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THE PURIFICATION OF WATER.

As impure water is so abundant, and pure natural water often so limited, it is important that simple and efficient means for the purification of water be generally understood and adopted. Some waters are so impure that no attempt to render them wholesome can be successful, at least sufficiently so to render their use safe or justifiable. Water which contains consid-

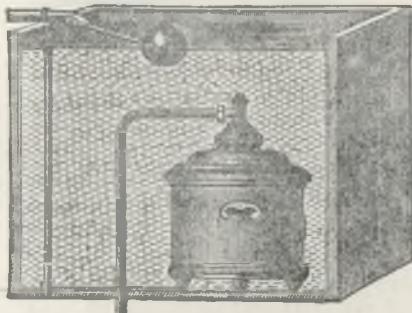


FIG. 1. A Reservoir Filter.

erable quantities of sulphate of lime or magnesia, mineral waters, and water which is badly contaminated with sewage, or the drainage from cesspools, vaults, or barn-yards, are of this class.

TO REMOVE TURBIDITY.

The fine particles often suspended in water obtained from rivers are usually of the nature of fine sand or finely divided clay. The greater share of the suspended particles will be deposited as sediment if the water is allowed to settle for a day or two. A quicker way of clearing such

water is to add to it a small quantity of alum, decoction of logwood chips, or the white of egg, stirring well and then allowing it to settle for a few hours.

TO REMOVE ORGANIC MATTER, COLOR, AND FOUL GASES.

Organic matter is by far the most serious impurity usually found in potable waters, and upon its entire removal, more than upon anything else, depends the suc-

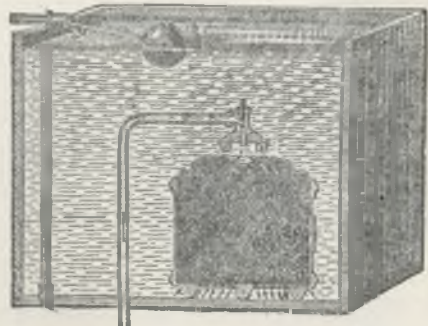


FIG. 2. Same as Fig. 1, but showing Filter in Section.

cess of any method of purification. The methods described for removing turbidity will also in some measure remove the impurities mentioned in this paragraph, but by no means thoroughly. Boiling accomplishes much more, by expelling the gases and destroying the poisonous properties of the organic matter, and in some degree precipitating it. A solution of permanganate of potash may be used for the same purpose, a strong solution being added to the water contained in a convenient vessel and stirred thoroughly. The solution should be added drop by drop so long as

its color changes in the water from a faint pink to a brown or yellowish color. Examinations may be made from time to time by placing a clear white glass goblet full of the water undergoing purification, in the middle of a sheet of white paper, and placing beside it a goblet of pure water faintly tinted with the permanganate solution, and viewing the two solutions in a clear light. As soon as the pinkish color begins to appear in the water, it should be allowed to stand an hour or two, after which it should be examined again, and the operation repeated, if necessary, until the pink color remains permanent.

FILTRATION.

The methods above described are, of course, only adapted to waters which contain but a very small proportion of organic



FIG. 3. Simple Form of Filter, for household use. *a.* Water-pan, or reservoir; *b.* Sponge; *c.* Jug to receive filtered water; *d.* Gravel; *e.* Charcoal; *f.* Faucet.

or suspended matters. The only really efficient mode of purifying water, at least on any but a very small scale, is filtration. There are various forms of filters, of different degrees of efficiency. The chief filtering mediums are sand, spongy iron, and charcoal. Sand removes only the suspended matters. Spongy iron removes a small proportion of the organic matter, but impairs the water by impregnating it with iron. Charcoal removes the suspended matters, a great share of the organic matters, and animalcules and other low forms of life. Vegetable charcoal is very efficient, but animal charcoal is much more so. The filtering medium is em-

ployed either loosely packed or made into solid blocks or slabs. The water is filtered by being made to pass either downward or upward through the filtering material, the upward method being generally considered the most desirable, as filters constructed on this plan will last longer than those in which by the constant downward action the water becomes foul sooner with suspended impurities.

The superior purifying power of charcoal is due to the oxygen which it contains, condensed in its pores in very active form, by which the organic elements are oxidized, or burned up, and thus rendered harmless. Charcoal possesses the property of condensing in its pores a large amount of oxygen, the amount varying with each variety of charcoal, according to the fineness of the grain of the wood

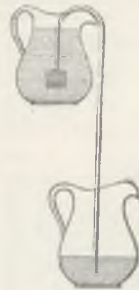


FIG. 4. Pocket Filter, arranged to use as a Siphon.

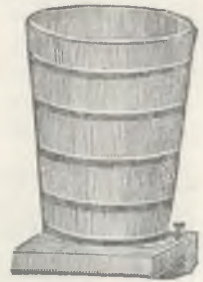


FIG. 5. A Filter made after plan shown in the preceding cut.

from which it is made. The hardest, finest-grained woods make the best charcoal. As charcoal deteriorates with age, it should be newly burned when used for filters.

Some of the most common and efficient forms of filters are represented in Figs. 1 to 5. From the descriptions given, almost any one can construct, or hire made for a small sum, a really efficient filter.

CARE OF FILTERS.

The majority of people who purchase filters pay no attention to the directions for use which generally accompany them, and which must be attended to scrupulously or the filter will become a means of contamination instead of purification. The first thing essential in the care of a filter

—and this is not often insisted upon by manufacturers—is that it should be allowed to become dry every day, or at least once in two or three days, being allowed to remain thus for an hour or two so that the charcoal may have an opportunity to absorb fresh oxygen from the air to enable it to continue its purifying process. The oxygen contained in the charcoal when placed in the filter is soon consumed, and, unless often removed, the filter will become worthless; and from the accumulation of organic matter may become a breeding-place for germs. We have seen filters which in consequence of this neglect had become so foul within a few weeks that water which was comparatively pure, after being passed through

The gravel and sand, the inside of the filter vessel, and the reservoirs for filtered and unfiltered water, should be thoroughly cleansed whenever the filter is taken apart for cleansing. The surest way to secure thorough cleansing is to boil the gravel and sand in a large kettle or wash-boiler for half an hour, rinsing out the filtering-vessels with boiling water. After rinsing all well with clean water, wash everything with a strong solution of permanganate of potash and caustic potash. A solution of one ounce of the permanganate and four of crude caustic potash in a pailful of water will be sufficient for an ordinary filter. If the permanganate solution becomes brown by the washing, more must be used, until a pinkish color

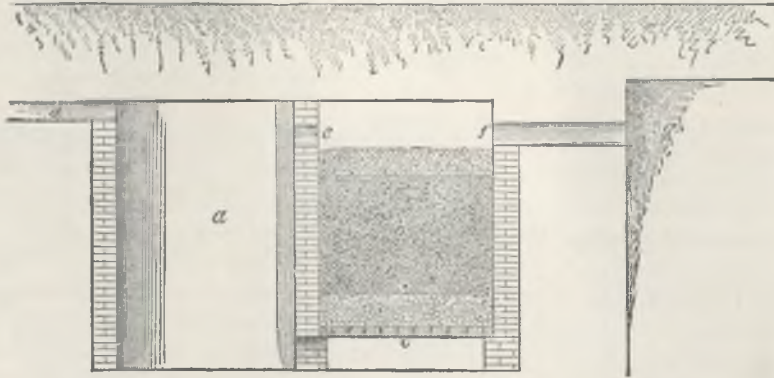


FIG. 6. Cistern filter. *a.* Receiving reservoir; *b.* Filtering medium, charcoal and gravel; *c.* Perforated slab; *d.* Rain-pipe; *e.* Overflow; *f.* Water-pipe leading to cistern; *g.* Cistern.

it was found to contain large numbers of animalcules, and organic matter in large quantity, and had an odor highly suggestive of decayed eggs.

In order to be safe and efficient, a filter requires cleansing every few weeks or months, according to the amount of water filtered, and its quality. When ordinary cistern water is used, a filter should not be used longer than six months without cleansing, and if a large amount of water is used, not more than half that time. The sponge should be cleansed and scalded at least two or three times a week. The charcoal should be renewed every time a filter is cleansed. Fresh charcoal may be used or the old may be renewed by heating to redness in a close vessel, excluding air.

remains when the gravel is rinsed. This will indicate that all impurities are removed. A few gallons of water will suffice to rinse away the remains of the permanganate, and the filter may be repacked as before, with fresh charcoal as directed. The closer the filtering medium is packed the slower the water will filter through, but the more perfect will be the purification.

Cistern filters, as usually constructed, are not to be recommended, as they soon become clogged when placed in the cistern, and not being readily accessible are not easily cleaned, so that they become sources of impurity instead of serving the purpose designed. It is possible, however, to connect a filter with a cistern in such a manner as to serve a very useful pur-

pose in freeing water at least from the grosser impurities which are likely to be washed from roofs by rain. Fig. 6 shows the plan of filters which we had constructed for use in connection with two large underground cisterns at the Sanitarium, Battle Creek, Mich., which operate very satisfactorily. They require cleaning about once in six months.

THE BEST WATER.

The purest water is always the best. Soft water is far superior to hard, though hard water free from organic matter is much to be preferred to soft water contaminated with organic impurities. In hard-water districts the use of filtered rain-water should be generally adopted. By making proper provision for storage, almost any house affords roof surface sufficient to supply the family living in it with an abundance of the softest water. The average annual rain-fall between the thirtieth and fiftieth degrees of latitude is about forty-five inches. With this amount of rain, a roof affording four hundred square feet of surface would collect sufficient water to supply more than one barrel a day during the entire year, if none were wasted. It is best to have two or three cisterns, not only to supply sufficient storage capacity, but to allow opportunity for emptying one so as to clean it thoroughly as often as once in four or six months. Unless made of stone, cisterns should be bricked up from the bottom with good hard brick, and arched over. It is also best to cover the brick inside with a thick layer of Portland Cement. When tanks are used, the best material is iron, coated on the inside with coal-tar or some other impervious and insoluble covering.

Cesspools, water-closets, and sewers should never on any account be connected with tanks from which water is used for drinking purposes. Numerous cases of serious and even fatal illness have resulted from neglect of the observance of this precaution, as water has the property of absorbing foul gases to a considerable extent. On the same account, water should not be stored in the vicinity of anything

giving out an offensive odor. Nothing could be more offensive to good taste and to sanitary principles than the custom of placing the water-tank of rail-road cars in the water-closet. The offensive practice ought to be frowned down. It is by its property of absorbing foul gases that water becomes so unwholesome by standing in a sick-room, or over night in a sleeping-room.

It is essential that all of these particulars should be well looked after in order that water may be to the body only a blessing, and not a curse, as it becomes when the laws to which attention has been called are violated.—*Home Hand-Book.*

THE AMERICAN GIRL:

WHY SHE IS NOT WHAT SHE MIGHT BE.

[THE following is a portion of an excellent address on the above subject, delivered by Dr. Hamilton Osgood before the Alumni of Jefferson Medical College, Philadelphia. We copy from the *Cincinnati Lancet and Clinic*.—Ed.]

