which on drying up becomes the street dust, that invades our houses, and is inhaled with the air, or falling on our food is eaten by us. The invisible things we breathe and eat, if made visible by the microscope, would almost prevent our eating at all, or induce an unusual habit of neatness.

There are some forms of industry that in a peculiar manner taint or load the air we breathe with unhealthy particles. I may enumerate some of them: Some forms of wood-working, shoddy-making, match-making, fine stone polishing and turning, some chemical works, silver smelting, etc.

The places of filth are so numerous I cannot begin to enumerate them. Most of them are results of carelessness and negligence. Some are the results of criminal, wanton negligence and indifference to others' comfort and health. We do not always do to others about our filth as we would they should do to us about their filth.

Having said this much regarding the origins and places of filth, I need to speak of filth purifiers. There are six specific purifiers of filth within easy reach of the public. This being the case, retention of filth is inexcusable. They are: 1. Fire; 2. Water; 3. Disinfectants; 4. Isolation; 5. Burying; 6. Sunlight. These taken together are the conquerors of filth. They kill disease germs. They cleanse away all forms of filth, and purify all that is impure and unwholesome. Of them I need to speak somewhat in detail:—

1. Fire. Much of filth can be burnt up, and so be put out of sight and out of ability to do harm. Heat possesses the power of destroying, if I recollect aright, all cryptogamic growths. All spores, seeds, and seed-vessels, all germs of disease, fall powerless before fire. It cleanses by destroying one form and establishing another form of matter. Ofttimes the heat performs such chemical changes in offensive substances as to expel their injurious qualities, and render them harmless.

A young man went to his sister's home to die of consumption. The sputa, which existed in abundance, was thrown out into the back yard on a bank of snow. Fresh snow fell, and the sputa was again thrown on the snow. For several weeks, this mass of covered filth and disease was accumulating. When the spring came, the snow gradually melted and left the accu-

mulation of sputa as a foul mass of reeking, repulsive, disease-breeding matter. The brother-in-law had to remove it. I do not now remember how he disposed of it. This brother-in-law in a short time was attacked with a disease which developed into phthisis. After lingering some months, he died also, possibly a victim to inoculation. But his sputa was carefully burned, and so far as that family was concerned, consisting of a wife and three boys, none died of phthisis.

Freezing does not kill disease germs. I doubt not Mrs. Judge Thompson, of Lawrenceburg, died from diphtheria contracted in eating of ice-cream made by a workman who was at the time suffering with the disease. His breath conveyed diphtheritic germs to the cream, so that of the entire company who ate of it, all but one were affected with sore throat in greater or less severity, and Mrs. Thompson died. Cold will not kill trichinæ, but heat will. Cold does not destroy animalculæ; for I have obtained them from ice and ice-water, but heat destroys them. Cold will not kill all cryptogamic spores, or destroy the mycelium, but heat will. Cold may hold in check some forms of filth, and prevent its doing as great and rapid injury as in pleasant, warm weather, but heat raised to four or five hundred degrees destroys nearly every kind of filth. Cold will not rely and certainly disinfect a ship on which yellow fever has been, as was evidenced by experiments under order of our Government a few years ago. After the vessel had been subjected to the lowest cold capable of being experienced in Boston Harbor, it sailed for the South. When nearing the tropics, yellow fever appeared on shipboard.

Some things in filth cannot be killed by drying up in a hot sun. I have taken the filth from a cess-pool, and allowed it to dry for weeks, under the impression that drying would destroy all animalculæ and cryptogamic germs. On this dried mass I have poured pure water, letting it stand for twenty-four hours, when on examination I found as beautiful and living animalculæ as ever I saw, and vegetable growths as fresh, and preparing to start into life just as if they had never been deprived of moisture. These dried-up, "dead" things only slumbered, and awaited the resurrecting power of moisture. Had that cess-pool residuum been burned, the animal substance and vegetable germs would have been destroyed. Burning is the great filth purifier.

In low, swampy, miasmatic localities, bonfires are great sanitary blessings. They create strong up-currents of air which bring in pure air from the higher localities. Malarial germs and pestilential air-dust are burnt up, and air not so pregnant with dust from higher localities brought in. The burning of a lot of old tumble-down, worm-eaten, soot-begrimed, filth-filled, pestilence-breeding houses in the heart of a populous city is not a curse, but a blessing.

2. Water is a purifier of some kinds of filth, though not of all. Where a current is strong enough to carry away filth to a larger body of water, and finally on to the sea, water may be relied upon as a valuable purifier. Water combined with soap or lye, and applied with a plentiful supply of muscular force, is wholesome in cleansing the filth of cupboards, closets, kitchens, utensils of domestic use, clothing, and the person. The scrubbing-brush and hot suds cleanses away a multitude of sins of nastiness. When I see the housemaid scrubbing well, I instinctively say, "Maiden, spare not that soap and water." Water does not destroy disease germs, unless it be very hot water, nor kill vermin, but it may dislodge them from their nests, and sweep them on to other localities where other means may destroy them, or so distribute them as to neutralize their virulence.

3. Disinfectants are intended to destroy disease germs in anything offensive, by attacking and killing their life, thereby rendering them inert and inoffensive matter. Some so-called disinfectants do perform this office quite well, while others are uncertain.

The public wants a cheap and abundant disinfectant, not dangerous to life or person, and easily applied. I know of nothing that fills the bill so fully as lime, or whitewash, applied profusely with a brush. It covers up many germs and encases more. It acts in some instances as a cauterizer; again by neutralizing the virulence of virus, in some cases it produces chemical changes, by which means unwholesome and dangerous gases are destroyed and wholesome gases formed and set at liberty. It has been demonstrated that around barns, stables, and places where sick or infected cattle have been, an abundance of whitewash liberally applied will drive away the disease, and form a very excellent protection for healthy cattle. Lime cannot be overestimated as a disinfectant of filth. It is so cheap and

as possible, and it will perform miracles. No other light, so far as is known, possesses such power as sunlight.

Clearing out and destroying filth is a meritorious act. Nothing conquers pestilence like it. It seizes upon the powers of contagion, and throttles them, despoils them of their terrors, chains them in their fury, kills them before they have an opportunity to work mischief.

Cleanliness is a virtue next to godliness, the ally of morality, and the partner of health. It is related in the life of Rev. J. B. Finley, the Ohio champion of Methodism, that he was holding a quarterly conference among the Wyandotte Indians. During the meeting one Indian made complaint against another. Finley asked what was the charge. The complaining Indian said he charged the other Indian with being too nasty and filthy for a Christian. "Look," said he "at his blanket and clothes. How dirty! Too nasty! Can't be a Christian and be so dirty as he is." When the accused Indian was asked what defense he had to make, he said, "I got no squaw. I can't be clean." The other Indian retorted, "That no excuse. Plenty of squaws around here. You ought to get one, and clean up." The Indian understood the degradation of filth.

"Clean up" should be a universal motto. It would be the doom of filth. It costs something to destroy filth and keep clean, but when it is done, one feels so much sweeter and happier that it pays a large per cent. Besides, immunity from disease, pain, and doctors' bills is by no means a small consideration. Most people hate a doctor's bill as bad as death, and yet by their filthy habits help to make them.

In the removal of filth, or its destruction, certain things are indispensable:—

1. Filth ought to be removed on scientific principles. In our larger cities there is greater science than formerly in emptying and cleansing privy-vaults, so as to cause the least amount of unpleasantness, and to circumscribe ill-effects of germs of disease.

2. Some filth may be utilized for manuring purposes, and so be forced to yield a good return. Mr. Pullman has proceeded on rational principles. He has drained the sewage of his city to an immense central vat, covered over to protect the residents from injury. He has a large engine for pumping up this reeking

mass, and it is transported to his farm some distance away, where it is spread on the land and ploughed under. The total cost of this system was \$68,000. In one year it yielded a clear profit of over \$8,000.

3. Filth must be completely removed, or the results will be unsatisfactory.

4. In disinfecting filth, the work must be carried to the cracks and crevices, and then ought to be repeated several times, remembering the law of latency in connection with disease germs.

5. In disinfecting filth, the material employed must not be as dangerous or obnoxious to the senses of people as the thing to be removed.—*Sanitarian.*

THE TRAGIC END OF A TEA-TOPER.

[THE following article we clip from *Texas Siftings*, a paper which does not always scruple about considerable exaggeration, and we deem it possible that in this case the facts may be somewhat overstated, although we have met at least one tea-toper who would not have been very far behind in a fair competition with the one who, according to the narrative, met so tragic a fate.—ED.]

Not a great many years ago, there lived in Cincinnati a widow, whose name and place of residence I will suppress, for various reasons. Her circumstances were not affluent, but comfortable, she having come into possession of quite a legacy upon the decease of her husband. Eccentricity and stubbornness were prominent traits of her character, and were probably only equaled by her honesty and conscientious regard for fair dealing. Living all alone, with no one to share her comforts and discomforts, she in time became enamored of a single life, and cultivated numerous whims as the outgrowth of it. Her particular hobby was tea-drinking; and indeed she often claimed that her lonely tea parties were the only solace that blessed her monotonous life.

At the time my story opens, there also opened near this quaint old lady's residence, a new tea store. The enterprising tea merchant devised the following plan to secure customers: His store and show windows were filled with a glittering array of all kinds of household articles, to be given away as prizes to those buying his

wares. The old lady happening in one day to buy some of the favorite herb, the merchant engaged her in conversation, and proudly showed her the capital prize of the collection. It was a most unique tea-urn of silver. The old lady was enchanted. She told him she certainly thought it would be the climax of happiness and the very acme of human content to sip tea which had been brewed in that urn. The voluble merchant explained that it was to be presented on the next Christmas day to the person who bought the most tea at his store during the intervening period.

He made the provision, however, that all the tea he sold would have to be used in practical consumption, and not be bought for speculative purposes.

She feasted her eyes on the glittering tea-urn, and walked home with the apparition of it constantly before her.

That night she dreamed of it in all its gorgeousness, likewise the next night and the next; and true to her faith in dreams and her womanly instincts, she at length, after several days' cogitation, fully persuaded herself that the only way to secure her wonted peace of mind and serenity of life would be to enter into the contest for the possession of that dazzling tea-pot.

With her, to think was to act, and the very moment the good creature had decided on her course, she made direct for the tea store and purchased twenty pounds of the choicest article. The proprietor was astonished somewhat, but upon her informing him of the resolution she had made of trying to win the beautiful tea-pot, he grasped the situation at once with true business tact, and told her that Mr. So-and-So, who kept a hotel on the corner opposite, had just left the store with fifty pounds of tea, and that Mrs. What's-Her-Name, the boarding house landlady on the square below, had left an order for forty pounds.

Now just whether this was all true or not, the tea broker thought it policy to say so, and the result justified his presumption; for the stubborn widow at once duplicated her order of twenty pounds.

She was on her mettle now, all the more especially as this self-same boarding house landlady and herself had been acquainted for years, and each had always manifested a most cordial dislike for the other.

Upon learning this the scheming merchant invariably informed our widow every time she made a purchase, that Mrs. What's-Her-Name had just left an order for fifteen or twenty pounds more

than she purchased herself. The result was a prodigious sale of tea on the tea man's part, and a still greater consumption of it on the old lady's part. The thought never entered her honest mind to dispose of it in any other way than by drinking it. Her whole life was devoted to tea-drinking, but she was sustained by an ambitious spirit. She at length bought it by the caddy, and her little fortune began dwindling. She busied herself from morning till night brewing and drinking tea. All the vessels in the house were in constant requisition to hold tea—hot tea, cold tea, middling tea.

She at length boiled it in the wash-boiler, and would drink it during meals, between meals, and before and after meals, and upon awakening in the night she would set to work sedulously guzzling tea.

She began to get fanatical on the subject, and thought seriously of erecting a tank, that she might have tea on tap.

A visitor to her house would certainly have thought himself in a tea foundry. Nothing to see but tea, dry and boiled; nothing to smell or taste but tea; and if he could not see tea, he might at least have heard it boiling.

When the old lady cried (as she sometimes did when she thought of the great odds against her in competing with hotels and boarding houses), she would shed great tears of pure cold tea; and when engaged in stirring her steaming caldron, the beads of tea would stand on her forehead as large as marbles.

The old lady had persistently indulged in this dissipation for about five months, with three more to come before Christmas, when such excessive imbibing began to have effect. Her nerves were shattered, and her health declined. But she stuck to it tenaciously, and gave the merchant a rousing order for six caddies of his best article.

It is not within my comprehension to surmise how all this was disposed of in three short months by a single person. But our tea-drinker did it. She persisted in declaring that she would lay honest claim to that silver tea-pot, or perish in the attempt.

She became, in fact, the living embodiment of a walking tea-pot herself, and the amount of the beverage she daily consumed in internal tea baths was almost enough in point of quantity for an external bath also. But Christmas was drawing nigh, and the extreme indulgence of the old creature left her with but strength

enough on Christmas to crawl to the tea store at the corner.

It was pretty well filled with customers, who had come for their anticipated prizes. She felt in a miserable state of suspense, for, even if she did not win the pitcher, her modest fortune was about spent, and she had of late several times thought it was about the highest priced piece of silver service a mortal ever tried to purchase.

At length, after much figuring, and the making of enormous arithmetical calculations upon his wrapping paper, the wily tea fiend announced that our widow had consumed 1402 pounds of tea, and was entitled to the tea-urn, as she had come out first in the contest.

Tears of joy and tea came to her eyes, and she grasped the high priced bauble in both hands, and giving the hotel proprietor and the boarding-house landlady (who were both there) a most triumphant look, passed out to her home. The merchant had also, in honor of the occasion, presented her with ten pounds of the very choicest tea he had in the store.

Arriving at home, the widow lost no time in brewing the tea she had been presented with, and in serving it to herself from the alluring tea-pot. Just how far into the night she pursued her delightful task, no one knows. In fact, she was not seen for quite a number of days, and at length the neighbors, becoming alarmed, forced their way into her room, and even there she was not to be found.

The gaudy tea-pot stood on the table empty, but the old lady was gone.

One sharp-eyed explorer, however, discovered lying in the old lady's favorite easy chair, close beside the table, a huge tea-leaf. The neighbors presuming this to be all the mortal remains of the widow, and judging she must have died and become transformed to a tea leaf, took care of it, and buried it with due ceremony.

Even to-day may be seen by the inscription on her monument, that she had lived a life of pure teatotalism, and on her grave is a bed of beautiful tea roses, placed there by some kind friend to commemorate the existence of this truly remarkable person.

—Health is maintained by "good living,"—a term that comprehends a great deal. It consists in having good food, properly cooked, at every meal; clothing appropriate to the changing seasons; and moderation in all things.

EVILS OF TIGHT LACING.

IN her admirable book, "The Art of Dress," Mrs. H. R. Haweis presents the following most sensible arguments against the too common practice of tight lacing:—

I have asserted the propriety of concealing defects which are disagreeable and sometimes mischievous to others. How, then, can we sufficiently condemn the folly of creating them? Yet many women create defects by caricaturing what in some figures is pretty—a small waist. I cannot repeat too often the warning that a bad practice, which inconveniences you a little, may harm those to come much, in ways most unexpected to those who are deaf to the teaching of science. This is where many people *unconsciously* err, not knowing the secret ways whereby the "curse may come upon them," nor how cruel the Nemesis is. Girls, especially, should be taught something of what they owe to posterity, as well as to themselves; for in the hands of our girls lie the health and happiness of the entire nation. But they are too often reared in total ignorance of the commonest physiological facts, since foolish mothers suppose that a fine, pure young mind would be deprived by the slightest study of the simple rules of health. Hundreds of young girls injure themselves irreparably through this false doctrine, and never know it till they are wives and mothers. Late hours, cramped positions during study, over exertion in the excitement of London seasons, or on horseback, but worst of all, acceptance of fashions which displace the bones and internal organs till the mischief has become irreparable even by the surgeon, are some of the vicious habits which are sapping the comfort of the present generation, and the mental and physical well-being of the next one. Sickly children spring from sickly mothers almost as a matter of course; but results worse than mere physical feebleness and inanition may come; for the sins of the mothers are not always visited on the children in quite the same form; and as a deformed parent may create an idiot child, a reckless and worn-out mother may give her children morbid tendencies, not immediately the copy of her own constitutional defects, still the immediate result of her own folly and want of self-control. Drink-madness, weak intellect, bone disease, and many obscure horrors may spring from such a seed as a pinched waist, a tortured head or foot, in the mother or grandmother.

We are not denying the necessity for some close-fitting garment as a support to the body, and an improvement to the figure; but we must protest against a machine that, pretending to be a servant, is in fact, a tyrant, that, aspiring to embrace, hugs like a bear, crushing in the ribs, injuring the lungs and heart, the stomach, and many other internal organs. The Eastern lady, who, pitied for her dull harem life, said she thought that the English wives were far more unfortunate, since their husbands (as she innocently thought) 'locked them up in a box,' was not far wrong. And all to what end? The end of looking like a wasp, and losing the whole charm of graceful, human movement and easy carriage—the end of communicating to all who, like artists and medical men, have studied the mechanism of the frame, an over-all-ish sense of deformity!

It is a practice more culpable than the Chinese one of deforming the foot, for in this case no vital organ is interfered with; while in deforming the waist, almost all the vital organs are affected by the pressure, and the ribs pushed out of their proper place.

To those who know anything of anatomy, the impossibility of the organs' retaining their natural place, and performing effectually their natural function when the ribs are pressed in upon them, will at once be clear. All space in the body is utilized and required by health; and though, while the pressure affects the flesh and fat only, no harm results, directly the bones are touched, the vital organs suffer. One can easily discover whether one's compression moves the bones, by measuring the width across the ribs with and without the stays.

And the face betrays the internal mischief. Who can forget the unhealthy cheek and red nose induced by such a practice? Who can forget the disease which has come or is coming? What sensible man or woman can pity the fool who faints, perhaps in the midst of a dance or conversation, from the unbearable pressure on the heart, caused by stays and girdle; or, if they pity, do not also blush for her?

The Roman dame was wiser in her generation; the bands she employed prevented a slovenly appearance, and afforded support without impairing health or the supple beauty of the body.

We only need to recognize the real

beauty of the natural line of the body, for modern stays to assume more normal proportions, combined with such support as is necessary; but meantime it is as well that the grave responsibility which health is to us, for the sake of future lives, should not be suppressed. Tight lacing in the present generation does not induce a tendency to small waists in the next; but it may cause impaired sensibilities and morbid tendencies not to be checked by any after-form of sane dressing.

The reason why a small waist is admired is because, when it is natural, it goes together with the peculiar liteness and activity of a slenderly built frame. All the bones are small, the shoulders and arms compact and little, and the curve from armpit to hip a graceful one.

But an artificially small waist is invariably ugly for the same reason that, in architecture, a pillar or support is called *debased* in art when what is supported is too heavy for the thing supporting, or when a base is disproportionately broad and unwieldy for that which it upholds. Tight lacing destroys the law of proportion and balance; for it is never necessary, except in stout persons, and in them it distorts the natural lines of the body into a coarse, immoderate curve, and gives an appearance of uncertainty and unsafeness.

Were it a question merely between one's own health and one's own beauty, I have little doubt that the majority of women would sacrifice health; but we are so organized that there is no injury to the outward which does not affect the inward, no secret wrong that does not break to the surface sooner or later in ugliness. In order to be beautiful we must be healthy; in order to be healthy we must never thwart nature; and if our folly interferes, however remotely, with our power of breathing, taking sufficient exercise, or common precautions against cold, etc., the result will fall on our heads sooner or later—and the later the worse—in some ugly form.

—"Doctor, I want to thank you for your great patent medicine."

"It helped you, did it?" asked the doctor very much pleased.

"It helped me wonderfully."

"How many bottles did you find it necessary to take?"

"Oh I did n't take any of it. My uncle took one bottle, and I am his sole heir."

—*New York Sun.*

PHYSICAL CULTURE.

THIS, in one sense, is sanitary science applied directly and specifically for improving the different parts of the body. This is composed of tissues, which by the law of exercise and nutrition can be materially changed, especially in early life. No human being was ever born into the world with a perfect body. Generally there are some parts too weak and others too strong, or, in other words, there is a want of harmony and balance.

There is such a thing as a normal standard of physiology throughout every organ in the body, but this perfect standard is never found, only approximates toward it, and the nearer it is approached the more valuable the organism. There is no question but one form or kind of organization is better than another; and if so, there is a form or standard better than all others. What is that form or standard, then, so desirable? We maintain that it is this normal standard where all the organs are perfect in structure, and each performs its own legitimate functions. In all our discussions on this subject, it is highly important that this normal standard should be kept constantly before the mind.

In the making up of all parts of the body, there is a point of very great importance which is not taken into account as it ought to be—that is, *harmony, or balance*. If all the organs are evenly balanced, and each performs its own functions without disturbing the others, it will be seen at once that such an individual will have better health, and that greater power of endurance and longer life will follow. In some respects the human body may be compared to a complicated machine, made up of many parts. Now, the more thoroughly constructed is such a machine, and the greater the harmony in all its operations, where the "wear and tear" will come properly upon all parts, the less likely will that machine be to get out of order or need repairs, and it will be easily kept in good working order. It is so with the human body. Keeping in mind what constitutes a normal standard of physiology, and the importance of harmony or balance in organization, the weak or defective parts in every individual's constitution can be found out. Thus, by means of this knowledge, the weak parts can be strengthened so as to improve health and prolong life.

As the most favorable time for improv-

ing physical organization is in early life, it is important to direct attention to that period. With the increase of wealth and the powerful influence of fashion, together with the pressing claims of education, there is great danger that the vital interests of the body will be sacrificed.

Throughout our whole educational system, as now conducted, from the primary school to the university, the leading tendency is to develop the brain and nerve tissue at the expense of the muscles and other parts of the body. The fact that all mental acquisitions are very dependent upon strength and health—the physical system—is too much overlooked. Another fact should be better understood—that no one thing contributes so much to success in any kind of business, or in professional pursuits, as a sound, healthy body. All experience of the past and knowledge of the present state of society confirms the truths of these statements. Notwithstanding this, most educators, in their zeal for mental acquisitions, pay little or no attention to physical development.

In a school system where children, from five to fifteen years of age, are confined to study most of the time, great pains should be taken that the body is not injured, nor in any way stunted, but that every possible facility be afforded for its healthy growth and development. This caution is more necessary in cities, where the leading tendencies among the young are to a state of physical degeneracy.

In New England, all grades of schools are established more extensively than in States in the West or the South. In a few of these schools provision is made for regular and systematic exercises by gymnastics or some other means. Whenever this practice has been continued for any length of time, a decided improvement has been found in the physical health and scholarship of the pupils. But only a few school boards or teachers have availed themselves of this sanitary provision.

Within a few years there has been a great increase of interest in physical culture in some of the colleges, and also in athletic sports outside of institutions. In two of them—Amherst College and Harvard University—the changes have been so great that they demand special notice.

It is almost twenty-five years since Amherst College introduced a regular system of gymnastics, compelling all the students in classes to practice these exercises half an hour or more every day. A thoroughly educated physician—Dr. Edward

Hitchcock—was placed in charge of this department, who also gave lectures upon physiology and hygiene. These physical exercises are considered as important as lessons in the classics or mathematics, and improvement and deportment here are reckoned in the rank and merit-roll of every student. Since the introduction of these exercises there has been a marked change in the health and the physique of the students. President Seelye recently stated that the health and constitution of students improved every year—that there was less sickness and leaving of college on account of ill-health than formerly, and, what affords still stronger evidence, that the Sophomores had better health than the Freshmen, the Juniors better than the Sophomores, and the Seniors better than the Juniors.

From careful measurements of every part of the body taken of students upon entering college, and again, after four years, upon their leaving, decided changes are found to have taken place for the better in the growth and development of the body.

The physical training at Harvard is different from that at Amherst. It is not compulsory, but voluntary; it is not carried on by classes, nor at set hours. While a large number of students exercise in the gymnasium, they do it at their own convenience, and engage in such exercises as they think will do them the most good. A highly educated physician—Dr. D. A. Sargent—has charge of the gymnasium, and makes a specialty of advising what particular kind of exercise is best adapted to improve the health and strength of individual cases. Thus, if among the students entering the University some are found suffering from certain physical weaknesses or defects, they are placed under his training, and in the process of time are greatly benefited. Within a few years there has been a great increase of interest as well as improvements at Harvard in sanitary matters, to which the new gymnasium and its superintendent have very much contributed. In a recent address before the Alumni, President Elliott stated that the more he saw of the men graduating from the University who had gained distinction in life, or eminence in the learned professions, the more he was convinced that the basis of their success depended much upon the vigor of the body and a sound constitution.—*Dr. Nathan Allen, in Sanitarian.*

FADED GIRLS.

THERE are abundant reasons why many young men are older at twenty-five than their grandfathers at seventy-five. They drink, they smoke, they chew tobacco, they debase and debauch themselves; they use poison enough every day to kill a boy ten years old. Commencing such a course in early life, it is not surprising that old age finds them before they ever attain the strength and beauty of mature manhood.

But the exhausted and faded condition of women is not, as a rule, to be accounted for in this way. They do not smoke tobacco, they do not drink liquor, they do not indulge in certain vices that often ruin young men; and yet, in point of fact, they age quite as fast, and decay quite as early as do men. We have seen numbers of school girls and young women, from eighteen to twenty five, who looked older than they had any right to look at forty; who were pale and sallow, who had sunken cheeks and hollow eyes, and all the marks of weariness, exhaustion, age, and decay.

A moment's consideration would show us that a man or woman at the age of thirty-five or forty, should be in the prime of *health, strength and beauty*—ripened but not decayed; full of manly power and womanly grace, with strong muscles, rosy cheeks, bright eyes, and forms elastic, plump, and vigorous. Instead of this, we see persons at twenty-five who have lost the last traces of their early beauty, whose cheeks are pale, whose faded lips have lost every suggestion of health and freshness, who have false teeth in their mouths, false hair on their heads, false color on their cheeks, false muscle on their forms, and who are in a chronic state of feebleness, nervousness, and decay. And this exhaustion is not the result of family cares and burdens, for many of the unmarried women are quite as haggard in appearance and wretched in health as their married sisters.

What is the cause of all this waste of human life which sends so many persons to the grave just at that time when, having passed the portals of youth, they should be prepared for thirty or forty years of active and influential service in the world? Of course, in the minds of fools it is all the result of some "mysterious providence;" but a more careful consideration assigns definite causes for this decay, among which may be mentioned the following:—

First, a style of dressing which forbids

the expansion of the waist, the seat of the vital organs; so that most women are no larger about the waist at thirty than they are at fifteen. They have grown everywhere else, except there, where they *most needed to grow*. Other portions of the body are guarded by bones which resist pressure; the waist is left unprotected, simply that it may have a freer opportunity for expansion than *any other portion of the human frame*. Just here, Satan, the dress-makers, and the fools combine their efforts to *prevent all expansion*, and sometimes to reduce to the smallest possible dimensions, the space which the Creator has arranged for the performance of the vital offices upon which all healthful human existence depends. The stomach is compressed against the spine, so that it cannot properly digest food, the constant expansion and motion which it should have with every breath is interrupted, the appetite is thereby ruined, and food is only taken in small quantities; the lungs are cramped into the upper portion of the chest, instead of being allowed to expand downward, as is natural, making huge shoulders and causing that heaving of the *chest* at every deep inspiration, which is so unnatural and so nearly universal among women, limiting and diminishing the amount of air taken into the lungs, and, of course, thus preventing the proper aeration of the blood, and rendering red cheeks and good health an impossibility; the diaphragm, the great organ of respiration, is cramped, and confined, and rendered inactive; while as it regards the contents of the lower part of the body, every organ is *crowded out of its place* by the compression of the waist, causing endless miseries, diseases and difficulties which enrich doctors but ruin women, unfitting them for the privileges and duties of motherhood, condemning them to life-long misery, and causing pains and ailments too numerous for present mention.