The greatest error, Dr. Osgood said, in the training of the American girl is that she is allowed to become a woman before she knows it. One day she is a child; the next, all unprepared, all ignorant of what it means, she is a woman. Take the average girl of to-day, at the age of nineteen, we will say. This girl, who would blush if obliged to confess ignorance of some fourth-class character of mythology, will calmly admit that she not only knows nothing of the physiology of her functions, but is perfectly indifferent about it. This is a monstrous error,—one into which our girls should by no means be allowed to fall. They should be so trained, between their twelfth and fourteenth years as not only to be mentally but physically prepared for the metamorphosis which is coming. The American girl should know how to live physiologically, and gradually be taught the great and divine meanings of womanhood. She should be impressed with a feeling of reverence for her highest mission in life, in spite of as many women's

rights doctrines as might fill the shelves of a Bodician library. The women of to-day who are striving to put off and fly from the true mission of woman remind one of the boy who, in order to rid himself of an aching tooth, filled it with gunpowder, put a slow match to it, and then ran. From the age of twelve to the day of her marriage a girl should be made to feel her responsibility toward her future and those whose lives will one day be in her keeping. If the boy be father, the girl is in a double sense the mother of the man.

The supreme end of nature, Herbert Spencer says, is the welfare of posterity. The first requisite to success in life is to be a good animal. The American girl should know that to have a nation of good mothers is the first requisite of national prosperity. She should be taught that her share in this desirable result is to be attained only through conscientious care of her body. She cannot escape from herself. She cannot change her sex. The restlessness so common among our cultivated women is a mistaken and fruitless insubordination; an endeavor to escape the duties which are the glory and should constitute the chief joy of woman.

Need I tell you why a change, a radical change, in the education and training of our girls, is necessary? Look at the young women of sixteen to twenty who pass us by hundreds as we walk the streets. Whether they be rich or poor, what is more rare than a finely formed girl, with firm step, bright eye and ruddy cheek? When these are lacking, what is the reason of their absence? "The first observation of a European who comes to America," says Dr. Clarke, in his "Sex in Education," "is that our women are a feeble race; and, if a physiological observer, he is sure to add that they are responsible for a feeble race succeeding them." "I never saw so many pretty girls together," said Lady Amberley to Dr. Clarke, during a visit to a Boston school, "only," she added, "they all looked sick."

Why should there be such a radical difference in the treatment of boys and girls in their early days? The boy has his warm clothing. His feet and legs are well pro-

tected. The girl is but half clad. Half her limbs are exposed to the weather, protected only by stockings none too thick, the necessary under garments, in the majority of cases, being omitted. This difference fixes a point of departure for the cultivation of the greater sensitiveness of the girl. The ignorant mother but little realizes the amount of physical vigor it costs an insufficiently-clad girl to keep warm. And so, while the boy acquires a growing hardihood, an indifference to changes in the weather and is ready to eat any hour of the day, the girl becomes delicate, shrinks from cold, her appetite is as sensitive as the thermometer, her cheek loses its rosy hue. Thus her life goes out, steadily increasing its divergence from that of the boy. He becomes square-shouldered, straight and sturdy; she, stooping, round-shouldered and sensitive. I do not include every girl in this picture. I refer, simply, to the average girl of America, whose training does not develop her original vigor, but transforms a constitution as fine in every sense as the boy's into a tangle of fretted nerves; and this is the average American girl.

But while girls are not given enough exercise as children, they are allowed to have too much of a kind that is not good for them when they grow older. Take the exceptional case where girls are not allowed to go into fashionable dissipations until after they leave school. These girls, all unused as they are to the strain of social dissipation, plunge into a vortex of engagements,—dinner, lunches, parties, balls, and theaters, crowding upon each other with hardly a chink for rest. The result is that one or two seasons rob them of their bloom and brightness, and not only this, but they have exhausted the social pleasures by mere glutony.

One of the great errors of the day is that a girl is expected to complete her education by her eighteenth year—an age at which lads are but little more than half way in theirs. Everything in the shape of culture is crowded into the years during which the girl should be cultivating the physical strength, common sense and practicality which are to be of life-long benefit

to her and her descendants, while half the so-called culture with which fashionable education crams the girl is of little use and is quickly forgotten. Less study and more exercise should be the rule. Upon good health and upon the ability to perform her functions easily and naturally depends, in a very large degree, the comfort and happiness of women in later years. Our girls rush through the years of their adolescence utterly regardless of the great need of intervals of rest. And if the careful mother or the watchful physician insist upon periodical repose, they submit to it most ungraciously and with an impatient criticism upon their sex which is pitiful. They try to live as if there were no swing of tide in their organism. They wish to live down and put under reckless foot the necessities of their sex, but it is the old fight with windmills, with this difference: Don Quixote recovered from his hurts; but they, in too many cases, never do. I can mention two women, honored by our sex as well as their own, who are largely responsible for the present restlessness of many of their sisters. They are noble, cultured women, of great influence. One of them confessed to a patient of mine that last year nervous exhaustion nearly made her insane, and incidentally remarked that at her last confinement she sent off her proof-sheets and at the same moment called for doctor and nurse. You would be surprised if I told you her name. The other admitted that in spite of all that she had said in public, touching the rights of women, her persistent, unrelenting labor had so exhausted her that she had modified her views, but would not confess to any man living, and would not have the public know of it for the world. I could quote other equally significant confessions. These cases are only a fresh suggestion of the battle with the windmills. It would seem as if these women ought to know the exact sense and weight of what they affirm and teach. But they do realize the actual condition of our young girls; and is this condition entirely due to mistakes in dress and party going? Do we physicians not know there is another side?

TEMPERANCE EDUCATION.

By the vote of our city Board of Education, on the 6th of November last, the English school-book, prepared by Benjamin Ward Richardson, called "The Temperance Lesson-Book," was adopted among the text-books which our city teachers are at liberty to use. We hope there are a good many teachers in the city who are willing to take up this book and teach it to their classes, for there is no doubt that boys go out into the dangers of the world lamentably ignorant of those that await them among the drinking-shops. We are sorry that this instruction must come into the schools through special text-books, though it is better that it should come in this way than not at all. It must come, at last, into all competent schools, but when that point shall be reached, it will come in books on physiology and political economy, in a natural and perfectly legitimate way. A special text-book on temperance may be well enough in the absence of the general books in which the topic has its appropriate place and space; but it is like a text-book on opium-eating. In short, the incompetence of the books on physiology and political economy has forced the friends of temperance into the use of this make-shift, which is surely a great deal better than nothing.

There is, probably, no hallucination so obstinate as that which attributes to alcoholic drink a certain virtue which it never possessed. After all the influence of the pulpit and the press, after all the warning examples of drunkenness and consequent destruction, after all the testimony of science and experience, there lingers in the average mind an impression that there is something good in alcohol, even for the healthy man. Boys and young men do not shun the wine-cup as a poisoner of blood and mind, and the most dangerous drug that they can possibly handle; but they have an idea that the temperance man is a foggy or a foe to a free social life, whose practices are ascetic, and whose warnings are to be laughed at and disregarded. Now, in alcohol, in its various

forms, we have a foe to the human race so subtle and so powerful that it destroys human beings by the million, vitiates all the mental processes of those who indulge in it, degrades morals, induces pauperism and crime in the superlative degree when compared with all other causes, corrupts the homes of millions and makes hells of them, and wastes the national resources more certainly and severely than war; yet so little have the writers upon physiology and political economy regarded this vital and economical factor in human affairs, that the friends of temperance have been obliged to get up and push a special text-book upon it! Verily, they must be a brilliant set of men! Hereafter no text-book on either physiology or political economy should be adopted in any school in the country that does not competently treat of the alcohol question.

It is a cruel thing to send a boy out into the world untaught that alcohol in any form is fire and will certainly burn him if he puts it into his stomach. It is a cruel thing to educate a boy in such a way that he has no adequate idea of the dangers that beset his path. It is a mean thing to send a boy out to take his place in society, without understanding the relations of temperance to his own safety and prosperity, and to the safety and prosperity of society. Of course, the great barrier between the youth and correct knowledge,—the great mystifier and misleader,—is respectable society. This is practically saying to the young, pretty universally, that wine is a good thing. Fine dinners are never given without it, and good men and women drink it daily. They do not get drunk, they may be conscientious and religious, and many of them not only do not regard wine-drinking as harmful, but as positively beneficial. The boy and the young man see all this, and think, naturally, that those who have experience in drink should know better about its results than those who let drink alone.

Now, what we want to do in our schools is to do away with the force of a pernicious example, and a long-cherished error, by making the children thoroughly intel-

ligent on this subject of alcohol. They should be taught the natural effect of alcohol upon the processes of animal life. (1st.) They should be taught that it can add nothing whatever to the vital forces or to the vital tissues,—that it never enters into the elements of structure, and that, in the healthy organism, it is always a burden or a disturbing force. (2d.) They should be taught that it invariably disturbs the action of the brain, and that the mind can get nothing from alcohol of help that is to be relied upon. (3d.) They should be taught that alcohol inflames the baser passions, blunts the sensibilities, and debases the feelings. (4th.) They should be taught that an appetite for drink is certainly developed by those who use it, which is dangerous to life, destructive of health of body and peace of mind, and in millions of instances ruinous to fortune and to all the high interests of the soul. (5th.) They should be taught that the crime and pauperism of society flow as naturally from alcohol as any effect whatever naturally flows from its competent cause. (6th.) They should be taught that drink is the responsible cause of most of the poverty and want of the world. So long as six hundred million dollars are annually spent for drink in this country, every ounce of which was made by the destruction of bread, and not one ounce of which has ever entered into the sum of national wealth, having nothing to show for its cost but diseased stomachs, degraded homes, destroyed industry, increased pauperism, and aggravated crime, these boys should understand the facts and be able to act upon them in their first responsible conduct.

The national wealth goes into the ground. If we could only manage to bury it without having it pass thitherward in the form of a poisonous fluid through the inflamed bodies of our neighbors and friends, happy should we be. But this great, abominable curse dominates the world. The tramp reminds us of it as he begs for a night's lodging. The widow and the fatherless tell us of it as they ask for bread. It scowls upon us from

the hovels and haunts of the poor everywhere. Even the clean, hard-working man of prosperity cannot enjoy his earnings because the world is full of misery from drink. The more thoroughly we can instruct the young concerning this dominating evil of our time, the better will it be for them and for the world. Let us use the "Temperance Lesson-Book" wherever we may. Let parents demand that it shall be used, and particularly let all writers upon physiology and political economy for schools take up the subject of alcohol, and treat it so candidly, fully, and ably that their books shall no longer be commentaries on their own incompetency to fill the places whose functions they have assumed.—*Scribner's*.

THE TOBACCO PROBLEM.

PHYSICAL AND INTELLECTUAL VIEW.

THE testimony as to the injurious influence of tobacco on body and mind is clear and overwhelming.

In 1862, the Emperor Napoleon, learning that paralysis and insanity had increased with the increase of the tobacco revenue, ordered an examination of the schools and colleges, and, finding that the average standing in both scholarship and character was lower among those who used the weed than among the abstainers, issued an edict forbidding its use in all the national institutions.