Thus deprived of food and air, the poor woman is languid and feeble; lacking nutrition, she seeks for stimulants, which she finds in tea, coffee, opium, bitters, drugs, and strong drink, and so drags out a weary life and sinks into an early grave, leaving two or three sickly orphans behind her, and a husband who shortly goes hunting around to find him another wife.

This whole procedure is an outrage upon all the principles of health, righteousness, and religion. The bodies which God himself has fashioned after heavenly models, are destroyed, debased, and bun-

gled over by dressmaking blockheads who, with infernal ingenuity, contrive to waste more cloth and create more misery than an ordinary mortal could believe to be possible. And faded girls, with stomachs compressed until they can neither eat nor digest a decent dinner, with lungs compressed until they cannot take a full breath to save their lives, view their sunken cheeks, and scrawny arms, and frizzled hair, and sigh for the freshness and beauty of girlhood, which, alas, has forever gone. They must get married before they are twenty, or they become such guys that nobody will want them; while if they would return to simple methods of living, taking abundant sleep, dressing loosely, breathing freely, eating simple food, and ceasing to drink drugs and dye-stuffs, they would grow young for ten years to come, and be beautiful as long as they lived. But, alas! to do this requires independence and wisdom, and—the unwise are not all dead.—*The Common People*.

TRUE POLITENESS.

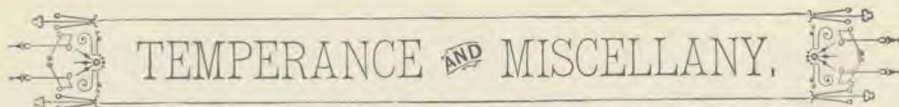
A poor Arab going through the desert met with a sparkling spring. Accustomed to brackish water, a draught from this sweet well in the wilderness seemed, in his simple mind, a present to the caliph. So he filled the leather bottle, and, after a weary tramp, laid his gift at his sovereign's feet.

The monarch, with a magnanimity that may put many a Christian to blush, called for a cup, and drank freely, and then with a smile thanked the Arab, and presented him with a reward.

The courtiers pressed eagerly around for a draught of the wonderful water which was regarded as worthy such a princely acknowledgment. To their surprise, the caliph forbade them to touch a drop. Then after the simple-hearted giver left the royal presence with a new spring of joy welling up in his heart, the monarch explained his motive of prohibition:—

“During the long journey, the water in his leather bottle had become impure and distasteful; but it was an offering of love, and as such I accepted it with pleasure. I feared, however, that if I allowed another to taste it, he would not conceal his disgust. Therefore it was that I forbade you to partake, lest the heart of the poor man would be wounded.”—*Sel.*

—Make your head save your heels.



TEMPERANCE AND MISCELLANY.

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

Conducted by MRS. E. E. KELLOGG, A. M., Superintendent of Hygiene of the National W. C. T. U.

REST.

Rest is not quitting
The busy career;
Rest is the fitting
Of self to one's sphere.

'Tis the brook's motion,
Clear without strife,
Fleeting to ocean,
After this life.

'Tis loving and serving,
The highest and best;
'Tis onward, unswerving,
And this is true rest.

— Goethe.

GLIMPSES OF FLORIDA.

BY MRS. E. E. KELLOGG.

FROM THE ATLANTIC TO THE GULF.

JACKSONVILLE is the commercial metropolis and largest city of Florida, and was named for that hero so well beloved in the South, Gen. Andrew Jackson. We could not learn that it was particularly noted, save as a winter resort for tourists and invalids; but it appeared a handsome and prosperous city, with remarkably broad streets, most of them shaded by long rows of mammoth live-oak, whose spreading branches nearly met overhead, forming an arcade of leafy green. There are many fine residences, most of them surrounded by attractive grounds filled with tropical shrubs and flowers, among which are the homes of Judge Thomas Settle, the original of Judge Denton in "The Fool's Errand," and Gen. Spigner, inscriber of the famous greenback autograph. The beautiful St. John's River, on the shore of which the city is located, and which it overlooks for many miles, forms one of its most attractive features. We sat at our hotel window, and gazed upon its placid waters, in which the blue of the sky was reflected, and watched the far off shores, purple in their hazy distance, and the white sails of the fishing boats gleaming in the sunshine, until the picture grew enchanting; and one day we took passage upon a St. John's steamer for a grand tour up the river. For the first hundred miles the stream is a series of connected lakes, varying from one to six miles in width, with flat shores, green with forests of live-oak, cypress, and willow, and frequently dotted with little villages of well-built, bright looking homes, surrounded by thrifty groves of orange trees bending beneath a burden of golden fruit.

The first point of interest to us was Mandarin, a cosy little village of neat houses with orange groves and gardens, and the winter home of Mrs. Harriet Beecher Stowe. A colored deck hand proudly pointed out to us the residence of the author of

"Uncle Tom's Cabin," which can be plainly seen from the river; and we shall ever carry in our memory a picture of the pretty little Gothic cottage with its broad veranda, nestling among a wealth of green foliage as we saw it on that January morning.

Just across the river from Mandarin lies the little village of Orange Park with its wide streets, numerous pretty cottages, and broad river avenue lined with the most magnificent live-oak trees, in one of which is built a rustic summer house reached by easy ascending stairs. Hanging in the greatest profusion from the spreading branches of the oaks were festoons of Spanish moss, looking in the distance like immense cobwebs flaunting in the breeze.

A succession of other small towns, among which are Magnolia, Green Cove Springs, and Palatka, each with some special attraction,—sulphur springs or famous orange groves,—kept us on the lookout for points of interest at every landing. A few miles farther on, the river widens into Lake George, one of the most beautiful inland lakes of America, twelve miles in width and eighteen miles in length. Its surface is dotted with a score of lovely islands, and its waters teem with numberless varieties of fish. Beyond Lake George, the character of the river changes; its channel becomes narrower, its waters darker, while vegetation along its shores assumes a more tropical appearance. The St. John's is a most unique river. Unlike most other rivers of America, in its course it flows due north, and it is not grandeur one finds upon its banks; there are no cliffs, no storm-battered rocks and trees, but a wealth of exquisite foliage and flowers, wild and untouched in their native beauty.

Here one sees the palmetto tree in all its stages, from its earlier growth, when it appears like a fountain of immense, green, fan-shaped leaves falling from a low, scaly trunk, often so full of clambering vines and flowers as to look like a flowery pillar, to the mature tree that stands a tall, smooth, branchless trunk with its fan-leaf canopy sixty or seventy feet in the air. The palmetto builds itself up in ring after ring of leaves, which decay and drop away with age, leaving their stems like scales upon the tree; these finally fall and leave the trunk smooth and bare, with only its crown of green at the top.

The shores on either side of the stream are lined with a dense growth of live-oak, willow, and cypress trees with their feathery foliage and peculiar trunks, smooth and white as ivory, with an enlargement at the base, giving them, as some one has said, the appearance of "champagne bottles set in the current to cool." Long, swaying festoons of gray moss hang from the branches of the trees, and mingle with the green of the foliage and the bright, scarlet blossoms of the air-plants that cling to the sides of the sturdy trees.

As we progress up the river, the channel of the stream grows narrower, sometimes so narrow that the boat seems almost to touch the over-hanging

branches of the trees on both shores as we glide past them, and so remarkably crooked and winding that at every turn we are kept wondering where it will be possible to find a chance for farther passage, since we appear to be entirely surrounded by the shores; but just as we feel sure we have reached the end, a sharp turn of the boat opens to view a few leagues more of the beautiful river, and we glide on through a succession of turnings and windings which constantly present us with a varying panorama of enchanting scenes. The glimpses of the shore, covered with a dense jungle of bushes and moss-robed trees, over which gigantic vines run riot, are most pleasing; and the bright red berries of the mistletoe, the wild flowers on the banks, and the gay plumage of the birds, add many charms to the ever-changing picture. Occasionally our steamer startled up an alligator basking in the sun, and once a few frightened deer went leaping through the thicket at our approach. Now and then the woods break away for a little space, and one sees the thrifty orange orchards and small cottages of the new settlers.

Night overtook us before we reached the end of our journey, and we sat on the deck and watched the beautiful sunset, and the waters in the track of the boat glimmering like ripples of pearl in the deepening twilight, until the mellow brightness of the electric lights from the boat transformed the tall, pillar-like trunks of the palmettos with their crown of waving fans, and the thickets of moss-hung, vine-covered trees, into a scene most wonderfully weird and beautiful. The day's journey had been one of ever-varying interest; but the evening's ride was the most dream-like, enchanting one conceivable, and it was almost with regret that we saw our boat steam out into broad Lake Monroe, and in a few moments more found ourselves at the wharf of Sanford, where we were to remain over night.

Early the next morning we were on board a train of the South Florida Railroad, flying on through a monotonously level country, dotted with numberless little lakes, a few of which were remarkable for their beauty, the scenery only varied by the thrifty little villages which are springing up so rapidly in this southern portion of the State. Here the changes from our Northern ways of living began to be most apparent. The two-wheeled vehicle filled with store supplies, and drawn by a single beast, astride whose back sat the driver, and the canvas-covered ox-cart in which a whole household with all its belongings might dwell, soon ceased to be a strange sight to us; and before we reached the terminus of our journey we had quite gotten used to seeing the characteristic Southern house, one or one and a half stories high, with its broad verandas, its wide hall extending through the entire building, and the shed at the rear whose one chimney or stovepipe reaching up through the roof furnished the only convenience for a fire within the dwelling, with the whole structure set up from the ground on a row of short piles. At first we imagined we had come to a country where sanitary principles were so widely practiced that cellars had been purposely abolished as unhealthful; but, judging from the lack of regard paid to hygienic laws in other particulars, we were afterward forced to the conclusion that no such actuating principle could account for this excellent feature of a Southern house, but that more probably necessity, in a land where all the stone is sand, had obliged the residents to forego the convenience of the underground store-room which so often proves an enemy to health in Northern homes. The dreary aspect of

the negro hovels, with their one room, whose only chance for sunlight is the square apertures in the side, sheltered from rain and wind by solid shutters of wood through which when closed no ray of light can enter, was sometimes offset by the thrifty gardens of strawberries, and pine-apples, and banana plants with their broad green leaves which a recent writer has most aptly likened to "immense, green quill pens," that grew along the way. As we journeyed along, we more and more lost sight of that freshness that the green grass gives to our Northern landscape, but we were hardly prepared for the abundance of white sand which spread itself with such dreary untidiness everywhere before our vision as we stepped from the train at Tampa, where we were to spend the remainder of the winter months. We soon learned, however, that in Florida one must accept certain deficiencies for an equivalent of certain other excellencies, and that if one wants to live in an orange orchard, he must give up wanting to walk upon velvety lawns and green grass.

"A TROUBLER IN ISRAEL."

BY ELEANOR KIRK.

CONTINUED.

It was not long after this that Nellie was sent to Jack Stout's house to summon Arabella to do some extra cleaning, with orders to return immediately. It was a gorgeous spring day, and little Polly was just on the point of starting to a neighboring pasture "to run round with the heifers a bit," Arabella explained. Of course Nellie was wild to go too. Arabella said she did n't think 'twould do "the leastest harm in the world," and so she removed Nellie's finery as usual, and relieved her of the strait-jacket, substituting a pink calico dress of Polly's, and a warm woolen sacque to keep her from taking cold. Then the white child and the black child proceeded to enjoy themselves. Such romps as these gave Nellie about the only chances she had for her life. Her lungs expanded; the action of her heart grew normal; and her blue eyes, which her mother thought so ugly and inexpressive, shone like stars.

"I think Mrs. Westbrook ought to be ashamed of herself," Arabella remarked to her mother, Mrs. Jack Stout, when the children were out of hearing. "She buttons that child up so tight that there ain't a bit o' room for her liver and lights. I should think Mr. Westbrook would know better. He must see how 'tis. He ain't no fool. Say, mother, I can let these stays out more'n an inch by just setting these buttons forward, and nobody never'll be the wiser for it."

"All right," said Mrs. Jack; "just pitch right in. If somebody don't do something to the youngun, she'll bust afore long."

Arabella took up her scissors to snip the thread that held the buttons, but just at that instant a shadow fell upon her work. She glanced up, saw Mr. Westbrook, and jumped like a detected thief.

"Did I frighten you, Arabella?" he asked kindly.

"You've scared me out of a seven year's growth," said the colored woman with a shrill laugh. "You see," she added apologetically, "Nellie is over in the cow pasture with Polly;

and says I to mother, I'm just going to move the buttons on that child's waist while she is gone, so't she can get a half way breath once in a while anyway. I know," as her companion did not speak, "that this ain't none o' my business, Mr. Westbrook, but I never see Nellie that she do n't beg me to unfasten her clothes. I ain't white, and I ain't eddicated, but I've got a pair o' eyes in my head, and I'm human if I am black. If it 'pears like sarse, Mr. Westbrook, and impidence, I can't help it, but I tell you one thing, and that is, your little girl will go into galloping consumption if she ain't allowed to use the breath God gives her."

"I do n't know but you are right, Arabella," said the gentleman. It was a hard matter to reply to this. Mr. Westbrook could not but be hurt and humiliated to find that this ignorant colored woman was possessed of more humanity and common sense than the mother of his child. Arabella knew that it was necessary to breathe freely and deeply. She knew that cramped lungs—or lights as she called them—were sure to break down sooner or later. Mrs. Westbrook was utterly ignorant on this subject. Her answer to this statement would have been, that her mother "made her figure," for which she was very grateful to her, and she had never had consumption.