Since the fall of the empire, the minister of public instruction, finding, from the professors in the scientific and other schools, that in every grade the students who did not smoke outranked those who did, and that the scholarship of the smokers steadily deteriorated as the smoking continued, has issued a circular to teachers in both colleges and schools forbidding tobacco, as injurious to physical and intellectual development.

French physicians and prominent men of science are in agreement upon the same view, and also in the conviction that it sows the seeds of many diseases. It is asserted by a member of the Paris Academy of Medicine that "statistics show that in exact proportion with the increased

consumption of tobacco is the increase of diseases in the nervous centers,—insanity, general paralysis, paraplegia, and certain cancerous affections."

Prof. Lizars, of Edinburgh, enumerates a fearful catalogue of diseases which he proves to be the result of tobacco, adding:

"It is painful to contemplate how many promising youths must be stunted in their growth and enfeebled in their minds before they arrive at manhood."

What an advance in intellectual and moral power should we behold if our young men could be induced to follow the example of Sir Isaac Newton, who refused to smoke because he "would make no necessities for himself"; a sentiment worthy to be engraved over the doors of every college and school-house in the land.

Dr. Willard Parker, an undoubted authority, says:—

"It is now many years since my attention was called to the insidious but positively destructive effects of tobacco on the human system. I have seen a great deal of its influence upon those who use it and work in it. Cigar and snuff manufacturers have come under my care in hospitals and in private practice; and such persons cannot recover soon and in a healthy manner from cases of injury or fever. They are more apt to die in epidemics and more prone to apoplexy and paralysis. The same is true, also, of those who smoke or chew much."

Equally strong testimony is given in *The Lancet* by Dr. J. Pidduck, physician to a dispensary in St. Giles, London. Indeed, the highest medical authorities, including Dr. Taylor, the great English surgeon and author, are agreed that tobacco is a poison for both brain and heart, producing paralysis, apoplexy, and heart disease.

Prof. Brewer, in detailing the pains and the penalties attending its use, affirms that nicotine—one of the subtlest of poisons, a single drop of which will kill a dog—is the element that determines the strength of tobacco. At Dartmouth Park, England, an old wooden pipe was given to a three-year old boy to blow soap-bubbles with, the pipe being first carefully washed out. The boy was taken ill and in three days died, his death, according to medical evi-

dence, being caused by the nicotine which he had sucked in while blowing the bubbles.

A little child picked up a quid that had been thrown on the floor, and, taking it for a raisin, put it into her mouth, dying of the poison the same day.

Bocarme, of Belgium, was murdered in two minutes and a half by a little nicotine, or alkali of tobacco. A very moderate quantity introduced into the system, or even applying the moistened leaves over the stomach, has suddenly extinguished life. Indeed, so thoroughly does tobacco poison the blood that, according to the testimony of a physician to a dispensary in St. Giles, "leeches are instantly killed by the blood of smokers, so suddenly that they drop off dead immediately when they are applied."

In this view, we cannot wonder that it is pronounced perilous for a delicate person even to sleep in the room with an habitual smoker.

Radically, this weed ranks among the deadliest of poisons. Writes Brodie:—

"It powerfully controls the action of the heart and arteries, producing invariably a weak, tremulous pulse, with all the apparent symptoms of approaching death."

Says another physician:—

"If we wish at any time to prostrate the powers of life in the most sudden and awful manner, we have but to administer a dose of tobacco, and our object is accomplished."

Such are its characteristics, making its prescription permissible only in the extremest cases and with the utmost caution. Yet this most powerful, most fatal of all drugs it is, which has come to be regarded by thousands as a daily necessity, —more to them than meat, or drink, or any other earthly good.

Writes the late Dr. Marshall Hall:—

"The smoker *cannot escape* the poison of tobacco. It gets into his blood, travels the whole round of his system, interferes with the heart's action and the general circulation, and affects every organ and fiber of the frame."

Tobacco commences its dreadful work in the factories, the operatives inhaling its

dust and absorbing its poison, so that, according to the doctors, "it takes only four years of the work to kill off the worker."

In the Bellevue Hospital there were recently fifty patients suffering from one of the most fearful and incurable of maladies, contracted from cigars manufactured in tenement houses, by diseased persons, the finishing touch being given by the teeth and tongue. Among the physicians who have traced several similar cases to this source may be named Dr. L. Duncan Bulkley, of New York.

That most terrible of diseases, delirium tremens, which was formerly regarded as due only to alcohol, is now, by Dr. Abraham Spoor and other learned doctors, ascribed largely "to the exasperating agency of tobacco upon human nerves and organism."

A French physician, who had studied the effects of smoking on thirty-eight boys, between nine and fifteen, gives as the result that twenty-seven presented marked symptoms of nicotine poisoning; twenty-three, serious derangement of the intellectual faculties and a strong appetite for alcoholic drinks; three, heart disease; eight, decided deterioration of the blood; twelve, frequent nosebleed; ten, disturbed sleep; and four, ulceration of the mouth in its mucous membrane. These facts are given on the authority of the *British Medical Journal*.

In Germany, the mischief done to growing boys has been found to be so great that the German government has ordered the police to forbid lads under sixteen from smoking in the street. On our streets we behold a vast and ever-increasing number of Young Americas, who evidently consider smoking or chewing essential to their manliness. And alas! our police have no orders to forbid it. How emphatically Nature protests against this repulsive alien, almost every tobacco user can testify. I give here but a single instance. In a neighborhood of smoking boys Dio Lewis made an experiment on a lad who had never used the weed, giving him a pill of plug tobacco to chew. He grew fearfully sick, became pale as death, while a cold sweat

crept over him, and soon, in the midst of violent retchings, he had to be carried into the open air.

Yet what pains are taken and what obstacles conquered in forming the habit! A lady, not long since, met on the street a three-year-old with a black stick in his mouth. She begged him to throw it away, promising him a nice present if he would, but he held on to his stick, asserting that he "liked smoking and meant to smoke himself when big enough."

A few words should be said as to cigarette smoking, which is becoming so prevalent and which is thought by some to be quite harmless. A physician, who had strong suspicions on the subject, for his own satisfaction, had a cigarette analyzed. The tobacco was found to be strongly impregnated with opium, while the wrapper, warranted to be rice paper, proved to be common white paper whitened with arsenic. Thus the cigarette subtly combines a three-fold deadly bane, proving in the end, perchance, as fatal to the unwary as the poisoned garments of Nessus to the unsuspecting Hercules.

It is asserted that during the last fifty years no devotee of tobacco has graduated from Harvard at the head of his class, although *five-sixths* of the students are addicted to its use!—META LANDER in *Independent*.

BOOKS AND READING IN THE FAMILY.

It has been aptly said that "a home without books is like a room without windows;" indeed, books are the windows through which the mind looks out,—the chief means whereby we enjoy intercourse with superior minds. We need mental food as well as physical nourishment, and it is no exaggeration to say that, with the young especially, a cultivated love for good reading is an almost certain guarantee against the wily temptations of vice and wickedness. Few parents realize the importance of supplying their families with good reading matter, or feel the necessity of thus providing for the healthy mental development of their children. We agree with Rev. C. A. Burdick, in a re-

cent exchange, "that the one thing needed to prompt parents to provide for the mental wants of their children is to feel that it is a necessity; for, except in cases of extreme poverty, a way will always be found to meet the demands of necessity. Poor folks will provide physicians and medicines in case of sickness at considerable expense, for most people regard these as necessities. What is wanted is some just standard by which we can judge as to what things are necessities. It is agreed that it is necessary to provide for the healthy physical growth of a child, and also for the sustenance of the body after maturity. And to this end protection, warmth, and nourishment are necessities. But a garment of coarse texture is capable of furnishing the requisite protection and warmth; hence, a garment of *fine* texture is not a necessity. Plain bread and milk and vegetables are found to contain all the necessary nutritive qualities to keep the body in good health; hence pies, cakes, puddings, and a generous meat diet are not necessities. Experience proves that water is sufficient to quench thirst, and to moisten food when that is desirable; hence tea, coffee, and other drinks are not necessities.

"It would be an insult to the intelligence of any reader to attempt here to show that the mind is superior to the body, and hence that proper provision for its healthy development is, to say the least, of equal necessity. If, then, it is agreed that the healthy growth of the mind is a necessity, it follows that the appropriate means for that growth is a necessity. A thorough training in college is very desirable, but not a necessity; for Franklin, Lincoln, and many others who enjoyed no such advantages, still attained a high state of intellectual growth. But, though numbers have attained intellectual eminence without the advantages of high schools, none, so far as I know, have attained it without books. Books, then, may be considered a necessity, as affording the incitements, training, and knowledge which every mind needs. It is, of course, possible to make the living teacher supply the place of books, but the latter are by

far the cheaper means of intellectual growth, and to most of that class which I have kept in mind in this writing, they are the only available means.

"But some may say, 'We make sufficient provision for the intellectual growth of our children in the common school.' It would be as reasonable to say that to furnish food for the body up to the age of eighteen or twenty is sufficient—that the body needs no nourishment longer. The body indeed reaches a limit to its growth, but will need nourishment as long as it lives. On the other hand, the mind reaches no limit of growth, so far as our present experience goes, and if the Creator has set no limits to its capacity, it follows that the means of growth are needed continuously. Parents themselves need mental food as well as their children. They may not be conscious of this need, and hence are starving themselves. If they had enjoyed in youth the advantages for forming a taste for and a habit of reading which I am trying to persuade them to give to their children, it would have been otherwise. To withhold from the mind its appropriate mental food, is to dwarf it. A human being dwarfed in mind is a more pitiable object than one dwarfed only in body.

"Finally, as mental food is a necessity to the mind, and as pies, cake, meats, tea, coffee, tobacco, and fine clothes are *not* necessities to the body, it follows that none who can furnish all or any of the latter for themselves and their children, can reasonably say they are not able to furnish a proper selection of books and papers."

Axle-Grease Butter Makers.—In Milwaukee, Wis., the war on the axle-grease butter makers of Chicago is being pushed with vigor, and they are being driven to the wall. Some of the testimony given as to how the pomatum is manufactured is interesting, one witness testifying that the recipe for making "best gilt-edge creamery" was to take 1,000 pounds of hog products, one hundred and fifty pounds of beef tallow, and twenty-five pounds of genuine butter, and mix them up with seasoning to suit the taste. We should say a little guano would about fix it out for a man who was blind drunk.—*Milwaukee Sun.*

MICHIGAN STATE BOARD OF HEALTH.

REPORTED FOR GOOD HEALTH.

THE regular quarterly meeting of this Board was held at Lansing, Tuesday, April 12, the following members being present: Rev. D. C. Jacokes, of Pontiac; Henry F. Lyster, M. D., of Detroit; Arthur Hazlewood, M. D., of Grand Rapids; and Henry B. Baker, M. D., Secretary.

Dr. Lyster was elected president *pro tem.*

A letter from Prof. Kedzie, president of the Board, announced his decision to decline the re-appointment as member of the Board, for the reason that his duties as professor at the Agricultural College were such as, in the opinion of members of the board of agriculture, would prevent his giving that attention to the work of the Board of Health which he had heretofore done. His communication outlined the great progress in public health measures in this State since the organization of the State Board of Health eight years ago. He saw with pride that nearly every city, village, and township in the State now has its board of health and health officer. Kerosene explosions, so common eight years ago, have forever been banished. Everywhere in the State there is evidence of an advance in the stamping out of infectious diseases. The ventilation of churches, school-houses, and dwellings now receive an attention never known before. The water in our wells, the drainage of farms, and the sewerage of houses have all been brought into prominence by the labors of the Board. In this work the Board had been greatly assisted by the public press, but the press itself has been stimulated by the work of the Board. In short, there has been a general advance along the whole line, but we have kept such even step in this advance that we only become aware of our changed position by comparison with the landmarks of eight years ago. Last, but not least, among the agencies set in motion for the public health, he noticed the sanitary conventions for discussion with the people of all matters relating to their physical well-being. He believed they were fraught

with inestimable good to the people of our State. The forces which are thus set in motion are not temporary in their influence, but will flow on in a stream of blessings to the end of time. The information gathered by the Board needs to be scattered broadcast among the people. New and original investigations into the nature of contagious diseases, and the means for arresting them, need to be undertaken and pushed forward by the Board. The information gathered will be of small benefit if imparted to only a few. The State cannot afford to hide this light under a bushel.

In bidding farewell to the State Board of Health, Dr. Kedzie gave the assurance that he did so with the kindest feelings toward all its members, and with an earnest wish for its highest prosperity and usefulness.

Resolutions were passed expressing extreme regret at the necessity which compelled Dr. Kedzie to decline to serve longer with the Board; also, expressing the high appreciation of the Board for the eminent labors of Prof. Kedzie in the interests of the public health of the State. The election of his successor as president was postponed until the next meeting of the Board.

THE FILTH OF OUR CITIES.

The secretary presented a communication from C. H. Voute, giving statistics of the filth removed from privies and cess-pools in various places in the State by means of the odorless excavating apparatus. During the time—about a year—the number of tons removed, is approximately, as follows: East Saginaw, 850; Bay City, 580; Lansing, 93; Charlotte, 61; Jackson, 151; Ionia, 78; Flint, 118; Battle Creek, 60; Kalamazoo, 258; in the State about 2300 tons, or 15,000 barrels, and of that amount but 2,000 barrels could be pumped out, the remainder being removed by the "pitting" process, showing the liquid portion had mostly drained off into the soil, which must be much saturated with filth, and as a consequence many wells must be contaminated.

OIL INSPECTION.

Communications had been received from different parts of the State, stating that it was customary for deputy oil-inspectors to inspect a few barrels of oil from a car-load, and brand as "approved" and collect pay for inspecting the whole car-load. One of the statements was that the inspector did not test every barrel, even when his test showed at least three different grades of oil in the car-load. The questions were, whether this was an honest fulfillment of the law, and whether the public safety is thus conserved. The secretary was directed to take action for ascertaining.

SICKNESS CAUSED BY PUTRID MEAT.

A letter was presented from John Mulvany, M. D., Surgeon in the British Navy, detailing the effects of food rendered unwholesome through putrefactive taint. All of the crew of a large merchant vessel that put into the Falkland Islands, who ate of pork opened on a certain day became ill, and the illness continued until the ship was disabled and medical assistance was sought for in the Falkland Islands. There it was found that not only the pork but the beef was bad, and the meat was condemned by a board of surveying officers. Seven of the affected died, and *post mortem* examination revealed immense effusion into the pericardium, a stench from the brain, and congestion at the point of the calamus scriptorius in the fourth ventricle, with congestion of the jejunum and ilium. During life the chief symptoms were paralysis of the hands and feet, and agonizing pains in the toes; uncontrollable sleeplessness, loose bowels, stench from the skin, etc. Symptoms entirely *sui generis*.

The Board requested Dr. Mulvany to present a complete account of the sickness.

DISEASES OF ANIMALS.

A letter was presented from A. J. Murray, V. S., Secretary of the State Cattle Commission, relative to the desirability of collecting statistics of deaths from contagious diseases of animals in all parts of

the State. This work might properly have been done by the State Cattle Commission, if it had any funds, but a bill granting them an appropriation of \$500, which was passed by the senate, was defeated in the house of the present legislature.

Letters were also presented relative to Glanders in Clinton and Shiawassee counties.

SANITARY CONVENTIONS.

Invitations to hold sanitary conventions during next winter were accepted from Coldwater and Ann Arbor.

DETROIT BOARD OF HEALTH.

Dr. Lyster, chairman of the special committee of the Board, to devise a plan for a board of health for the city of Detroit, reported that he had, in consultation with the city attorney and other citizens, drawn up a bill providing a practical and a scientific board of health for that city, and the bill was now before the legislature.

SANITARY SCIENCE EXAMINATIONS.

The annual examination of applicants in sanitary science will be held Tuesday, July 12, 1881. It was voted that the examination should be written, and that each member should submit ten questions not heretofore asked, and on subjects connected with their work as regular committees. Candidates successfully passing the examination will receive certificates that they are qualified to act as health officers in any city, village, or township in the State.

CONTAGIOUS DISEASES.

It was decided to print revised editions of the documents on the restriction and prevention of each of the three diseases, diphtheria, scarlet fever, and small-pox. Arrangements were also made for the translation of these documents into the Holland and German languages.

"WINTER CHOLERA."

The Secretary reported the prevalence of a peculiar type of diarrhea in some portions of the State during the past winter. The fact of its greater prevalence in the southern portions of the State, and that cases have been reported from two State institutions and from towns in the northern part of the State, dependent upon Chicago and southern Michigan for their food supplies, might indicate a connection between the sickness and the use of oleomargarine, butterine, products of diseased pork, or meat, or other food.

The next regular meeting of the Board will be Tuesday, July 12, 1881.

NIGHT AIR.

BEFORE we can hope to fight consumption with any chance of success, we have to get rid of the *night-air superstition*. Like the dread of cold water, raw fruit, etc., it is founded on mistrust of our instincts. It is probably the most prolific single cause of impaired health, even among the civilized nations of our enlightened age, though its absurdity rivals the grossest delusions of the witchcraft era. The subjection of holy reason to hearsays could hardly go further. "Beware of the night-wind; be sure and close your windows after dark!" In other words, beware of God's free air; be sure and infect your lungs with the stagnant, azotized, and offensive atmosphere of your bedroom. In other words, beware of the rock spring; stick to sewerage. Is night air injurious? Since the day of creation, that air has been breathed with impunity by millions of different animals—tender, delicate creatures, some of them—fawns, lambs, and young birds. The moist night air of the tropical forests is breathed with impunity by our next relatives, the anthropoid apes—the same apes that soon perish with consumption in the close though generally well-warmed atmosphere of our northern menageries. Thousands of soldiers, hunters, and lumbermen sleep every night in tents and open sheds without the least injurious consequences; men in the last stage of consumption have recovered by adopting a semi-savage mode of life, and camping out-doors in all but the stormiest nights. Is it the draught you fear, or the contrast of temperature? Blacksmiths and railroad conductors seem to thrive under such influences. Draught? Have you never seen boys skating in the teeth of a snow-storm at the rate of fifteen miles an hour? "They counteract the effect of the cold air by vigorous exercise." Is there no other way of keeping warm? Does the north wind damage the fine lady sitting motionless in her sleigh, or the helmsman of a storm-tossed vessel? It cannot be the *inclemency* of the open air, for, even in sweltering summer nights, the sweet south wind, blessed by all creatures that draw the breath of life, brings no relief to the victim of aerophobia. There is no doubt that families who have freed themselves from the curse of that superstition can live out and out healthier in the heart of a great city than its slaves on the airiest highland of the southern Apennines.—*Popular Science Monthly*.



TEMPERANCE AND MISCELLANY.



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

WAITING.

LEARN to wait,—life's hard lesson,
Conned, perchance through blinding tears,
While the heart-throbs sadly echo
To the tread of passing years.

Learn to wait hope's slow fruition;
Faint not, though the way seems long;
There is joy in each condition,
Hearts though suffering may grow strong.

Constant sunshine, however welcome,
Ne'er would ripen fruit or flower;
Giant oaks owe half their greatness
To the scathing tempest's power.

Thus the soul untouched by sorrow,
Aims not at a higher state;
Joy seeks not a brighter morrow—
Only sad hearts learn to wait.

Human strength and human greatness
Spring not from life's sunny side;
Heroes must be more than driftwood,
Floating down a waveless tide.

A SERVICE OF SONG.

A STORY FOR YOUNG LADIES.

BY HOWE BENNING.

(Concluded from May Number.)

CLARA stayed to dinner. Everybody enjoyed Mr. Laird's bountiful table, and during the courses her lively tongue rattled off the afternoon's story.

"And oh, the dirt! Why, Mrs. Laird, I never dreamed of such a place. How ladies can ever go about in such places working, I am sure I cannot see." But Marian was very quiet, only when the waiter went to fill her wineglass she placed her hand over it, and said in her clear, firm tones, "I do not wish for any, Masters."

"Marian has been to a temperance lecture," laughed Clara. "A vivid one, was it, Marian?"

"Yes," replied Marian, with heightened color; "so vivid that I shall never knowingly touch wines or spirits again in my life."

Her father looked at her, as he usually did at this daughter, approvingly. "Per-

haps it is well, it may be," he said; but her mother, who was always in dread of Marian's "extreme notions," fidgeted a little. "No need of being too peculiar," she ventured.

That night, in her own room, Marian took up the thought that had been echoing in her heart since the afternoon's words. This girl was one of the hungering and thirsting ones, and truths never came fully home to her to find themselves engraven upon sand. She went over these again and again: "Let your life be a service of song." A song meant harmony, breaking into the consciousness of other lives in pleasure and blessing. But a "service of song" must mean far more. It must be a continual offering laid upon the altar of others' needs; it must be a glad lifting up and bearing of other's burdens; it must be a placing under of one's own self, of time, of talents, that others might be lifted higher into light here, and better fitted for the glory beyond. All this Marian saw, and more—that when all was spoken she had but gone back to the eternal truth uttered more than eighteen centuries before—"He that loseth his life for my sake shall find it."

It is not always in the experience that we call "conversion" that a soul steps at once into its highest duties or realizes its sweetest privileges. The mountain stream may be turned from its natural course and held in by detaining dams, but it is not until it strikes the wheel, and so finds the motive power, that the machinery really works. It was so in Marian's life. The stream of God's love had welled into her soul months before. She thought she had been consecrated, yet on this day, in the twilight and stillness, was first borne in upon her the full consciousness of His work, and of her part in it.

Do not imagine that this self-denial and misunderstanding became all at once easy for Marian, or easier than it ought to be for you.

There were other children in the family—little ones—and they were the first to recognize Marian's new "service."

"Sister's awful good lately," said Ted, "and has lots of time for us. She played 'Yankee Doodle' yesterday much's a dozen times, and never scowled once."