"I think you had better not move the buttons, Arabella," Mr. Westbrook continued after a while. "I will call my wife's attention to the matter immediately. Didn't Nellie tell you that her mother expected her to come directly back?"

"Yes, she did," said the colored woman bestirring herself instantly; "but I was going into town in about an hour, and I thought I could take the child back with me. But I'll call her this minute if you say so."

"If you will be so kind, Arabella," said the gentleman, "and I want to ask you not to give your consent to Nellie's staying again when her mother has told her not to. It only makes trouble for us all."

Arabella's lungs were not cramped, as the deep breath that followed this appeal testified.

"The Lord knows I don't want to make any trouble for you, Mr. Westbrook," she said. "You shall have her in a jiffy, and nobody never need to know nothing about it."

Mrs. Westbrook had told her husband that nothing should save Nellie from punishment if she disobeyed her again in this matter. Mr. Westbrook had seen the child pass swiftly down the main street, and surmising where she was going, had hurried after her. He was sure that she would not return as she was bidden. The beautiful day and little Polly Stout would be too much for her. Nellie was fast becoming inured to punishment, and for the blessed privilege of an hour's frolic with Jack Stout's little daughter in the beautiful great pasture, she would have taken a switching or half a day's confinement in the dark bedroom, with the most perfect equanimity. She knew that her father felt a good deal worse about these frequent punishments than she did, and this was a great trouble to her; so when he asked her on this oc-

casion, in the low and somewhat solemn tone that made her little heart ache whenever she heard it, why she so constantly disobeyed her mother, she burst into tears.

"Arabella did n't think that a little while would be disobeying," she replied between her sobs.

"But Arabella has no right to say anything about it," her father told her. "Little girls must mind their mothers, or take the consequences," he added.

This was a hard matter for this broad, just, and generous man to deal with. His wife was narrow and tyrannical in her management of this child, and he knew it. But he must appear to agree with her for the sake of all that was decent and "of good report" in the family circle.

"I'll take 'em, papa," said Nellie, brightening up.

Mr. Westbrook had got even farther away from the conversation than we have in his mental anxiety to hit upon some safe plan of action.

"What will you take, Nell?" he asked.

"What you said, papa—the squences."

"Then you know the meaning of that word?"

"Oh, yes, papa, and it only hurts a minute when she whips me; and now when she sends me to the dark bedroom, I shut my eyes and think things, and then pretty soon the door is just wide open."

"When she whips me"! There was something so terrible, so strangely formal and pathetic, so expressive of the distance bet the mother and child in the use of this personal pronoun, that for a few moments Mr. Westbrook could hardly have been more wretched if they had both ceased to breathe.

"What kind of things do you think when you are in the dark closet, Nell?" he inquired, after a while.

"Oh, lots and lots," was the cheerful answer. "I think about when I get to be a lady what I'll do, and what nice times my children will have, and how many barrels of apples I'll have baked every day, and what a big house I'll have with no top to it, so that we can see the sun and the stars all the time—and then, papa, I think some things about God, too, and I guess I'm going to like him."

"What makes you think that?" Mr. Westbrook asked, turning his head away to conceal the twitching of his facial muscles.

"Well—because—he made all the nicest things there are. He did n't make the houses—if he had, he'd made 'em better. I hate houses. But he made the trees and the grass and the flowers and the stars and the ocean—and how can I help liking him? But, papa"—this very confidentially—"I do n't like Mr. Welsh's God at all."

"You see, dear, you are not quite old enough to understand what Mr. Welsh means when he talks about God," said Mr. Westbrook.

"That's good," Nellie responded with a hop, skip, and jump.

"You were saying a little while ago," her father remarked, "that it does n't hurt much when your mamma is obliged to punish you; but I want you to understand that it hurts me

very, very badly. I want my dear little girl to be obedient and polite and loving, especially to her mamma, who does so much for her, and is so anxious to have her behave well."

There was no answer to this entreaty. The child saw the weak places in the appeal, and had sense enough to be sorry for her father that he had not a better argument.

"Did you know mamma when she was a little girl, papa?" Nellie asked, after a long, thoughtful pause.

"No. Why?"

"Because I guess she didn't like out-doors, and the sky, and snow, and all of those things," the child replied. "O papa, if I only could play 'mammy in a-wading' like other little girls! They have such a good time."

Why couldn't this child play like other children? Mr. Westbrook asked himself. These things must be attended to, and his wife must be brought to reason.

Not long after this episode, another child was born to the Westbrooks, this time a delicate, tiny, black-eyed boy. He was the "image of his mother," everybody said, only so pinched and wan looking. Motherhood seemed to have sprung suddenly into life at the birth of this little one. Here was something that could compensate in great measure for the first disappointment. These soft, beautiful, great, black eyes, this lovely dark complexion, so like the mother's, the fine, regular features,—all so different from poor, plain little Nellie's,—were constant objects of admiration and worship.

There were only two decent and comforting points about Nellie, in her mother's opinion. She was not a fool, although so very unlike her. She had a good complexion, and there was a prospect of her having a small and willowy figure. But this boy, this wonderful boy! Mrs. Westbrook could now show her husband how easy it would be to govern a child that had inherited her looks, her cultivated tastes, unexceptionable instincts. This lady did not clothe these thoughts in this language exactly, at any rate she did not do so audibly; but her husband understood, and smilingly accepted the situation. His heart went out also to the dear little fellow with the heavenly eyes and sweet, patient face.

The *trousseau* of this baby had been the admiration of the town. Such fine material, such tiny tucks, such length of skirts, such heavy embroidery, had never been seen before. And when the fine clothes were put into practical use, it was a work of art to find the poor little infant. Mrs. Westbrook adhered to the long swathing bands which her mother had considered indispensable, and so the mite was bandaged, without the slightest reference to breathing room, from his armpits to his thighs.

Nellie was present at one of these binding performances,—the baby cried so at such times that it was taken to the dressing-room,—and expressed her very decided disapproval of the process.

"My hand is nice and warm," she said, "and please let me put it up under the band; then

you can wind it round and round, and it won't be so tight."

As it happened, this nurse was not above learning, even from a child; and though very difficult to manage, she permitted the little girl to carry out her intention, which seemed to afford her the greatest relief.

"If I ever have a baby," said Nellie quaintly, "he won't wear such things as these," touching the long, heavy skirts with an air of having settled some questions permanently in advance.

"What will he wear?" the nurse inquired.

"Something big and warm and short," said the child.

"But if you have short clothes, the little feet will be cold," the nurse suggested.

"Oh, no," was the ready response. "I shall have cunning little woolen stockings that come clear way up like my leggins. I just know babies do n't like clothes."

"Of course you like your clothes," the nurse predicated, "because you have such beautiful ones."

"They do n't feel beautiful," the child answered; "and if mamma makes the baby's clothes as tight as mine, I hope he'll die."

This was shocking, of course, but it had the effect of making Nellie a warm friend for the eight weeks the nurse remained under the roof. And it did more than this. It started her to thinking on the important subject of the dressing of infants, and was of the greatest practical use. "And a child shall lead them," this woman said to herself many times afterward, when dressing the numerous little ones intrusted to her care. Nellie's protests and criticisms had had the effect of giving them all breathing room.

That evening the little child asked her father, "If God had meant that my waist should be small, would n't he have made it so to begin with?"

"I think God intended you to be a healthy, comfortable, useful person," her father responded. Oh, the dodging, the turning and twisting this poor man had to do at this time!

"Well, I'm not comfortable," said Nellie. "I busted off two of my middle buttons yesterday; and, papa, I'm going to keep busting 'em off."

"I'll ask the nurse to fix your clothes, my dear," her father told her, and this time he was as good as his word.

TO BE CONTINUED.

PRACTICAL EDUCATION FOR WOMEN.

THE world is so full of genuine women, guided by the noblest principles, and evincing an almost desperate eagerness to earn an honorable living for themselves, parents, or little ones, that the necessity for an education different in this respect from that usually given to girls, must be apparent to all.

If viewed from the standpoint of real instead of ideal life, the course of study followed in the actual "female seminary"

will logically appear as a standing wonder. It has been so long in use that the principle upon which it was built, and the end it was designed to attain, may be justly inferred from the results actually produced. Apart from an effort to discipline the mind, which can be as well done by the acquisition of useful as of useless knowledge, its chief purpose seems to be that of furnishing intelligent playthings for men possessing exhaustless wealth. Judging by its fruits, it evidently assumes that a woman's work mainly consists in discussing literature, smattering French, executing operettas, and attempting to copy paintings without a knowledge of drawing. It assumes that the girl will not marry; or if she does, that the strain of maternity will not test her constitution; that her children will never be sick; that her family will be oblivious to bad bread and household confusion; and that a flowerless garden will fill her husband with bliss, and a buttonless shirt, with ecstasy; and, above all, that she will never, through any adversity, or under any conceivable circumstances, be required to perform any possible kind of work. The world for which it prepares her is dreamland, where the poetic Clarence Mortimer awaits her arrival, that they may sail in a fairy ship over a placid ocean to his castle in Spain, and spend a perpetual youth in delicious wooing, while the ceaseless moonlight sifts through the overhanging leaves, and exotic flowers perfume the air. Clarence Mortimer is a fraud. His true name is Tom Jones. He lives in California, and earns every cent by hard labor. He tears his clothes, snores, and eats unlimited quantities of solid food, which Mrs. Tom Jones may have to cook, and, at the same time, preserve order among an assorted lot of little Joneses, energetic with mischief, and having capacious lungs and elastic stomachs. It is *not* strange that the seminaries provide the usual course of study; for, like other merchants, they only supply the articles demanded by the market.

But it is strange that a mother who was herself so educated, and who, as wife and housekeeper, has keenly felt her own ignorance of subjects that should have been taught, and her want of skill that might have been acquired, can be content to give her daughter the same unreal preparation for that which she knows to be real life. And it is exceedingly strange that fathers, long familiar with the distress suddenly

wrought by financial changes, should religiously exclude from the daughter's education all knowledge of business, and every possibility of earning a woman's living except by the washtub, needle, or piano.—*Students' Workshop.*

POMPEIAN CLEANLINESS.

A RECENT letter from Pompeii to the *American Architect* says: "One thing is difficult to conceive without seeing it, and that is the gorgeousness of the interiors of the private houses. The colors are now faded; the columns are broken; the mosaics of the floors are generally nearly destroyed; the fountains do not play; the flower beds are destitute of flowers; yet, even as it is, one is continually amazed by the brilliant effect of the interior vistas. In one house, the view from a triclinium across two courts, both surrounded by gayly-decorated Corinthian columns standing before walls painted from top to bottom in a variety of colors, is really dazing to the eyes. The old Pompeians lived in a rainbow atmosphere. Another striking thing is the absolute cleanliness. You may say that the dirt has all been taken away by the Italian government. That is true; but it is quite evident that, in the old times, it never was there. Our modern houses are not made to be clean as were the Pompeian residences. The walls, the floors, every corner of their homes were finished with the most admirable workmanship. In their rooms no plaster ever fell, for it was of such excellent material, and so well put on, that it soon became like marble. They had no wooden walls, no cracks where dust could penetrate. Water for cleansing was found in every part of the house, and ran off through perfect drains. All the tables and bedsteads were of marble or bronze, and even the well-curbs and the borders of the flower beds were of hewn stone. Hygiene must have come naturally to the old Pompeian. He evidently had no chance to get a typhoidal attack. The only class of diseases he could not provide against was the eruptive, and one of these carried him off at last."

—I look upon a library as a kind of mental chemist's shop, filled with the crystals of all forms and hues which have come from the union of individual thought with local circumstances or universal principles.—*O. W. Holmes.*

Popular Science.

—It is proposed to make use of pressed glass as a substitute for cast-iron for street lamp posts, stairs, gas and water pipes, etc.

—The River Sutlej, one of the great streams of British India, is probably the swiftest large stream in the world, having a descent of 12,000 feet in 180 miles, or an average of sixty-seven feet per mile.

—There are said to be thirty-six varieties of oak in the United States, thirty-four of pine, nine of fir, five of spruce, twelve of ash, four of hemlock, three of hickory, eighteen of willow, nine of poplar, four of maple, and three of cedar.

—The magnesium light has been found by experiment to have far more penetrating power in fogs and mists than that produced by electricity, and it bids fair to supersede the electric light as an illuminating agent for marine purposes.

—Nitrogen is solidified at a temperature of -214° and under a pressure of 60 atmospheres, its critical point being -146° under the pressure of 35 atmospheres. By carrying the rarefaction to 4 mm. of mercury, the author has succeeded in obtaining a temperature of -225° . The solidification point of carbon monoxide is -207° with a pressure of 100 m. of mercury. Oxygen still remains liquid at a temperature considerably below -211° .—*Olszewski*.

—According to the *Popular Science News*, Prof. E. Mach, of Prague, has secured some remarkable photographs of a pistol-bullet in its flight, by means of electric illumination. He has also photographed the air-streams which are to be seen over a Bunsen burner placed in sunshine, and has even obtained pictures of waves of sound, these last being made visible by a method in which advantage is taken of the irregular refraction of light by the waves set in vibration by sound.

The Megaphone.—This is a recent invention designed especially for use on shipboard. It is a machine for magnifying sound, a sort of telescope for the ear. The purpose of it is to enable a person to hear or carry on a conversation with people at a distance; and it is constructed of two huge cone-shaped tubes, eight feet long, and three in diameter at the large end, which diminish to an apex in the form of rubber tubes small enough to put in the ear. Between these tubes are two smaller ones, constructed in the same manner, but not more than half the diameter. By placing the rubber tubes in the ear, and speaking through the smaller cones, the person can hear and be heard at a long distance; and the purpose of the invention is to aid mariners in listening for the sound of breakers, or carrying on conversation with people on shore, or on other vessels at a distance.—*Pop. Science News*.