"And me too," put in Bess; "she hasn't said 'psbaw' hardly since I can remember."

"I scarcely caught a glimpse of you last night," said Clara to her one day, after a large party; "and when I did, you were devoting yourself to the wall flowers with commendable patience. What in the world were you talking about so long with that Herbert Smith? I never could find six words to say to him in my life."

Very likely not. What Marian was talking about was, though she did not tell her giddy friend, urging the young man to come into their prayer-meetings and take a part as he used to do in his country home, though how he came to tell her that, he was sure he did not know. But she succeeded. The young man found his place again in a Christian circle, and in after years called that his "second saving." A few hours of every week found her busy among the sick and needy, and the generous note that was to have been exchanged for an evening dress for herself, found its way to the grocer and the coal-yard for others. And yet it seemed to the young girl that whatever she might be doing in "service" for others, certainly the song was her own.

But there came a time when Marian needed help in her own life. Two years before she had been promised in marriage to Graeme Winslow when he should return from his studies in Germany; and a little before Christmas he came back to his native land and to her. She had known him always, and he had been such a noble, promising youth, that she had never thought of weakness as possible in connection with him. But when at a dinner-table she saw him drain his glass, not merely once, but again and again, her heart misgave her.

"Are you not a temperance man, Graeme?" she asked, at the first opportunity.

"Certainly I am, Marian mine, though if you mean one of the 'fanatics,' I cannot plead guilty."

"But I am one of the 'fanatics,' Graeme."

"Oh, well, that's different, of course, in a woman."

"Why any the better than for a man, Graeme? Can a man afford to lose his reason any more than a woman?"

"Why, of course not, Marian; but then

I am in no danger. What is your fear?"

"I was not thinking of your danger alone, Graeme; it's because of what I want you to be to others that I feel anxious also."

"Yes, I remember that 'song in the lines' you wrote me about. But, Marian, I will tell you—you shall sing that song as you do now every blessed minute, and I will work to feed the bird. How will that do, eh?"

"Influence admits of no division, Graeme, that will deprive you of your allotted part; and for lost opportunities, there is no return flight."

"It's a serious matter, I see, with you, Marian, and some time I must consider it," said the young man, but so carelessly that Marian smiled sadly.

When, a little later, a letter came from her father's old aunt, in which was written, "I'm pretty old, you know—eighty-two and past; but I haven't got over my liking for young things yet, and every day I say, 'If it had pleased God to spare my granddaughter, Mary, what a joy she would have been to me now!' I long for a young face to come in and out of the house; for a happy, singing voice around; but mine is pretty well cracked now, and Judy's ain't much better, seeing she's most seventy. But then it won't be long, and I expect to hear the 'great song' and the 'many harpers.' Are you sure you're laying up there, Nephew John, as well as in the stocks and banks down below?"

"Good old creature!" said Nephew John, glancing over his spectacles as he folded up the letter; "I'm sorry for her—left all alone there with Judy. Many's the kind turn she did for me when I was n't quite as well off in the stocks and banks, but merely a barefoot boy, to whom a gingerbread horse was a treasure not to be despised."

"Father, may I go there for a little while?" asked Marian. "and help to cheer her up, as she says?"

"Now?" exclaimed Mrs. Laird.

"And miss the season?" from Nett, who being only fifteen, and not yet "out," was aghast at the idea.

But Marian said "yes" to both, and held on to it so seriously that two weeks later found herself and a decent-sized trunk set down among the hills of New Hampshire at her aunt's plain little brown house, where she stayed until after the spring arbutus had yielded their pink-and-white treasure-cups of fragrance to her search, and the first spring beauties had

clothed the roots of many a mossy tree.

"Life is so beautiful here," the girl said, as she gave her aunt the first bunch of gathered sweetness.

"Life is beautiful everywhere, dear," the gentle lips answered, "where there is a possibility even in it left. It is only when the petals are quite closed in selfish inholdings of its little gifts, or quite withered away," picking out a dead stem Marian had not noticed, "that it ceases to be a thing of beauty."

"I'm sure you've added five years to our lives—Judy's and mine!" said the old lady, as the coach finally called to take Marian away. "You've been just like a sunbeam in our two old lives! The Lord bless thee and keep thee and make his face to shine upon thee. The Lord give thee peace, and if ever any trouble comes into your own life, may he prove a comforter."

Had the keen old eyes seen, then, a little of the hidden questioning? Marian did not know. She was going back a little different. All winter she had written: "It is not for yourself alone, Graeme, that I long to see you strong to bring down every foe, but for the sake of the souls you might help, the lives you might lift up through service." And at last she had said, "Until then I cannot marry you, Graeme. When I know that you value the influence God has given you over others more than any pleasure of self; when I feel that you realize the gifts he has given you too highly to be willing to sacrifice even one, then you will be all that I thought or that God meant you to be. I think you will come to this. His Spirit will lead you. Until then we are friends."

Graeme had been very angry at first, but Marian's simple frankness disarmed that, and he began a new admiration of the unselfish character that made her so welcome in the home circle, in the society of rich or poor, wherever she went.

More than two years of steady, quiet "serving!" Graeme had long ago lain aside his habit of wine-drinking in public; but of what might be his private opinions, Marian had no means of knowing—he never said; until at a great mass-meeting, after one and another had spoken, the tall, handsome form of her friend arose, and Marian heard, with quickened pulse, his voice saying:—

"My friends, I once drank the social glass, and thought and said I was safe in so doing. To-day I take it all back. I believe no man is safe who dares to dally

with any temptation. But beyond that even, to-day, do I feel that I had no right to lose the power for influence over any life, the hope of helping it to a higher place, which is God's most precious gift to man, and which in my blindness I might never of myself have heeded. From this time forth I stand pledged to be in myself, by His help, all that I can be for the helping and saving of other lives."

There was a murmur of applause, Marian knew, but her mind went back to another November day in the past—to the dreary shore and the desolate hut, with its hopeless inmate, where there had first come to her the realization of the worth of a life and the terrible meaning of its loss; and in her heart she thanked Him, as never before, for the strength He giveth with His lessons, and the songs He wakes in the hearts of his faithful servants.

WHY WOMEN FADE.

AN eminent physician and profound scholar once said that the "beauty of women was like the blossom of the morning glory, charming for a day only." We have spent some time in the loyal labor of attempting to prove our friend wrong, but his criticism finds ready indorsement in the faces around us. "A woman should reach her prime between forty and fifty," says an author of note, but alas, too many have sunken cheeks, sallow complexions, and tired, fretful faces, at that age. The causes are many; the perils and anxieties of child-bearing and child-training have robbed many a blooming cheek of its charm of freshness, but even this is contrary to the laws of nature. When these sacred duties are understood as they should be, and proper care is taken not only of the body but of the mental condition, we shall see happy, cheerful mothers in every home.

There are many causes which lie at the root of this evil, for evil it is, when the God-given sweetness and freshness leave a young daughter's face, and hard lines make her appear older than the grandmother of the house.

One cause is *fretting* or *overanxiety*. Women, as a rule, dwell too much on little things; they magnify trouble, anticipate its coming, and weary themselves over trifles. Only a short time since, we saw a most estimable lady rendered miserable for days because a carpet-fitter had neglected to finish his work neatly. Another was so anxious about some cake she

was making for a church fair that her nerves were quite out of tune and her temper ruffled.

One good woman, the mother of a family, said once in the hearing of the writer, that "she kept awake all night, much worried because she had sealed a bottle of some fancy pickles and neglected to put in a certain kind of spice."

Think of it. In a world full of important work, in a life crowded with grand possibilities, a woman making herself miserable over a jar of pickles.

Mothers fret about their children in the most foolish and unnecessary manner. Tommy is sent on an errand for his mother with instruction to return at once. Tommy does not return; an hour passes, and still another, but Tommy does not appear. Mamma grows impatient, then anxious, then desperate, and at last is in a state of nervous excitement quite injurious to her health. After the entire family has been disturbed, the police questioned, and the parents instructed that it "was quite time to punish that boy; he was getting the upper hand very fast," Tommy appears, smiling, whistling, happy. A wise mother would calmly hear his story, but Tommy's mother is unduly excited, and she literally pounces upon the child. The story is terse and simple. Tommy was obliged to wait, then the gentleman asked him if he would do an errand for him, and the obliging boy consented; the delay was greater than he anticipated, and Tommy was "awful hungry." That was all. He had not "been in a boat," nor been "carried off by some horrid tramp," neither had he "strayed away with wicked boys," as his mamma feared, and yet she is ill with a headache, and Tommy "wishes he was a man, and folks did n't make such a fuss if you was out of sight a little while."

Our earnest advice to women, young and old, is, "*Don't fret.*" Life is too important, sacred, and grand to waste in useless repinings. Fretting has ruined more faces than sickness and suffering.

Another cause of early vanishing beauty is the *want of fresh air*. Not an occasional walk or drive, not a round of calls or a little shopping, but regular doses of good, fresh air. Make it a religious duty to see something new every day, something which will compel you to walk, and at the same time divert you. Do not allow yourself any liberty in this matter, nor accept any excuse whatever. It is right, proper, essential to good health, spirits, and an equable temper, therefore *go*. Do

not say, "I will finish this needlework," or "arrange this room," but put health before all else, and resolutely go out into the air. A weak excuse, which we frequently hear, is, "Oh, I cannot stop to dress." Make it a rule to have always ready a simple dress, easily arranged; don this, and enjoy the morning air.

"Morning air!" exclaims a busy matron with visions of unmade beds and carpets unswept.

"Yes," we repeat, half an hour then will tone you up for the day. If need be, take the children, and your walk will be doubly enjoyable as you listen to their artless prattle. A famous botanist dated his love of plants to the early morning walks taken with his mother. She knew something about their habits and names, just enough to inspire him with a determination to know more. Not long since, a young mother said, "When you proposed 'the constitutional' for me, I thought it a luxury I could not afford. I had been taught in my old New England home that every good housekeeper always finished her domestic duties before going out. I resolved to try your method, not, however until health and strength were failing, and the care of two children made me nervous and fanciful. Now, for more than a year I have thrown open my windows, exposed bedding and room to a current of pure air, and then put on over my morning dress a little suit of waterproof; for each child I made a simple ulster, which covered the plain or soiled dress underneath. Thus arrayed we went out for one hour, no more and no less. The good has been beyond estimate; even my husband rejoices in my common-sense ideas and increased strength."

"Suppose some one should call and afterward represent you as an untidy housekeeper?"

"I am wiser now, I know very well that the untidy women are those who leave things entirely undone, or badly done, not those who consider health first and take the remainder of their day for things of less moment. Hundreds of people make up their beds without airing them at all, or only for a few moments; and a good physician will tell you *that is untidy.*"

Our friend is fresh and blooming once more; she has exchanged a treadmill existence for one of variety, and the fret and worry which was creeping into her face has passed away.

The more duties a woman has to per-

form, the more need has she for uniform good temper, and strong healthy nerves. These she can never have if her days and nights are spent within four walls, with little to cheer and much to wear out the vital forces.

If it be true that all have a certain amount of vitality, is it not worse than folly to expend any portion of it in over-nice duties which give mere animal gratification? Take, for instance, the washing of clothes. How many women fret for fear it might storm on Monday, as if the salvation of the family depended on the restoration of its dirty linen on a certain day!

As a rule, it is well to take things as easy as possible, but some are so constituted that restlessness is their portion. Some women are miserable when idle, even when rest is necessary. This is a morbid condition, and quite as reprehensible as the laziness which afflicts a few unfortunate women who have nothing to do.

When to rest, how to rest, and where to rest, each must determine for themselves, but all know that nature rebels unless true and complete rest is taken during some portion of each day. When this is done, and women learn that fussiness is not neatness, and that fretfulness is a deadly foe to beauty, our women will not fade in their youth or look careworn and anxious, as hundreds now do.—*Sel.*

TEMPERANCE REFORM IN AFRICA.

ONE of the curses of civilization which follows closely the efforts of foreign missionaries to enlighten the benighted heathen, is drunkenness. In Zulu Land this vice became so general that the chief, Khame Shoshong, finally resolved to put a stop to it. The following is an account of his efforts in the cause of temperance, as told by a missionary:—

Khame will have no drink sold in his town. He had seen the evils of that, and he wished to rule over a "nice town," as he said. He called the white men together and told them his desire. They pleaded to be allowed to bring in the cases, for they contained medicine, and the large casks they promised to leave untouched. Khame consented, but he must see no drunkenness. The cases came, and drunkenness was the result. Khame called the white men together again, and declared his determination to have no drink brought into

his town. "But you will allow us to bring in a case for private use at our table?" "Bring none," said Khame, "I will allow none. You made a promise that if I allowed the cases only, there should be no drunkenness." One man ventured to press his views, and got effectually put down. He was an old hotel keeper, and liked the trade. "What!" said Khame, "will you venture to speak? You made me such and such a promise, and then brought a huge cask to the river; so I refuse even the cases, and there's an end of it." That was enough for that day. Khame tried fines and threats, and finally, the Bechuana chief's last resort, banishment from the country. It appears a summary process, but it is really less hurtful to the European than our mode of confiscation, fine, and imprisonment, for smuggling the drink through the country without a license. After reminding the traders of their disregard alike of his warnings and of the laws of his country, which conduct on their part, he attributed, and perhaps not unjustly, to his nationality and color, Khame continued: "Well, I am black, but, if I am black, I am chief of my country at present. When you white men rule in the country, you will do as you like; at present I rule, and I shall maintain my laws, which you insult and despise. You have insulted and despised me in my own town because I am a black man; you do so because you despise black men in your hearts. If you despise us, what do you want here in the country that God has given us? Go back to your own country (and he mentioned them by name); take everything that you have got; strip the iron roofs off the houses, the wood of the country and the clay that made the bricks you can leave to be thrown down. Take all that is yours and go." * * * *

"I am trying to lead my people to act in accordance with that word of God which we have got from you white people, and you show them an example of wickedness such as we never knew. You the people of the word of God! You know that some of my own brothers have got to like drink, and you know I do not want them to see it even, that they may forget the habit, and you not only bring it and offer it to them, but try to tempt me with it. I make an end of it to-day. Go, take your cattle and leave my town, and never come back again."

The utmost silence followed Khame's words. Sheam and utter bewilderment

fell on most of them. They had expected nothing like this, and they lost the very power to reply. . . . Steps were then taken by the chief with reference to the native beer. First, its sale was disallowed; then his young men were forbidden to drink it, and finally a great meeting of the whole town was called, and its manufacture prohibited. "You take corn that God has given us in answer to prayer," said the chief, "and destroy it; you not only destroy it, but you make stuff with it that causes mischief among you."

THE CABBAGE IN ANCIENT TIMES.

CABBAGES were thought of highly by ancient nations, and the Egyptians gave the cabbage the honor of letting it precede all their other dishes; they called it a divine dish. The Greeks and Romans had a great affection for cabbage, and conceived the idea that the use of cabbage keeps people from drunkenness. I am persuaded that the constant eating of certain vegetables kills the desire for alcoholic beverages. The Greek doctors ascribed all kinds of virtues to the cabbage. It was thought to cure even paralysis. Books were composed to celebrate the virtues of the cabbage, and ladies partook of it soon after childbirth. The Romans thought even more of the cabbage than the Greeks. They ascribe to it the fact that they could for 600 years do without doctors, and Cato actually maintained that cabbage cured all diseases. The ancients knew several kinds of cabbage,—the long-leaved green cabbage, the hard white, so much used in Germany for "sauer-kraut," or fermented cabbage, the curly, and the red. This last seems to have held the place of honor, and was first introduced by the Romans into Gaul, or France, and then brought to Great Britain. Later, the green-leaved cabbage was introduced. The Greeks were fond of aromatic seasonings,—of oil, raisins, wine, and almonds. They boiled or stewed the cabbage, and seasoned it with cummin, coriander seeds, with oil, wine, and gravy, making rich dishes of a vegetable which we now boil in water and reckon among the plainest food. Something like a remembrance of cooking cabbage among the old Greeks has come down to the modern Greeks, for they stuff cabbage leaves with dainty minced meat, and then stew them with gravy. —*Sel.*

WHISKY IN THE ARMY.

A WRITER in the *Christian Woman*, recounting some of the reminiscences of our late civil war, says of the use of alcoholic liquors in hospital life:—

"One of the direst evils in the army was the prescription of whisky and other alcoholic drinks for every kind of disease,—a reckless use of stimulants; and there was no defense for the patient. He *must* take what the doctors prescribed for him without protest; and many a pure, temperate boy, who went out with clean lips and untainted soul, came back, because of this evil, wrecked in health and morals.

"The surgeon in charge of our sanitary boat was no exception to this rule. He drank freely himself, and wanted everybody to do so. Every evening, on the plea of preventing sickness, he would mix a quantity of quinine and whisky, and go about from one to another of the workers, compelling them by force of will, and claims of superior knowledge, to take a dose of the vile compound. It was a disgusting dose, but most of the workers took it as ordered. A few of us never touched a drop of the vile stuff. Now for the results. Did it prevent sickness? No; the doctor himself came down nigh unto death, his wife died, and every worker that followed that prescription had to be sent home on account of sickness; while those of us who used *lemons* instead of whisky, remained well, although we were equally exposed to the malaria, to rank odors from the reeking battle-field, and worn down by hard service in the hospitals."

ENORMOUS COST OF LIQUORS.

SOMETHING of an idea of the enormous waste of money in the use of liquor and tobacco may be gained by a consideration of the following statistical facts developed by an analysis of the revenue returns for the last fiscal year. The amount of revenue paid by the State of Illinois, the largest sum paid by any of the States, was, in round numbers, \$23,000,000, of which \$19,500,000 was from spirits. Ohio is next, with a total of \$18,000,000, of which \$13,000,000 was for tobacco products. New York paid \$16,000,000, of which \$3,000,000 was for spirits, \$7,700,000 for tobacco, and \$4,300,000 for fermented liquors. The latter amount is four times greater than that reported from any other State on the same article. Virginia paid \$6,-

700,000, all but \$400,000 being for tobacco; Kentucky paid \$3,800,000, all but \$2,000,000 being for spirits. Indiana paid \$6,000,000,—\$5,000,000 being for spirits.

From the above it appears that six States alone paid a revenue of over \$65,000,000 on tobacco and alcoholic liquors, more than five-sixths of the total revenue paid. A sum sufficient to build three thousand churches paid for the privilege of manufacturing articles which aggravate human misery, increase human suffering, encourage vice, and shorten life.

Ancient Testimony for Temperance.—

The following is from the pen of the celebrated English Statesman and scholar, Sir Walter Raleigh :—

“Take especial care that thou delight not in wine, for there was not any man that came to honor or preferment that loved it; for it transformeth a man with a beast, decayeth health, poisoneth the breath, destroyeth natural heat, brings a man's stomach to an artificial heat, deformeth the face, and to conclude, maketh a man contemptible, sour, old, and despised of all wise and worthy men; hated in thy servants, in thyself, and companions; for it is a bewitching and infectious vice. A drunkard will never shake off the delight of beastliness; for the longer it possesses a man, the more he will delight in it; and the older he groweth, the more he will be subject to it; for it dull-eth the spirits, and destroyeth the body, as ivy doth the old tree; or as the worm that engendereth in the kernel of a nut. Take heed, therefore, that such a cureless canker pass not thy youth nor such a beastly infection thy old age; for then shall all thy life be but as the life of a beast, and after thy death thou shalt only leave a shameful infamy to thy posterity, who shall study to forget that such a one was their father.”

Habits.—Like flakes of snow that fall unperceived upon the earth, the seemingly unimportant events of life, succeed one another. As the snow gathers together, so are our habits formed. No single flake that is added to the pile produces a sensible change; no single action creates, however it may exhibit, a man's character; but as the tempest hurls the avalanche down the mountain and overwhelms the inhabitant and his habitation, so passion acting upon the elements

of mischief, which pernicious habits have brought together by imperceptible accumulation, may overthrow the edifice of truth and virtue.—*Jeremy Bentham.*

—Collector Merritt, in charge of the New York Custom House, has prohibited the sale of alcoholic drinks of any kind in that building.

—The Iowa Central R. R. company has issued an order prohibiting its employes from smoking, or using alcoholic drinks while on duty.

—The North Carolina legislature has passed a bill prohibiting the sale or purchase of liquors in the State under heavy penalties.

POPULAR SCIENCE.

—The late Lewis Cornelius, of Milford, Pa., was doubtless the largest man in America. His height was six feet, and his weight, when in good health, was seven hundred pounds. His arm just above the elbow measured two feet and two inches in circumference, and that of his wrist, one foot and three inches. His circumference just below the waist was eight feet and two inches.

—As an incentive to progress in Sanitary science, the London Society of Arts has offered three silver medals for as many London houses as may be found, on examination, to be furnished with the best Sanitary appliances.

—A huge mammoth has been discovered in Siberia at a depth of twenty-two feet below the surface. It is to be exhumed in September.

—It has been proposed to utilize the swift current of rivers in generating electricity for lighting towns and other purposes for which power is required. The proposed method is a system of anchored floats carrying current wheels connected with dynamo-electric apparatus.

A New Industry.—It is stated in the *Mechanic's Magazine* of London that there are very extensive works at Stipney Green, London, in which great quantities of artificial leather are manufactured from vegetable substances, the principal of

which is India rubber. In appearance it very closely resembles common leather. It is used quite extensively in book-binding, harness-making, and for many other purposes. This new industry may perhaps subvert the argument so often advanced by the disciples of anti-vegetarianism,—that it is necessary to sacrifice animal life to obtain leather.