Remarkable Changes of Instinct.—An instructive case of an intelligent change of instinct in connection with nest-building is given from a letter by Mr. Haust, dated New Zealand, 1862:—

He says that the Paradise ducks, which naturally or usually build their nests along the rivers on the ground, have been observed by him on the east of the island, when disturbed in their nests upon the ground, to build "new ones on the tops of high trees, afterward bringing their young ones down on their backs to the water;" and exactly the same thing has been recorded by another observer of the wild ducks of Guiana. Now if intelligent adjustment to peculiar circumstances is thus adequate, not only to make a whole breed or species of bird transport their young upon their backs,—or, as in the case of the woodcock, between his legs,—but even to make web-footed water-fowl build their nests in high trees, I think we can have no doubt that if the need of such adjustment were of sufficiently long continuance, the intelligence which leads to it would eventually produce a new and remarkable modification of their ancestral instinct of nest-building.

Turning now from the instinct of nidification to that of incubation, I may give one example to show the plasticity of the instinct in relation to the observed requirements of progeny. Several years ago I placed in the nest of a sitting Brahma hen, four newly born ferrets. She took to them almost immediately, and remained with them for rather more than a fortnight, when I made a separation. During the whole of the time, the hen had to sit upon the nest; for the young ferrets were not able to follow her about, as young chickens would have done. The hen was very much puzzled by the lethargy of her offspring, and two or three times a day she used to fly off the nest calling on her brood to follow; but on hearing their cries of distress from cold, she always returned immediately, and sat with patience for six or seven hours more. I found that it took the hen only one day to learn the meaning of these cries of distress; for after the first day, she would always run in an agitated manner to any place where I concealed the ferrets, provided that this place was not too far away from the nest to prevent her from hearing their cries. Yet I do not think it would be possible to imagine a greater contrast between two cries than the shrill, piping note of a young chicken and the hoarse, growling noise of a young ferret. At times the hen used to fly off the nest with a loud scream, which was doubtless due to the unaccustomed sensation of being nipped by the young ferrets in their search for the traditional source of mammalian nutriment. It is further worthy of remark that the hen showed so much anxiety when the ferrets were taken from the nest to be fed, that I adopted the plan of giving them the milk in their nest, and with this arrangement the hen seemed quite satisfied; at any rate, she used to chuck when she saw the milk coming, and surveyed the feeding with evident satisfaction.—*Popular Science Monthly*.



BATTLE CREEK, MICH., MAY, 1885.

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

TERMS, \$1.00 A YEAR.

ETHICS OF HYGIENIC REFORM.

"Is it anybody's business what I eat or drink or wear, or how I use my body?" "Do not I belong to myself? and have n't I a right to do as I please with myself?" These and similar remarks are very frequently heard by those who urge the moral obligation of health culture, and apparently in full sincerity on the part of those who make them, and with entire confidence that they are offering an unanswerable argument in support of their personal rights to do as they please respecting their own bodies, whether their actions are in harmony with the laws of health or not.

Let us see how much truth there is in the claim that individual rights include the right to treat the body in a manner not consistent with its interests; to abuse the stomach for the purpose of affording the palate a questionable gratification; to whip and goad the brain and nerves by stimulants to do more work than is possible for them to do without injury; to recklessly violate any or all of the laws of health.

The claim is not that disregard of the laws of health does not injure the body, but that a man has a right to abuse his body if he chooses. Let us see. Here is a man who has vast possessions,—houses, barns, well-filled granaries, collections of rare and curious natural objects, galleries filled with beautiful works of art, safes filled with paying stocks and government securities,—all sorts of wealth. Suppose this man takes it into his head to destroy this wealth. Possessed by this idea, he

sets fire to his houses and barns and granaries, and into the flames hurls the contents of his costly collections; deliberately enters his art galleries, and demolishes the masterpieces of great artists which adorn the walls; opens the doors of his safes and vaults, and one by one commits his treasures to the flames. Hold on there! says the law, and its strong hand is laid upon him as soon as his purpose is discovered. A man who thus recklessly destroys his property is regarded as either a criminal or a lunatic, and, in either case, unfit to be at large. The State recognizes the fact that the man's property is not wholly his own, or at least that others have interests in it. What he does not require for his own use, belongs to his children or other surviving relatives, or, in case he dies without a will and without heirs, to the State.

The State recognizes the right of a child to inherit from his father his due share of the property which the latter may have acquired. Ought not intelligent men and women to recognize the fact that the child has an even greater right to inherit from its parent a constitution unimpaired by vicious or injurious habits or neglect of the requirements of physical law? What can any parent possess which the child may inherit, that can be estimated as of greater value than a sound constitution, and vitality unimpaired by disease induced by excesses or by disregard of the wants of the body? If the rights of a child to inherit a fair share of the material wealth of its parents are considered worthy of respect and attention, are not its

rights to inherit a sound and healthy body equally worthy of consideration?

The man who injures his constitution by reckless disregard of health laws, not only impairs his own usefulness and real happiness, shortening his life, and bringing upon himself disease in various forms with all its attendant sufferings and inconveniences, but entails upon his children and his children's children, as well as all succeeding generations, the same diseases or tendencies thereto, and the same curtailment of life and happiness which he himself suffers. Indeed, the results of his follies may be felt even more keenly by his children and grandchildren than by himself. That quaint philosopher, Dr. Oliver Wendell Holmes, remarks that each one of us is an omnibus, in which ride all our ancestors. What right has any man by reckless habits of life to compel each of his children to carry about in his omnibus the results of the selfish gratification of depraved tastes and morbid appetites. It may be said, and there is no exaggeration in the figure, that each man is a picture-gallery, in which hangs the portrait of each of his predecessors; and among the pictures which hang upon the walls, may be seen some brilliant with beauty, others hideous with deformity; some beaming with health and vigor; others scarred and wasted by disease. Let every man who thinks he has a right to treat his body as he pleases, consider for a moment the fact that his portrait may sometime hang in somebody's picture-gallery, drawn true to nature by an artist who never glosses over defects, or embellishes deficiencies. It is a matter of no small consequence to the owner of said gallery whether the picture which hangs there represents disease and decrepitude, or vigorous vitality.

In the grand hall of an Eastern palace stands the master-piece of one of the greatest sculptors who ever lived. The grace and symmetry of form and pose give to the white marble a startling appearance of life. The delicate beauty of

the artist's conception, and the accuracy of the execution are beyond description. A reckless vandal sees the treasure, and deliberately proceeds to deface it, until no trace of its former beauty exists. We look upon such an act with horror akin to that excited by murder or sacrilege. The human body is the master-piece of the divine Architect. How dare any man say he may deface and destroy it if he choose!

The highest type of morality requires obedience to all laws, and ready recognition and acquiescence to their requirements, and sturdy adherence to the right because it is right. The highest type of Christian should include in his creed the religion of the body as well as that of the mind and heart, and should accept for his rule of action a decalogue which recognizes every law essential to the physical and mental as well as the moral welfare of the human being.

ABUSE OF TONICS.

PROBABLY there is no one set of drugs more used among physicians than those designated in the books as tonics. Very many physicians, on finding a patient who complains of general weakness and languor, instead of carefully looking about for the cause of the difficulty, at once order some preparation of iron or strychnia or phosphorus, or some other reputed tonic, or a mixture of several together. The patient feels temporarily better, but soon finds the old symptoms as prominent as ever, and probably drifts off to some other physician to have the same or a similar prescription repeated. A California doctor, whose eyes have somehow been opened, writes to the *New York Record* about a certain class of these cases as follows:—

“The abuse of tonics is most notably seen in rather stout persons over forty years old. Such persons, without any serious organic disease, complain of weakness or fatigue after slight exertion, pains in the limbs, vertigo, and perhaps short-

ness of breath ; and as they are frequently rather pale, tonics and stimulants are prescribed for them. The appetite, and thereby the body-weight, may be increased, but the symptoms complained of remain or are aggravated. Let us take up each symptom and analyze it.

"Normally, fatigue is due, according to late researches of Voit and Pettenkoffer, to an accumulation in the muscle of the products of destructive metamorphosis (lactic acid, creatine acid, phosphate of potassium, sarcosine) produced by exercise, and partly to a decrease of the oxidizable muscular substance. By rest, normally, the blood current washes out these waste products, and the more nearly the blood approaches a standard healthy condition, the more quickly does this take place. The amount of food consumed by an adult should be just what is required to keep up an average body-weight (in proportion to the height), and will vary with the work performed. An excess of food digested and absorbed produces a blood too rich, thick, and imperfectly oxidized. This condition is generally marked by a deposit of reddish urates in the urine when cooling. An addition to the blood in such a condition of large quantities of water (by drinking) enables it to dissolve more easily these waste products of muscle, and so produces a feeling of renewed strength.

"Witness the increase of uterine action in labor after drinking freely of any kind of tea ; the vigor produced in the plethoric or gouty by drinking freely of any kind of mineral water, and using low diet ; the undoubted benefit of the present fashion of drinking freely of hot water has the same explanation. The muscular pains are a slight kind of cramp or muscular rheumatism, which is, as Anstie in his work on neuralgia defines it, '*pain produced in a muscle obliged to work when its structure is imperfectly nourished or impaired by disease.*'

"The short breath depends on a relative insufficiency of the heart's action. The

heart, without being at all diseased, is often incapable of maintaining the circulation properly with its incidental variations. Let us take the example of a man five feet eight inches in height, one hundred and fifty pounds in weight, and let him increase in weight to two hundred pounds while performing a moderate and perhaps a decreasing amount of labor. His heart is unable to propel the blood properly through the area of two hundred pounds of body-weight, involving about twenty-five per cent more work, because the heart muscle has not increased in bulk and vigor at all. If this man's weight had increased while performing hard work, we might be sure that the cardiac muscle had grown in proportion. Any sustained increase of tension of the circulation causes a physiological hypertrophy of the heart. But where the body-weight increases with a decrease of labor, and an increase of food or alcoholic stimulants, we may be sure that there has been no physiological cardiac hypertrophy. The vertigo often met with in these cases may be the result of a cerebral anæmia. This, when conjoined to pallor, is usually an indication for tonics and iron. There is no poverty of the blood or general anæmia ; the surface is pale from insufficient filling of the capillaries from want of heart vigor."

It is evident, as the doctor goes on to remark, that what such a person needs is not medicine, but plenty of good soft water to drink, plenty of exercise, and a restricted diet. These three things will do for him what no tonics or drugs of any sort can accomplish. The exercise will aid elimination, the water will wash out the clogged and dirty tissues, and the restricted diet will prevent to some degree the accumulation of waste products in the body. When doctors recognize the fact that patients, not diseases, are to be cured, they will employ more rational methods than many do who cling to old methods empirically, without thinking or investigating for themselves.

Disease Caused by Mold.—A writer in the *British Medical Journal* remarks as follows respecting mold as a cause of disease:—

“The decomposition of animal and vegetable substances not only gives rise to deleterious and poisonous products, but the decomposing matters form a nidus for the development and growth of many of the lower forms of life, such as bacteria, vibrios, and a great variety of fungi and infusoria. The germs and spores of these microscopic forms of life are always present in the atmosphere, but not so plentifully as to become a source of danger to living and healthy plants and animals; yet weakly plants, insects, fish, and sometimes animals and man, are attacked by them. It is, however, more than probable, that during mild winters, when vegetable decomposition goes on unchecked by frost, and an abundance of fungi grow, and spread out over the whole of the fallen vegetation of the preceding summer, the spores of these fungi, or of certain poisonous molds, are inhaled, and are arrested by the mucous surfaces of the mouth, nose, and pharynx in such quantities as to produce the symptoms of an irritant poison of the fungus class. Moreover, these spores, by giving rise to a fresh growth of fungi on the mucous membranes, add to the symptoms.

“I have long been convinced that many of the cases of intestinal and gastro-intestinal catarrh prevailing in the autumn and spring are due to these products of vegetable decomposition.

“The *Mucor mucedo*, that occurs on bread, preserves, etc., is poisonous. I have known a whole yard of fowls, about four dozen, to be destroyed by being fed on scraps of bread, a great portion of which were moldy. The symptoms shown were diarrhea and drooping, and the fowl died suddenly with convulsive twitchings. Horses have often been made ill and even destroyed by eating moldy provender.

“A case was related to me, some years since, of a little boy’s being seized by an illness resembling measles, immediately after

having some moldy linseed-meal thrown in his face; the sneezing and lachrymation commencing directly after the occurrence, and the rash following. It is also recorded that many of the men in a regiment of soldiers, marching in Canada, and sleeping on musty straw in barns at night, were seized with a like illness.”

Professional Courtesy.—Among physicians, professional courtesy, like charity, sometimes “covers a multitude of sins,”—a fact which undoubtedly stands somewhat in the way of the advancement of rational and scientific medicine. Undoubtedly, the undeserved censure and abuse heaped upon the average physician by rival practitioners and ungrateful patients, serves to fully balance the covering up of short-comings by the friendly professional brethren referred to; but it would be far better for patients, and for doctors in the long run, if there was more honesty in the acknowledgment of both faults and virtues than is generally seen in the relations of physicians with the community. The following story from a Southern journal illustrates in a humorous way the statement with which this article begins:—

“Old Blymer for many years had been subject to frequent domestic broils with his spouse. Ultimately they became so distressing and so oppressive that, to get rid of them, he determined to ‘shuffle off his mortal coil.’ So he filled himself up with laudanum, and went to bed. Mrs. B. discovered what he had done, and began to scream. Soon the neighbors came running in, and as fast as they came were sent off for a doctor. Soon old Dr. Perry came in. He looked at old Blymer, felt of him—‘Dead, came too late,’ and left. Then came old Dr. Newton. He looked at him, rolled him over—‘dead as Hector,’ and he left. About that time young Dr. Smith came rushing in with a great apparatus under his arm, and several feet of hose, which he instantly crammed down old Blymer’s neck, and pumped up the drug store; then reversed his pump,

and flooded him with a few gallons of water, and rolled him about as if he were washing out a whisky barrel. Old Blymer, not being used to taking so much water in him, began to squirm, and draw up, and clutch at the bed-post. The water was then pumped out, and, by morning, he was up and all right, and young Smith left, believing he was the only first-class doctor in all that city. In a day or two he carried over his bill. Old B. said, 'What do I owe you for, young man?'