A New Illuminant.—Herr Kordig, a Hungarian, has lately been performing some very curious experiments at scientific meetings in Paris with a new volatile combustible essence, which is offered for lighting purposes. Having arranged on the table several lamps in which the essence burns with a beautiful, bright flame, Herr Kordig pours a quantity of the liquid on his hat and lights it, whereupon a long flame springs up to the ceiling. The hat is then shown to be intact. To the surprise of the audience, he puts his hat on his head and waits till the flame goes out. He pours some of the liquid on the floor and on a handkerchief and lights it. The floor and the handkerchief are in no way damaged. Some drops may be put in the hollow of one's hand and burn without producing appreciable pain. These extraordinary facts are easily explained. Herr Kordig's mineral essence boils at about 35° C., and the tension of its vapor is considerable, so that it is not the liquid that burns, but its vapor. The new essence is said to be obtained quite simply from natural oil-beds recently discovered in Hungaria.—*Pacific States Watchman.*

A Curious Snow Storm.—The following highly singular facts are related by the *Journal of Science*, respecting a fall of snow strangely tinged with red dust which occurred on the 25th of last April, in the French department, Basses-Alps and Loire:—

“The red matter was so abundant that from Barcelonette, all the mountains looked ochery, up to 2800 to 3000 meters. Above this the snow remained quite white. The powder, then, had probably a terrestrial and not a cosmic origin; but it appears not to be volcanic, like the ash which has sometimes fallen in Scandinavia after Icelandic eruptions. It also differs from the sand of Sahara, often carried great distances by winds. The point whence it came is still uncertain, but it is interesting to note that the same kind of substance had fallen in 1846, precisely in the same departments, and in 1863 in the

Eastern Pyrenees. Showers of similar dust seem to have fallen in Saone-at-Loire on the 15th of April, and in certain parts of Algeria on the 24th.”

Ostrich Farming.—The *Illustrated Scientific News* for June has an interesting article in reference to Ostrich culture. It seems that one man in South Africa, a Mr. Douglass, has a poultry yard of 1200 acres on which he has 900 Ostriches, valued at \$150 apiece. These gander-legged birds are raised for their feathers, which yield the owner about \$75 a piece, annually. The Ostrich is deprived of his royal plumage twice a year. The hatching is done by means of an artificial incubator, which is the product of Mr. D's ingenuity. This new industry is said to be very remunerative, ranking next to diamond-hunting and sheep-raising. Already parties in Southern California are contemplating Ostrich culture in that country.

Recent Excavations in Pompeii.—A recent German periodical contains the following interesting report of some new excavations in Pompeii:—

In the Via Stabiana, a large and elegantly-decorated private mansion has been entirely laid bare. It contains some of the most beautiful frescoes yet discovered; several of the paintings have come to light with almost spotless freshness and integrity. Unfortunately, much injury was occasioned afterward by the carelessness and rough procedure of the workmen employed. There are medallion wall-paintings of Mercury, Minerva, Juno, Mars, Vulcan, and Venus; frescoes representing the wounded Adonis, together with the goddess of Love and a Cupid with an inimitable expression of grief; an Ariadne left by Theseus; a Danae with the young Perseus; Paris surrounded by his flock; Bacchus on the panther, painted on the wall in the shape of a gilt statue; a Homer, and various other paintings, not a few of which are provided with Greek inscriptions of names or of verses. Some portions of the house are got up in a pure Greek style; others are a mixture of the nobler Hellenic and of the showier and less congruous Roman style. One of the wall-paintings was found injured in the center by a hole, through which evidently the proprietors had entered, after the great catastrophe, for the sake of saving some valuable property.”

GOOD HEALTH.

BATTLE CREEK, MICH., JUNE, 1881.

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

TERMS, \$1.00 A YEAR.

AN INGENIOUS HUMBUG.

A SUBSCRIBER wishes to know our opinion of "Boyd's Batteries." He states that the *American Agriculturist* calls this battery a humbug, and wishes an expression from us respecting its value as a remedial agent. As our correspondent says, "it seems to do no harm"; but this is the best we can say of it, though it is really questionable whether we may justly say that a thing is harmless which is made a means of getting money under false pretenses. We have no hesitation, however, in saying that Boyd's Battery is the most contemptible little humbug we have ever had the fortune to meet. It has not even the virtue of being a battery at all, notwithstanding the manufacturer of the little trinket claims that the metals composing it are so ingeniously arranged that the electricity works into the body like a corkscrew, thus reaching the innermost parts of the organism. We know of no way in which the thing can be of any benefit except by operating upon the imagination as an amulet, like which it is to be worn suspended upon the neck, unless it may serve, as suggested by the editor of the *Popular Science Monthly* respecting the utility of Blue Glass, as a *foolometer*, to measure the length, depth, and intensity of the foolishness of the nineteenth century. It is certainly very efficient as a means of detecting the last named disease, and much to be commended for that purpose, although the malady is of such an obstinate nature that it may seriously be doubted whether even so potent an instrument as Boyd's Battery which "insinuates its subtle influence into the interior of the body like a corkscrew," will be able to cope with it successfully.

HAIR TONICS AND BALDNESS.

THE sale of hair tonics of all descriptions has become perfectly enormous within the last few years. This is probably due to the great increase in the frequency of baldness. It is no uncommon thing to see very young persons with scarcely a trace of hair on the top of their heads. A few years ago we had the curiosity to count the number of bald pates visible in a large audience in New York City, our position in the gallery giving us a good opportunity for observation. We were astonished at the number, finding about one male head in every fifty devoid of a portion of its proper covering. Very likely there were many other bald scalps covered with hair of foreign growth which were not included in the count.

If the claims made for any one of the various patent hair tonics described in the advertising columns of the newspapers were based on truth, it is hardly credible that bald heads should be so remarkably numerous, and increasingly so. The fact is, many cases of baldness are incurable by any known means; and the rest will generally recover by the restoration of the general health, and the employment of such simple means as giving the scalp a daily and vigorous brushing with cold water.

The following from the pen of an eminent French hair-dresser is *apropos* in this connection:—

"Very often the hair falls out after sickness. In such cases it generally grows again without the aid of any hair tonic whatever; but when it falls out from natural causes it never grows again. The celebrated Dr. Bazin, who was formerly

physician in chief of the St. Louis Hospital at Paris, and who is known throughout the world as the most learned specialist for affections of the skin, told me one day that there was nothing that could make the hair grow after the baldness had come on gradually. This I believe firmly, for, if there was anything of the kind, we would not see so many New York doctors with heads as completely destitute of hair as the backs of turtles. I am even persuaded that these gentlemen would follow the example of those Greek heroes who, under the leadership of Jason, made a voyage to Colchis to bring back the Golden Fleece. Modern Argonauts, the doctors, would consider themselves happy if they could bring back from such a voyage the secret of restoring the human fleece.

"I don't think I am far from the truth when I say that during the past twenty-five years that I have practiced the profession of hair-dresser, I have made the trial upon different bald heads of more than five hundred different hair tonics, and I am bound to admit that I never saw a single head the hair of which was restored after baldness. At the end of so many failures, I am completely undeceived as to the value of all the preparations, and I would not now recommend any one of them, because I would be afraid to commit the crime that is designated by the words, 'obtaining money under false pretenses.' In my pathological studies upon the hair, I have found that people who perspire a great deal from the head are apt to get bald. The bad habit of wearing hats indoors is also very hurtful to the hair. In 1806, after the famous battle of Jena, in which the Prussians were completely defeated by Napoleon I., Baron Larrey, the celebrated military surgeon, perceived that many of the German prisoners were completely bald. Surprised, he made inquiries as to the cause of this, and he found that they owed their baldness to the shape—as homely as unhealthy—of their caps. The foul air of their head-gear, having no issue, destroyed the vitality of the hair."

LOOK OUT FOR LEAD POISONING.

WITHIN the last few years a new source of lead poison has arisen in the use of tin fruit cans in the coating of which lead has been largely used. Not long ago a man who is engaged in the manufacture of tin cans, confessed to us that he used the cheapest kind of tin, which invariably contaminates with lead. We have tested a great many cans which contained tomatoes, peaches, peas, beans, and other fruits or vegetables, and have almost invariably found them to contain lead. As lead is easily dissolved by the acids of fruits, and even by the juice of vegetables, it is evident that this is a dangerous source of poisoning. Tin cans are unsafe for use for canning purposes, and should never be used. We would advise the discontinuance of food put up in tin cans, which is sold in great quantities by grocers everywhere, until satisfactory evidence is produced that our large canning establishments cease to employ the cheap lead tins and use only the genuine article. Last year there were put up nearly 40,000,000 cans of tomatoes alone, and it is more than probable that every can exposed the users to serious injury through lead poisoning.

The test for lead in tin is so simple that any one with the necessary appliances can easily apply it. The Sanitarium Detective gives full directions about testing for lead in tin, and furnishes the necessary material for the test, as well as for detecting a half dozen other common adulterations.

Save the Little Ones.—As the hot weather approaches, the mortality of young children, especially infants under one year of age, will greatly increase. July, August, and September, are the months which show the greatest number of infant deaths. This great increase of mortality is usually attributed to the intense heat of the summer months; and doubtless the conditions of the atmosphere and other meteorological states may have something to do with it; but from repeated observations in many cases we are most firmly convinced that the chief trouble, after all, lies in the matter of diet, and we are fully satisfied

that by proper precautions most of the little ones annually sacrificed might be saved as well as not.

Errors in diet, such as the use of inappropriate food, feeding sour milk, or sweet milk through a sour nursing bottle, over-feeding, feeding too often or at irregular hours, these are in our opinion some of the principal of the causes of sickness and death among young children at this season of the year.

Next month we shall present an article on this subject in answer to many requests for information respecting the proper management of infant diet.

Beer and Kidney Disease.—There is ample evidence for the belief that beer-drinking is one of the most prolific sources of disease of the liver and kidneys. An eminent physician says:—

“The fact can no longer be disguised, that the largely increasing use of beer and malt liquors is materially augmenting our business by reason of the patients who are becoming prostrated by kidney and liver complaints; and the world has just awakened to the startling fact that whereas, ere the era of lager beer dawned on America, Bright’s disease and its consequent evils were almost unknown, the victims of these maladies can to-day be reckoned by hundreds of thousands.”

Buggy Beans.—The following from the *Scientific American* is of interest as calling attention to a new source of disease:—

Recently several cases of sickness occurred in Kingston, N. Y., it was supposed by eating diseased pork. Specimens of the pork were sent to Dr. George F. Shrady, of this city, for examination, at the request of Dr. E. H. Loughran, Health Officer, Kingston. Dr. Shrady reported that he could discover no evidence of disease in the pork, and that it was entirely free from trichinæ. All of the persons who were made sick, as supposed, by the pork, also ate heartily of beans, the dish being baked pork and beans. After the report of Dr. Shrady, the subject was allowed to rest, as the sick persons all re-

covered, though for a time it was feared that several of them would die. It was afterward discovered that the trouble was caused by the beans, they being infested with small black insects. The bean which is thus infested presents on its surface a faint, black spot, underneath which one or more insects may be found. Persons who have eaten heartily of such beans have been taken violently sick with vomiting, accompanied by general weakness and prostration, which continues for a few days only.