"'Why, for saving your life the other night.'

"'Well, I didn't ask you to do it,' said B.; 'I never sent for you; old Dr. Perry is my physician, and I shall only pay him.'

"So young Smith went over to see old Dr. Perry to prevail on him to make old B. pay his bill. The old doctor, adjusting his spectacles, said, 'Smith, I have always regarded you as a clever young man, but you did a very foolish thing the other night.'

"'What was that?'

"'Why, sir, did n't I pronounce old Blymer dead?'

"'Yes.'

"'Did n't old Dr. Newton pronounce him dead?'

"'Yes.'

"'Well, that settles it. If you want to succeed in your profession, young man, remember always to observe the strictest professional courtesy, especially toward your seniors.'"

Money Parasites.—It would seem that gold and silver at least ought to escape the reign of tyranny which the family of parasites seems to have established over almost all members of the animal and vegetable worlds, but a German professor has discovered that all old coins are encrusted with a layer of poisonous parasites, which, finding their way into the body, may produce serious disease. Here is what the doctor says about these newly found enemies:—

"When the adherent dirt particles are removed with a perfectly clean (aseptic) knife, and dissolved in distilled water, a sufficiently powerful microscope will at once reveal the bacteria. The dirt sticking to coin seems to offer to these microzymes a soil specially fertile and favorable to their development. Considering the immense circulation of money passing through millions of hands, it may be probable that coins form no small factor in the transfer of zymotic disease."

Cultivation of Eye-Sight.—The alarming increase of eye disease, especially short-sightedness among civilized people, suggests that something should be done for the purpose of checking this tendency toward disease. Short-sightedness is undoubtedly largely the result of habitually using the eyes while looking at near objects, and giving them insufficient practice in looking at objects at a distance. We quote the following paragraph from the *London Times*, which well illustrates the fact that the acuteness of vision for distant objects is very greatly increased by practice. This training of the eye, as well as the other senses, ought to be made a part of every child's education:—

"It is recorded by Humboldt that he was traveling in South America under conditions which rendered it necessary for the party to divide, and to reach their destination by different routes. As he and those who remained with him approached the appointed meeting place, he said to the Indian guide that he wondered what had become of the others. The guide looked at him with some surprise, and pointing across a wide mountain gorge, one side of which they were traversing, replied, 'There they are.' Humboldt himself could see nothing but rocks and verdure, but ultimately, being assisted by the guide as to the position of the other party, succeeded in discovering them by the aid of a telescope; and then, by making the guide describe the order of march and the relative positions of the several

individuals, obtained proof that he actually saw them plainly with his unaided eyes. An experience of equal significance, if of less striking character, may be had in any Highland deer forest, where deer, which are conspicuous to the eyes of the keeper, can only be seen with difficulty and much uncertainty and after much pointing out of neighboring landmarks by visitors who are habitual dwellers in towns. In other words, the acuteness of sight of the average citizen is much inferior to that of the average Scotch forester; while the acuteness of sight of the forester is probably much inferior to that of the savage. People are too prone to accept this as something necessary or inevitable, and to think of the forester or the savage as the possessor of some special acuteness which has been conferred upon him by training and practice, instead of thinking of the citizen as a person who, by reason of unfavorable circumstances, falls short of the acuteness of vision which he ought to possess."

Poison in Clothing.—The *New York Analyst* quotes the following paragraph from the *Philadelphia Press* :—

"It is surprising to find the number of articles in daily use which contain arsenic. It seems to be entering into the composition of nearly everything. It is used foolishly and needlessly in a majority, if not in all cases. I find candy toys colored with it. Articles of clothing are by no means free from it. Green tarlatan has so frequently poisoned the people who use it, that it is seldom used as a part of an article of apparel; but you will see it on the walls at church fairs for an ornament, and it is not uncommon to see strips of it thrown over cakes or candies to protect them from flies. The arsenical pigment so loosely adheres to the cloth that a portion of it will separate upon the slightest disturbance. It is estimated that twenty or thirty grains of the poisonous pigment would separate in an hour from a dress worn in a ball room.

"Foulard cambric contains arsenic, and

wearers of dresses made from it have suffered in consequence from nasal catarrh, pharyngitis, and gastric irritation. Painful irritation of the skin is not infrequently caused by wearing stockings colored with arsenical pigments. Poison is most often found in light red, magenta colored, and brown stockings. Some cases of death from poisoning by this means have been reported. Persons have been fatally poisoned by the green flannel lining in boots, by maroon flannel shirts, by calico shirts, coat sleeves, hat linings, and paper collars. Some manufacturers of paper collars and cuffs introduce arsenic into the finishing in order to impart a brilliant gloss. It has been discovered that the "secret" which so many ignorant laundry women guard so closely, and upon a knowledge of which they rely for producing beautiful polish on linen, is the use of arsenic in the starch."

The paper above quoted in the same issue gives the following account of poisoning by the wearing of colored stockings :—

"William Kraemer, a truckman in the employ of the Long Island Railroad Company at Eastport, had his feet poisoned by wearing colored stockings. His feet became so swollen and painful that he was unable to walk, and last week he was brought to this city, and it was found necessary to amputate both feet to save his life."

A Pig-Tale—Trichinosis.—The *London Lancet* gives the following account of a serious outbreak of trichinosis :—

"On September 11th last a pig was killed by a butcher named Behrens at Emersleben, and according to law, its flesh should have been examined by the district inspector before being used as human food. On September 12th the butcher gave a slice of the meat to two neighbors, who, according to the local custom, chopped it up into a fine mass, spread it on bread, and ate it raw. They both fell ill, and subsequently died. On the

same day the butcher himself mixed the remainder of the meat with that of another animal, and sold the minced compound to his Emersleben customers every day from September 13th to 19th, and all but five of them consumed it in the manner already indicated. As the result, 250 persons were taken ill, and over 40 died. The same mixture was also sold to 42 customers at Deesdorf, 42 being seized with illness and 9 dying. In one family alone, among the total attacked there were four deaths. Other isolated sales of the meat took place, and later on the compound was again mixed with additional fresh pork, and sold to customers, of whom 80 sickened but without fatal result. At first the cause of the epidemic remained a mystery, and it was not until 150 persons had sickened that its true origin was discovered.

The details of the outbreak have been published in Germany, Paris, and elsewhere, the French account being prepared, as the result of local inquiry, and with great care, by Dr. Brouardel. According to his investigations, it would appear that the trichinæ contained in the meat mixture appeared most potent for harm when consumed within about twenty-four hours of the death of the animal, 33 per cent of those who partook of it within that period dying in consequence; also that the activity of the meat for mischief gradually decreased day by day after the first period of twenty-four hours, until, when the sixth day was reached, sickness, without a single death supervened. Sex does not appear to have influenced the results, but, according to the belief of the medical men in the district, children resisted the influence much better than adults, whereas old people suffered most. Whether at Emersleben the meat was really examined before it was consumed, can hardly be ascertained, but it is certain that both the butcher and the inspector partook of some of it, for they both suffered seriously in consequence. Trichinæ were, however, discovered in the minced material at a later stage."

Digestibility of Milk.—A foreign scientist has been experimenting on the digestibility of different foods, by removing the digesting food from the stomach with a stomach pump at intervals after it has been swallowed. According to his experiments, fresh cow's milk digests in three and a half hours; boiled milk, four hours; sour milk, three hours; skim-milk, three and a half hours; fresh goat's milk, three and a half hours.

Parasites from Fish.—Fish are subject to a number of parasites, some of which take up their abode in the human body when fish infected with them are taken as food. Some time ago a physiologist discovered among the yellow perch of Lake Erie, a parasitic worm closely resembling trichinæ. Fish are largely used for food in India, where parasites derived from them are quite common.

—A popular medical editor, who has become disgusted with the empiricism so wide spread in the profession, advises doctors who treat diseases by recipes to consult the quack medicine almanacs, in which will be found "exactly what is good for each disease." He ends his protest against this sort of routine medication by exclaiming "Doctors! what is good for fits?"

—It is reported that a sect has been formed in Southern Russia, with the sole object of poisoning children with narcotics. Manufacturers of Mrs. Winslow's Soothing Syrup are certainly entitled to become honorary members of this strange organization.

—Prof. Virchow, of Berlin, thinks the German government ought to put a stop to the raising of swine in Germany, the danger of poisoning by trichinosis having become so great. The disease is said to be much more prevalent among the hogs in Germany than in America.

DOMESTIC MEDICINE.

Collodion in Erysipelas.—An exchange suggests the application of collodion with iodoform in erysipelas. We have employed collodion without iodoform with equally good results. The benefit derived from the remedy, which is very marked indeed, seems to be due to the pressure exerted upon the swollen tissues by the contraction of the collodion. It should be painted on in a sufficiently thick layer to make a white appearance in the reddened tissues when it contracts.

To Relieve Nosebleed—The following is offered as an excellent method of relieving this often troublesome, and sometimes dangerous, malady: Apply hot water to the feet, ankles, hands, and wrists, and at the same time have another person apply napkins wet in cold water to the throat and neck.

The Tongue in Health and Disease.—Dr. A. W. Wallace (*Midland Medical Miscellany*) gives the following condensation of Dr. Beale's remarks on the tongue, as contained in his admirable little work on slight ailments:—

“A healthy tongue is best known by negative characters rather than by what it is. In order, therefore, to define the healthy tongue, the following conditions are to be excluded: First, the creamy white tongue, which denotes unremoved epithelium and metabolism of tissue in abeyance. Secondly, the furred tongue, in which the papillæ are elongated, and to which the epithelium adheres in long threads; this tongue is characteristic of inflammation. Thirdly, the pale, sodden, tooth-marked tongue, which is indicative of anemia. Fourthly, the red tongue (*a.*) with enlarged papillæ, as seen in the ‘strawberry tongue’ of scarlatina; (*b.*) the smooth and glazed, as in the ‘irritable tongue,’ which corresponds to the irritated mucous membrane elsewhere, as in the lung from phthisis, or intestines from diarrhea. Fifthly, the dry, brown tongue, pathognomonic of the typhoid state, in which blood exudes and dries on its surface, the secretion of saliva being *nil*. Sixthly, the aphthous tongue, which is often followed by ‘punched out’ ulcers. This condition of the tongue is not particularly significant of any constitutional disturbance.

It is more properly a local affection, and is to be treated with the chlorate of potash. And seventhly, the red, fissured tongue, which is generally called syphilitic. Dr. Beale, however, says that this is not necessarily syphilitic.”

Wry Neck.—In this troublesome nervous affection, sometimes termed torticollis, the ear of one side is drawn toward the collar bone, twisting the head by contraction of muscles of one side of the neck. The muscular contraction may be continuous or spasmodic. In some cases both sides are affected, causing the head to nod spasmodically on drawing it forward upon the chest. Contractions of the muscles of the neck are



sometimes accompanied with spasms of the face. The causes of the disease are quite obscure. In some instances it may be attributed to exposure to cold. It may also arise from diseases of the vertebræ of the neck.

The disease sometimes resists the most energetic treatment. The majority of cases, however, can be relieved, and in time cured. Experience shows the best remedies to be the application of electricity to the muscles of the sound side, division of the affected muscle, and the wearing of such an apparatus as is shown in the accompanying cut.

Cramp.—This term is applied to a sudden spasmodic contraction of a single muscle or set of muscles. It most frequently occurs in the calf of the leg. It sometimes extends to the whole body. It is often very painful. In many cases the spasm is preceded by a crawling or tingling sensation, or stiffening of the parts affected.

Treatment.—When the cramp is confined to a single muscle, as in cramp of the leg, it may be relieved by simply grasping the muscle and pressing it with considerable force.

A gentleman who was much troubled with this peculiar affection, and to whom we recommended compression as a remedy, had made for the purpose, two straps, furnished with a buckle at each end, which he always carried with him. Whenever he felt the first symptoms of attack, he would apply the straps to the calves of the legs, where the cramp always began, buckling them as tightly as possible. The application of heat and cold to the spine, with fomentations to the affected part, are useful measures. When the cramps extend to various parts of the body, a general warm bath will usually afford relief. Some cases are best relieved by application of ice to the spine. Ice may be applied by the ice pack, or by rubbing a piece of ice, inclosed in a piece of muslin, up and down the spine. The patient should be kept as quiet as possible, as the least motion will often induce a return of the spasms after they have ceased. Gentle manipulation of the affected muscles, if very cautiously performed, will sometimes relieve the tendency to spasm.

Inactivity of the Bowels.—This abnormal condition of the digestive apparatus has been called a disorder of civilized society, constipation being most rare among savages. It is also rare among domestic animals, unless, like their masters, they live indolent lives, and feed upon unwholesome food. The chief causes are a concentrated diet, consisting largely of rich and unwholesome foods, and deficient physical exercise. The results of this abnormal condition are frequently seen in the persistent headaches, confusion of thought, want of appetite, and general languor, of which sedentary persons and high livers frequently complain.

The cure consists in the employment of a simple dietary, consisting chiefly of fruits and grains; the disuse of fine or bolted flour, for which substitute coarse grain preparations; the free drinking of water, not at meal time, but

one or two hours before, and in quantity amounting to six to ten glasses daily; and an abundance of muscular exercise in the open air. A wet bandage worn about the abdomen and covered with a dry flannel, is an excellent means of increasing the secretion; and constipation is due to a deficiency of fluid in the alimentary canal. If the condition is due to a want of activity in the extremity of the lower intestines, and the loss of natural prompting to relieve the bowels, it may often be relieved by the injection into the rectum of half a gill of cold water just before retiring at night, or half an hour after breakfast. If a greater degree of stimulation is required, add five or ten drops of spirits of camphor to the water, or a teaspoonful of common salt.

Ice-Water in Typhoid Fever.—Physicians who, a few years ago, would certainly have shuddered at the thought of touching a typhoid fever patient with cold water, have recently adopted most heroic measures in controlling the high temperature, which is one of the most dangerous conditions of this disease. In a clinical lecture by Prof. DaCosta, at the Pennsylvania Hospital, the lecturer exhibited a typhoid fever patient, whose temperature had risen unusually high, and was not affected by the large doses of quinine administered. As there was no bath-room convenient for the immersion of the patient in cold water, the doctor ordered the chest and abdomen to be covered with cloths wrung out in ice-water, and as a result, the temperature soon fell from 104° to $101\frac{1}{2}^{\circ}$. Undoubtedly, cold water is one of the most useful of all measures in this disease. It will certainly control the high temperature much more satisfactorily than quinine or any other drug.

Cold Packs in Diphtheria.—The *Medical Bulletin* gives the following report of the method by which an Italian physician treats diphtheria:—

“An Italian doctor, who accepts the theory that diphtheria is an acute, infectious, general disease, with a tendency to produce local symptoms, has a method of treating it which has been highly successful, and which consists in wrapping the patient in a cold, wet sheet, and repeating the packing three or four times a day, according to the height of the fever. Cold compresses are kept continually at the throat. He uses gargles of the alkaline sulphites, carbolic acid, etc., as disinfectants, but never caus-

tics. In 1875 six cases so treated all recovered. In 1879 seven cases so treated all recovered, the disease lasting on an average ten days. This treatment is well borne and much liked by the patient."

This is certainly not new to many of our readers who have employed the same measures with great success in combating this grave disease. In addition to the treatment, he employed stimulants, which one would naturally expect where wine is used as freely as water in this country, or as beer in Germany. We have found equally good results from the employment of the tepid wet sheet, and in some cases have often preferred to use hot packing instead of cold, depending upon the after-effect of the hot application in reducing the temperature.

Fits in Children.—Convulsions, or "fits," are justly regarded with the greatest anxiety by the watchful mother. They may result from many causes, as malaria, teething, fright, anger, worms, and most acute diseases; but the most common causes are indigestion and over-feeding.

When a child has a fit, notice first whether the face is pale or purple. If pale, apply warm cloths to the head, or hold the child with the head downward. If the face is dark or purple, put in a warm bath at once, and apply cold to the head.

Bile and Indigestion.—Falk, a foreign physician, has been investigating the influence of the bile upon fermentation, and finds that when added to yeast, it soon destroys its activity, and hence acts as a preventive of fermentation. This explains the reason why an inactive state of the liver is so likely to be attended by flatulent dyspepsia, from the decomposition of the sugar and starch elements of the food through fermentation.

To Cure a Carbuncle.—An obstinate carbuncle may be successfully treated as follows, according to Dr. R. H. Johnson:—

Sprinkle on the sore surface as much powdered tannin as will dissolve. Twenty-four hours later wash off the tannin with castile soap and water, and re-apply the tannin.

Cold for Colic.—A foreign physician recommends the use of the cold douche to the abdomen in cases of colic, instead of hot applications, which are most commonly employed. Cold applications may be worth a trial in cases which do not yield to hot.

Poisoning from Indigestion.—A French physician has recently called attention to the fact that severe poisoning sometimes occurs from the absorption of putrescent matters formed by the decomposition of animal foods in the intestines in cases of indigestion. In cases of disease of the liver and kidneys, the danger from this source is greatly increased, as the poisons are not eliminated from the blood as rapidly as in health. Undoubtedly, many of the symptoms arising from dyspepsia are due to the absorption and circulation in the blood of various poisonous substances produced by indigestion.

Question Box.

Capacity of the Stomach—Digestion of Milk—Bran—The Abdominal Bandage.—An invalid inquires as follows:—

1. What is the capacity of the human stomach?

2. Is milk, coagulated before it is taken into the stomach, easier of digestion than uncoagulated milk?

3. Is bran an irritant to an inflamed or tender stomach, and will it excite the flow of gastric juice if taken half an hour before meals?

4. How should an abdominal bandage be prepared, and how long worn?

Ans.—1. About three pints.

2. In certain cases of dyspepsia, milk, when taken as a food, is at once coagulated into large and hard masses, which remain in the stomach a long time before complete digestion takes place. In such cases, milk is more easily digested if coagulated when taken into the stomach.

3. Bran is not food, and should never be taken by a person whose stomach is sensitive, as indicated by tenderness at the pit of the stomach, or just above the lower end of the breast bone. We cannot recommend its use for the purpose of exciting activity of the stomach, as it would be likely to do harm.

4. Wring out of cold water a towel about two yards in length. Wring sufficiently dry so it will not rub. Wind around the body, and cover with three or four thicknesses of dry flannel. Apply just before going to bed, and remove in the morning, rubbing the body with the hand dipped in cool water; dry thoroughly, and apply in place of the bandage a strip of dry flannel, this bandage to be worn during the day. The abdominal bandage may be used in this way without injury for many months, but if worn continuously day and night, irritation of the skin is likely to be produced. When this is the case, the bandage should be removed until the skin recovers.

Day Sleep.—A patient inquires whether sleeping in the day-time, providing sleep is taken regularly, and for a proper number of hours, is as beneficial as sleep taken at night.

Ans.—Night is the natural time for sleep, and it is hardly supposable that the order of nature can be reversed without some injury resulting. The cause of sleep is not thoroughly known, but it is generally believed that it is due to nutritive changes in the brain, especially as to the amount of oxygen in the brain tissues. It is also supposed that the physical condition of the earth and air, which are different at night than in the day-time, have something to do with sleep. The experience of night-watchmen who are engaged at night work, is that after some months or years the health becomes materially impaired. It is possible, however, that by special care of the health, a person might depend upon sleep in the day-time for a long time without suffering special injury.

Lime-Water.—The question is asked: "When is lime-water useful?"

Ans.—Lime-water is useful as a remedy in diarrhea of children which is accompanied by green and sour stools, in which indigested curds appear. It may be added to milk in the proportion of one to three tablespoonfuls to a half pint of milk. Barley-water usually answers equally well in these cases.

Lime-water is also of service in cases of dyspepsia in which milk disagrees in consequence of a tendency to acidity. Cows' milk is often slightly acid, from being a little old, or in consequence of some condition of the system of the cow. When this is the case, the milk is liable to form in hard and large curds in the stomach, which are difficult to digest. Lime-water is beneficial in preventing the formation of these large curds.

Rest after Eating—Exercise after Eating—Fruits and Vegetables.—Inquiry is made as follows:—

1. Is it best for any one to lie down immediately after eating? Is it best to *sleep* at such times?

2. Should violent exercise be taken immediately after eating?

3. How soon after eating may violent exercise be taken?

4. Should fruits and vegetables be eaten at the same meal?

Ans.—1. Very feeble invalids are often benefited by resting for half an hour or so after a meal, though they should not allow themselves to sleep.

2. Violent exercise should never be taken immediately after eating.

3. Moderate exercise may usually be taken by most persons without injury very soon after eating. Violent exercise should not be under-

taken for at least an hour by persons in health, and two or three hours should elapse if digestion is slow.

4. Well persons experience no inconvenience from the use of fruits and vegetables at the same time, but persons suffering with slow digestion and acid dyspepsia will find it well to avoid combining them at the same meal.

Fresh Water in Towns.—The great liability to contamination of water, leads many in crowded towns and cities to ask the question, "How may water, not liable to contamination with dangers and impurities, be obtained?"

Ans.—Every large town and city ought to be supplied by water-works, with water from an abundant and pure source. In towns not thus supplied, good water may be obtained by means of drive-wells which are carried down some distance into the solid rock. What is known as the second water should be reached when possible.

Removal of Enlarged Glands.—The question is asked: "Would you advise removing scrofula kernels (fatty or enlarged glands) by the knife?"

Ans.—As a rule, the removal of enlarged glands only temporarily relieves the patient, as other glands in the vicinity must undergo this morbid change, and an attempt to accomplish a cure by this means becomes a very tedious matter, requiring many operations. In case the glands are enlarged so as to produce serious inconvenience or deformity, removal is entirely proper, and is not likely to be followed by any dangerous results.

Fruit, Grain, and Milk Diet.—The question is asked, "Will a diet of fruit, grains, and milk give sufficient nourishment to build up the system?"

Ans.—A fruit, grain, and milk diet contains all the elements of nutrition, and in simple form, and easy of digestion. We know of no food better calculated to nourish and build up the body than this. Of course, much depends upon the individual case. If a person is suffering with acid dyspepsia, and cannot easily digest the diet named, he will derive insufficient nourishment from it, and should take other food.

Hot-Water Drinking.—Can any injury result from the drinking of hot water in large quantities?

Ans.—Yes; it is possible to overtax the stomach with hot as well as with cold water, but not so easily. The kidneys may also be overtaxed. Six to ten glasses a day is usually about the limit to which hot water can be used with benefit, though in particular cases, much larger quantities may be used for a short time with benefit.

SCIENCE IN THE HOUSEHOLD.

CONDUCTED BY MRS. E. E. KELLOGG.

ASPARAGUS.

THE asparagus, which in its wild state is a sea-coast plant, is a native of Europe. The young shoots form the edible portion. The plant was known to the ancient Greeks and Romans, who not only used it as a table delicacy, but considered it very useful in the treatment of internal diseases. Roman cooks provided themselves with a supply of the vegetable for winter use, by cutting fine heads and drying them. When wanted for the table, they were put into hot water and gently cooked.

The asparagus is remarkable as containing a crystalline alkaloid, called *asparagin* which is thought to possess diuretic properties.

General Rules for Preparation and Cooking.—Select fresh and tender asparagus. Those who raise their own will have little difficulty in this direction, unless they allow too long an interval between the cutting, so that the stalk becomes hardened and tough. Those versed in the cultivation of asparagus assert that it should be cut at least three times a week, and only barely to the ground. If it is necessary to keep asparagus for some time before cooking, stand it tops uppermost in water about one-half inch deep, and place in the cellar or some cool place until needed.

Take each stalk separately by the base and swash back and forth in a pan of cold water till perfectly free from all sand, then break off all the tough portions, cut into equal lengths, and tie into small bunches of half a dozen or more, according to size, with soft tape, and drop into boiling water, to which salt may be added if desired. Use only sufficient water to barely cover the asparagus, and simmer gently until perfectly tender.

If the asparagus is to be stewed, break (not cut) into such pieces as far as each stalk can be broken. When it will not snap off quickly, the stalk is too tough to be used.

Asparagus must be taken from the water *just as soon as tender*, while yet firm in appearance. If boiled soft, it loses its flavor, and is uninviting if mushy. It is a good plan, if the stalks are not perfectly tender, to boil the hardest portions first, and add the tenderest points after a few minutes.

Time.—The time required for boiling asparagus depends upon its freshness and age. Fresh, tender asparagus cooks in a very few minutes; so quickly, indeed, that the Roman emperor, Augustus, when wishing to intimate his wish that any affair might be concluded without delay, was accustomed to say, "Let that be done

quicker than you can cook asparagus." Fifteen or twenty minutes will suffice if young and fresh; if old, from thirty to fifty will be required.

RECIPES FOR COOKING ASPARAGUS.

Asparagus in Bunches.—Thoroughly wash the stalks, and tie in small bunches with a soft tape. Drop into boiling water, which, if desired, may be slightly salted. When tender, drain thoroughly in a colander, and serve on a hot dish, or on slices of nicely browned toast, with a sauce prepared as follows: Heat a half cup of cream to boiling, add salt if desired, and turn it very gradually, stirring continuously, over the well beaten yolk of an egg. Let it boil up once only, and pour over the asparagus.

Stewed Asparagus.—Wash, break into inch pieces, simmer till tender in just sufficient water to cover. Add sufficient rich milk, part cream if it can be afforded, to make a gravy for the whole. Thicken slightly with flour, a teaspoonful for a pint of milk will be sufficient, add salt if desired, boil up together once, and serve.

Asparagus and Peas.—Asparagus and green peas make a nice dish served together, and if of proportionate age, require the same length of time to cook. Wash the asparagus, shell and look over the peas, throw together into boiling water, cook and serve as directed for stewed asparagus.

E. E. K.

Sunny Rooms Make Sunny Lives.—Let us take the airiest, choicest, and sunniest room in the house for our living-room,—the work-shop where brain and body are built up and renewed; and there let us have a bay-window, no matter how plain in structure, through which the good twin-angels, sunlight and pure air, can freely enter. This window shall be the poem of the house. It shall give freedom and scope to the sunsets, the tender green and changing tints of spring, the glow of summer, the pomp of autumn, the white of winter, storm and sunshine, glimmer and gloom,—all these we can enjoy as we sit in our sheltered room, as the changing years roll on. Dark rooms bring depression of spirits, imparting a sense of confinement, of isolation, of powerlessness, which is chilling to energy and vigor; but in light is good cheer. Even in a gloomy house, where walls and furniture are dingy brown, you have but to take down the dingy curtains, open wide the window, hang brackets on either side, set flower pots on the brackets, and ivy in the pots, and let the warm air stream freely in.—*Sel.*

Care of Carpets.—An exchange offers the following sensible advice about carpets: Once a month all Brussels carpets in daily use should be treated to corn meal and salt. Mix a small handful of salt to every quart of corn meal; dampen it very slightly, sprinkle over the carpets, and sweep thoroughly. It will remove dust and coal smut, and brighten the colors wonderfully. When the spring and fall cleaning is done, have the carpets well swept, then sprinkle with corn meal and salt, and rub one width at a time with clean cloths, which should be changed when soiled. The ingrain and three-ply carpets should be well shaken, the spots washed in a pail of clean, warm soap and water, then rinsed and dried. When they are tacked down, wipe them all over with a flannel cloth wrung from hot water.

Kitchen Garbage.—A writer in the *Sanitary News* makes the following excellent remarks respecting the disposal of waste accumulating from the preparation of foods:—

“The suggestion was recently made in a morning paper that all kitchen refuse should be burned at once, and the health department was quoted as recommending this plan. The article called forth a reply from a correspondent who said the plan was wholly impracticable, as in many houses the kitchen stoves are replaced by oil or gas stoves during the summer, and that in a majority of houses people could not afford to keep a bright fire after the meals were prepared for the disposal of refuse. The removal of the kitchen stove means, in many families, the removal of the only means of heating the house during the warm weather, and is a most foolish and dangerous proceeding. If it is done to obtain more room, as the writer affirmed, it would be much better to give up the parlor or the dining-room. In view of a possible epidemic, people should be made to understand that heat is the best purifier, and the kitchen stove can be made to answer the purpose of cooking, heating in the damp mornings, and disposing of garbage, at a small expense above the oil stoves. If the stove is not used, it should be left in place for the purpose of burning the waste matter. The market papers and scraps that are picked up every day about the house will serve to kindle the fire, and if the dampers are opened, the work can be quickly done without any perceptible odor. It is not necessary to keep a clear, hot fire for the work, if a little thought and care are taken in the beginning. I have in one end of my sink a wire dish-drainer, into which all the potato-parings and cuttings from vegetables are put. If they are wet, the water quickly drains from them, and they are ready to put into the stove, where even a little fire soon reduces them to harmless ashes. A pan may be kept for such waste matter in the warming-oven, or even on the back of the stove, when it is not in the way; and few people know how much material for a good hot fire there is in a pan of potato-parings. This method will not take half the time and steps that it does to carry the refuse to the alley, but it will take a little thought until it becomes

a habit, which, once formed, no housekeeper will ever give up for the dangerous and untidy one of pouring slops, scraps, and the general debris of the household into a decaying, unsightly heap on the ground, where it is likely to remain long enough to diffuse its poison through the house by means of the back windows.”

To Detect Alum in Bread.—Alum is not infrequently used in bread-making for the purpose of giving a better color to the loaf. It has the property of enabling the baker to make a white, handsome loaf from very poor flour. The *Journal of Trade* gives the following simple mode of detecting the adulterant:—

“Persons can test the bread they buy for themselves, by taking a piece of the bread and soaking it in water. Take this water and mix it with an equal part of fresh milk, and if the bread contains alum, the mixture will coagulate. If a better test is required, boil the mixture, and it will form a perfect clod. Begin and Barbier, French chemists, say the continued use of alum in edibles produces a cough, and affects the bronchial tubes, often with very serious results. Prof. Lervin says: ‘After the frequent use of alum in extremely small doses, it has been observed that gastric symptoms result, producing loss of appetite, nausea, and gastritis.’

“‘Alum,’ says Dr. Von Klein, of Columbus, ‘has a tendency to irritate the organs of the stomach. If alum is introduced into the stomach, and it does not meet with sufficient mucous membrane, the stomach will positively be more or less affected, and this in the course of continued abuse is necessarily injurious.’ An easy and simple plan to detect alum in baking-powder, is to dissolve a teaspoonful or more in an equal amount of milk and water. Boil a few minutes, and if the powder contains alum, a curd will at once form.”

To Wash Flannels.—To wash flannels so as to have them soft and pliable instead of hardened into wooden boards, requires skill on the part of the washer. Science tells that the oil of perspiration remaining in flannels should be removed before soap is applied, or a combination is formed with the soap that hardens the flannel instead of softening it. To remove this oil, soak them, previous to washing, for at least half an hour in soda-water, moderately strong. After this they are easily washed, and remain soft.

Put all the soap used for flannels *in the water*. Hot water is best for washing and rinsing. They should be well wrung and shaken before they are hung to dry. Always wash flannels by themselves; for if done in the suds used for cotton clothes, the white fluff of the cotton works into the wool, and spoils their appearance.

Dark Clothes.—When starching dark clothes, color the starch with coffee, and they will be much improved in appearance, as white spots frequently show on the goods when white starch is used. Dark clothes should be turned wrong side out to dry, or hung in the shade, so as to prevent fading the colors.

Cleaning Brass.—Brasswork that is so dirty by smoke and heat as not to be cleaned with oxalic acid, should be thoroughly washed and scrubbed with soda, or potash water, or lye. Then dip it in a mixture of equal parts of nitric acid, sulphuric acid, and water; or, if it cannot be conveniently dipped, make a swab of a small piece of woolen cloth upon the end of a stick, and rub the solution over the dirty or smoky parts. Leave the acid on for a moment, then wash, clean, and polish.

Literary Notices.

GOOD HOUSEKEEPING is the title of a new aspirant for public favor in the line of semi-monthly journalism. It has, pre-eminently, a field of its own, no other journal of its kind being published; and a broad and fruitful field it is, indeed. *Good Housekeeping* has some solid material among its foundation stones. For instance, it says in its announcement that "Our homes are what we make them,—good, bad, or indifferent; and their precepts and practices are necessarily more or less sharply defined, intensified and demonstrated in our own individual lives. They are the fortresses from which the battles of life are really fought,—the embrasures from which are fired 'the shot heard around the world,' with more telling effect for weal or woe than any other worldly actions known to humanity. Good housekeeping makes good homes, speaking after the manner of men. Tolerably good housekeeping makes tolerably, and never more than tolerably, good homes. Poor housekeeping produces only poor homes. Grapes are never gathered from thorns, nor figs from thistles, along the highways and byways of mankind's domestic heritage." Published by Clark W. Bryan & Co., Holyoke, Mass. Subscription price \$2.50 per annum.

THE POPULAR SCIENCE MONTHLY: Published by D. Appleton & Co., New York. Terms 50 cents a number, or \$5.00 per annum.

Readers of *The Popular Science Monthly* can be quite sure of their money's worth in the May number, which is full of articles rich in thought and information on living questions of the day. The first paper, "Our Recent Debts to Vivisection," by William W. Keen, M. D., is a graphic account of the benefits that have been conferred upon humanity during the last quarter of a century, by means of experiments on animals. There are no strained constructions in the argument, and the numerous examples given cannot easily be explained away. The second article, by Professor W. K. Brooks, is a highly significant answer to the very interesting question that intelligent people have long been asking, "Can Man be Modified by Selection?" Dr. Max von Pettenkofer's valuable and timely papers on "Cholera" end in this number, with the fourth of the series, which is mainly devoted to the subject of pre-

vention. "A Scientific View of the Coal Question," by G. Gore, and "Training in Ethical Science," by Mr. H. H. Curtis, are able articles, deserving the attention of all who are concerned in the management of the young, and interested in the subject of educational improvement. The present installment of "The Chemistry of Cookery" is devoted to vegetarianism, which Dr. Williams commends on rather novel grounds, that need not, however, offend the meat-eaters.

It is a curious fact that one of the most famous poems in our language appeared originally in a magazine that seldom touches poetry at all, and the same periodical, after an interval of sixty-six years, now brings out another poem very similar in theme. Bryant's "Thanatopsis" was first printed in the *North American Review* for September, 1817. The May number of the *Review*, just out, has a poem by Robert Buchanan on "The New Buddha." The critics found fault with Mr. Bryant's poem on the ground that it was un-Christian; it remains to be seen what they will say of Mr. Buchanan's. The question, "Has Christianity Benefited Woman?" is ably discussed in this number by Mrs. Elizabeth Cady Stanton and Bishop J. L. Spalding. President J. L. Pickard writes on "Why Crime is Increasing," and David Dudley Field on "Industrial Co-operation," while Prof. Andrew F. West, of Princeton, contributes an article of great clearness and strength on "What is Academic Freedom?" James Payn, the English novelist, discusses "Success in Fiction," and T. F. Thielton Dyer, "Superstition in English Life." The new department of Comments keeps well up to the standard with which it started.

THERE will be issued by the New England Publishing Co., Sandy Hook, Conn., during the month of May, a book entitled "Berlin as a Medical Center," by Horatio R. Bigelow, M. D., of Washington, D. C. This book will be a complete and accurate medical guide to Berlin, giving instructions in reference to board, clinics, lectures, expenses, etc., and all information that will be necessary for the medical student abroad. The price will be \$2.00.

THE publication of a new journal under the name of *The Universal Benefactor* has been commenced. It is published in the interest of the American Society for the Prevention of Adulteration of Foods. Its purpose is to teach the people the evil effects of adulteration, and to prevent it by every means possible. The object is certainly a very worthy one, and if the number before us is a fair specimen of the journal, we can commend it as a most valuable and interesting paper. Subscription price \$1 per annum. Published at 730 Samson St., Philadelphia.

MATTER AND SPIRIT; OR THE PROBLEM OF HUMAN THOUGHT: By D. M. Canright. Review and Herald, Battle Creek, Mich. 66 pages, pamphlet form. Price 10 cts.

Publisher's Page.

In the March number of GOOD HEALTH, in Mrs. Kellogg's article on the New Orleans Exposition, the Editor inserted in brackets a note to the effect that the managers of the Exposition had insisted upon the removal of the fountain, which the ladies of the W. C. T. U. had placed in their department to supply water to visitors. The statement was based upon the information received from a gentleman who was just from the South, and who had met on the cars one of the managers of the W. C. T. U. department at the Exposition, who, according to the gentleman's statement, gave the facts substantially as stated in the note referred to. We are glad to learn that we were misinformed, though we are unable to discover where the fault lies, and take this opportunity to correct the error.

The Sanitarium has seldom enjoyed so great a degree of prosperity at this season of the year as at present. Notwithstanding the great addition to its buildings by the erection of the large new structure last year, the managers have already begun to inquire where they can put the additional patients who will visit the institution during the summer months.

Numerous improvements are being made in the grounds, especially in the rear of the Main building. The Sanitarium is now thoroughly known in all parts of the U. S., and the claim of its managers that it is the largest establishment of its kind in the world, remains unchallenged, as well as their claim that its facilities and advantages for the treatment of those suffering with all the various forms of chronic diseases, are unrivaled.

Subscriptions continue to pour in from all parts of the country, showing that the friends of the journal are actively interesting themselves in introducing it among their friends. The journal now makes regular visits to almost every country of the globe, and its circulation and influence is constantly widening. Thanks to the intelligent and untiring efforts of its friends to extend its circulation. The managers hope to be able to increase the interest in the journal from month to month, and to render it so valuable to each subscriber that he will feel at the end of the year that he cannot possibly do without it.

Hygiene in North Carolina.—On the way home from a visit to the South, the Editor and Mrs. K. spent two very pleasant days at Greensboro, N. C., where they had been invited by Mrs. Hobbs, Supt. of the Department of Hygiene for the Woman's Christian Temperance Union of that State, to hold a Hygienic Normal. Greensboro is one of the oldest and most enterprising towns in North Carolina, and contains, among other institutions, one of the oldest denominational schools in the State, a Ladies' Seminary, which has been in operation for nearly half a century. At New Garden, six miles distant, is located a Friends' school and academy for young men and women, which was established in 1837, and has constantly increased in prosperity until the present time, being now regarded as one of the best educational institutions in the State. The able Department Supt., Mrs. Hobbs, had stirred up such an interest in the subject that the very first session, held at 9:30 Tuesday morning, was largely attended; and with each subsequent session, of which three were held daily, there was an increase of numbers, until, at the last evening session, the large hall was crowded with intelligent and attentive listeners.

The following paragraph is from a lengthy article, relating to the Normal, published in one of the city papers:—

Each session of the Hygienic Normal was well attended by the most intelligent and cultivated of our people, ladies and

gentlemen. Many went through curiosity, and fully prepared to laugh at and criticize all they should hear. Such people became convinced that they were where they could hear much to instruct and improve, touching the most important of all worldly interests—HEALTH. The subject is not new to thinking and observing people. The scope of discussion and application of hygiene held it up in a more tangible shape, and in a more purely practical form and every-day light, than we are ordinarily accustomed to. Living up to such teaching, every housekeeper and mother can apply hygienic rules, and begin to feed her loved ones in a more wholesome and sensible way than most people live.

One of the most interesting features of the Normal was the great interest taken in the matter by the young people. Large numbers of boys and girls from ten to sixteen years of age were in attendance at nearly every session, and were among the most patient and attentive listeners. The children of the public schools were given a half-holiday, to enable them to attend the lectures, and the second day, the Friends' school at New Garden gave their 130 scholars a holiday for the same purpose. The managers of the Young Ladies' Seminary requested the reservation of one hundred seats for the last lecture, which were filled with the students from the school, who listened with interest, and we trust with profit. We have never found a more intelligent and appreciative audience than at Greensboro, and the interest shown in the subject of hygiene from the very first speaks well for the enthusiasm and interest of the capable Supt. of the Department, who, though too ill to attend the session of the Normal herself, had so thoroughly agitated the subject beforehand, and so carefully perfected every arrangement, that a thorough success was from the first assured.

THE publishers of the "Home Hand-Book of Domestic Hygiene and Rational Medicine" have recently issued a new edition of this large work which has met with a very extensive sale during the last five years.

The table of contents of the work has been considerably increased, though its actual bulk has decreased. It is printed on finer and more compact paper, so that, though a large amount of new matter has been added, the book is actually smaller in size than before. It now numbers 1624 pages, and a large number of colored plates.

This is acknowledged the most comprehensive work on the hygienic and rational treatment of the sick ever published in this or any other country. It is a complete encyclopedia of what everybody ought to know about health.

The work is beautifully and substantially bound in muslin and leather, and though containing a considerable larger amount of matter than before, and one additional lithographic plate, the publishers offer it at a lower price than that for which the first edition was sold, namely, \$6.00 for muslin style and \$7.00 for leather. The prices are so low, when compared with the benefits to be derived from such a work, that no family can afford to do without it. The work has met with a rapid sale wherever it has been introduced by intelligent and competent agents, and the person engaged in the sale, can at least have the satisfaction of feeling that he has placed in the hands of the people a work which will do a vast amount of good. Parties who may wish to purchase the work or engage in the canvass for it, should address,

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