A Vegetable Diet for Children.—In a recent article, Dr. T. S. Clouston, lecturer on mental diseases in the University of Edinburgh, says:—

“My experience is that children who have the most neurotic temperaments and diatheses, and who show the greatest tendencies to instability of brain, are, as a rule, flesh-eaters, having a craving for animal food too often and in too great quantities. I have found, also, a large proportion of the adolescent insane had been flesh-eaters, consuming and having a craving for much animal food. I have seen a change of diet to milk, fish, and farinaceous food produce a marked improvement in regard to the nervous irritability of such children. And in such children I most thoroughly agree with Dr. Keith, who, in Edinburgh, for many years, has preached an anti-flesh crusade in the bringing up of all children up to eight or ten years of age.”—*Exchange*.

Masculine Corset Wearers.—Lucy Hooper, the famous lady newspaper correspondent from Paris, says that among the gentility of Vienna, Austria, corset wearing is very fashionable with the young men. A gentleman who had been an inmate of a boarding school in Vienna says that he wore corsets during the whole five years that he was there, as did also his sixty fellow students. This gentleman claims to have been informed that corset wearing is not unusual among English gentlemen, especially when riding horseback, and states that tight lacing among men is

becoming very common in Europe. In London several corset manufacturers advertise themselves as gentleman stay-makers.

Our readers may be incredulous; but really, why should not men wear corsets as well as women? If woman needs improving by mechanical means, why does not man? We can readily believe that the effeminate modern representatives of the once sturdy nobles of England and Austria would need something as strong as whalebone to strengthen their spinal columns.

Drunken Sparrows.—The New York *Post* tells a story of a man in Kingston, N. Y., who had several bottles of insects preserved in alcohol, which he lately emptied on an ashheap in his back yard. A large flock of sparrows gathered, and, eating the insects saturated with the liquor, *became drunk*. They soon became very noisy, and fought and staggered about until several cats appeared on the scene and killed a large number of them which were too drunk to fly away.

Didn't Want any Sanitary Matters.—A medical friend who is devoted to sanitary reform, and spends his whole time as a sanitary colporteur among the people, reports the following amusing incident which recently occurred in the course of his labors in a large city in the interior of the State of Illinois. Calling at the door of a fine looking residence, a young lady made her appearance, when the following dialogue ensued:—

Sanitary Physician. "Good morning, madam. May I have the pleasure of conversing with you a few minutes on sanitary subjects?"

Aristocratic Young Lady. "We have nothing of the sort in the house, and we don't wish any, sir."

No doubt the young lady told the exact truth; and the same is true of thousands of other families. The value of good sanitary conditions is little appreciated in comparison with the real value. We trust our sanitary missionaries will not be dis-

couraged, even if they do meet with an occasional rebuff of the sort above described. The fact that people who are intelligent on most other subjects are so appallingly ignorant on this, should be an incentive to more active efforts to extend the light of sanitary truth.

A Terrible Smudge.—According to the revenue returns, the number of cigarettes smoked annually has increased in the last ten years from less than 14,000,000 in 1870 to over 400,000,000 in 1880. American young men consume more cigarettes than those of any other nation in the world, not even excepting France, where 300,000,000 are yearly consumed. In the noxious smoke of these 400,000,000 cigarettes, are evaporated the brains, the fortunes, and the constitutions, of the thousands of youthful devotees to the filthy weed.

Poisoning by Rubber Nipples.—A Lyons physician reports two cases of poisoning in young infants, one of which terminated fatally, which were doubtless due to the use of white vulcanized rubber nipples.

Some one has suggested that a small porous sponge placed in the mouth of the nursing bottle, would be a good substitute for all sorts of nipples.

—The legislature of the State of New York has recently passed a bill requiring merchants to provide their lady clerks with suitable seats which they may occupy when not employed. This will abolish a cruelty which has long demanded attention, and it is to be hoped other States will follow the good example thus set.

DR. MOREL, of France, who was for several years connected with Salpêtrière Hospital, where there are more than one thousand insane people, says: "There is always a hopeless number of paralytic and other insane persons in our French hospitals whose disease is due to no other cause than the abuse of alcoholic liquors. In one thousand upon whom I have made special observation, not less than two hundred owed their mental disorder to no other cause."

TREATMENT OF DIPHTHERIA.

ALL agents which are destructive to germs, when used in a form which will not destroy the living tissues, are useful as local applications; but the best preparations are solutions of chlorine, or of some of its compounds, permanganate of potash, and carbolic acid. Strong alcohol has proven very effective in many cases. These solutions must be used thoroughly and often as gargles. At least twice an hour the throat and mouth must be well rinsed. If the patient is too young to gargle well, or if the posterior part of the pharynx is affected, the disinfecting lotion must be applied with a swab, syringe, or an atomizer. A swab can be easily made by tying a small soft sponge or a strip of muslin to the end of a small stick or a lead pencil. In case the nasal cavity is invaded, the solution must be passed through the nose by a syringe. The following directions for the preparation of solutions which we have found to give exceedingly satisfactory results, may be useful to the unprofessional reader:—

CHLORINE SOLUTIONS.—(a) One part of a freshly prepared solution of chlorine gas, or chlorinated soda, in three to five parts of pure water, according to the strength of the solution and the sensibility of the affected parts. Keep tightly corked, and wrap the bottle with a dark cloth or paper.

(b) In a pint bottle place a teaspoonful of chlorate of potash. Drop in a half-teaspoonful of muriatic acid, cork the bottle quickly, and shake it gently in such a way as to bring the acid well in contact with the crystals. A greenish-yellow gas will appear in the bottle. After allowing the bottle to remain closed for ten or fifteen minutes, remove the stopper and pour in quickly half a teacupful of water. Stopper the bottle again immediately, and shake four or five minutes. Repeat the process until the bottle is two-thirds full. Use as strong as patient can bear without causing irritation of the mucous membrane.

(c) Dissolve in a half pint of equal quantities of vinegar and water two heaping teaspoonfuls of common salt. Use very freely.

PERMANGANATE OF POTASH, one of the

most useful of all disinfectants, is a good remedy in this disease. Dissolve in a pint of pure water, in a glass vessel, one-half dram of permanganate of potash or soda. Use of full strength or with an equal quantity of water. This solution will stain clothing upon which it happens to fall, as well as the skin. The stains are easily removed, however, by a weak solution of oxalic acid.

CARBOLIC ACID.—In a solution of one part of glycerine to three of water, dissolve pure carbolic acid in proportion of three to five drops to the ounce. We sometimes employ equal quantities of water and wine instead of the glycerine solution. To some patients the odor of carbolic acid is very disagreeable. For such, a solution containing double the quantity of the oil of thyme may be tried.

If these solutions are carefully prepared and faithfully used from the outset of the disease, the results will be exceedingly satisfactory. They can be obtained of any druggist, and most of them can be readily prepared at home if the materials are at hand. It is important that every family should have the materials for at least one or two of the preparations constantly on hand in readiness for use without delay when occasion may require.

There is no known means by which the growth and development of germs may be more efficiently checked than by the use of cold applications, which should be made to the throat externally, and the patient should be allowed to hold small bits of ice in the mouth and to swallow them occasionally. The cold applications must be made thoroughly enough to reduce the temperature of the throat as near the freezing point as the patient can endure without suffering, as otherwise it will do almost nothing toward modifying the morbid process. The best mode of accomplishing this is to apply to the throat compresses composed of several folds of linen or cotton—flannel may be used when necessary—between the folds of which are placed numerous small bits of ice, or small quantities of snow. The intensity of the cold may be regulated by the quantity of ice or snow used. When the patient cannot bear so great a degree of cold, compresses may be applied wrung out of cold or iced water. The compress must be large enough to cover the throat and extend well around the sides of the neck.

To guard against too prolonged lower-

ing of the temperature and circulation of the part affected, and to relieve pain, once an hour or two the cold compress should be removed and the throat fomented for ten or fifteen minutes.

To alleviate the suffering, and the difficulty in breathing and swallowing, and to facilitate the removal of the false membrane, no single remedy is so efficient as the inhalation of hot vapor. It is not necessary that the vapor should be medicated, although chlorine, carbolic acid, or vinegar may be added with benefit. The important thing is that the vapor should be as hot as can be borne by the patient without discomfort. A temperature of 110° to 120° will be borne without difficulty by most patients. This remedy soon affords the patient so much relief that even little children manifest a very great appreci-

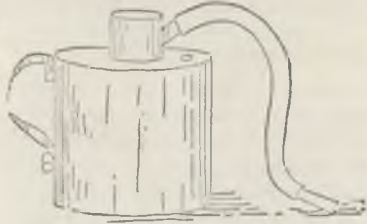


FIG. 1.

ation of it. The inhalation should be practiced once or twice an hour at first, and ten to fifteen minutes at a time. The warm vapor acts like a poultice in relieving the swelling, soreness, and spasm, and in facilitating the separation of the false membrane. In cases of croupous diphtheria, especially when the larynx is involved, this remedy is almost the sole reliance for saving the patient's life.

Different modes of applying this remedy have been suggested. It is of the greatest importance that it be done thoroughly. A very good plan is to attach a rubber tube to the nose of the tea-kettle. A tin tube can be readily made by a tinner if rubber cannot be obtained. As the steam is generating, let the patient hold one end of the tube to his mouth and inhale the warm vapor as freely as he can.

Another very good plan is this: Place in an ordinary tea-pot a few good sized pieces of freshly burned lime. Pour on the lime a boiling hot mixture of vinegar and water. Close down the cover, and let the patient breathe the vapor through the nose. The lime and solution can be renewed as the quantity of vapor dimin-

ishes. This is a very good plan, if well carried out. The best of all arrangements for this object is an apparatus constructed for the purpose, a representation of which may be seen in the accompanying cuts. Every family ought to have an apparatus of this sort ready for use.

No attempts should ever be made at the forcible removal of the membrane. If it is torn off, the mucous membrane is left sore and often raw, or bare. When removed thus, another membrane is sure to form.

The removal of the membranes may be effected by the inhalation of solutions of substances which have the power to dissolve them chemically. A moderately strong solution of lime-water, or of vinegar, answers well for the purpose. An atomizing apparatus is required. In cases

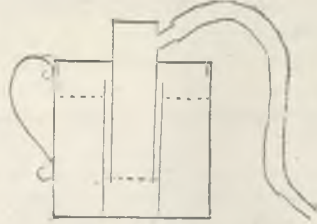


FIG. 2.

of diphtheria of the larynx, this is a very important measure indeed, and must be used very thoroughly.

When the membrane has ceased to form, hot fomentations should be assiduously applied to the throat in addition to the inhalation of warm vapor, which should be continued at least fifteen minutes in each half hour.

The administration of a light emetic is often advantageous in effecting the dislodgment and expectoration of the membranes in cases in which the larynx is affected. A copious draught of lukewarm water is usually sufficient for the purpose; but if vomiting does not follow its repeated use, a small dose of sirup of ipecac or a teaspoonful of powdered alum or ground mustard, or some other simple emetic, followed by warm-water drinking, will generally be sure to induce vomiting.

When the nasal cavity is obstructed by false membranes, thorough syringing should be resorted to, the solution consisting either of equal parts of good vinegar and warm water, or a solution of lime, five grains of freshly burned lime to the ounce of water. The syringing should be

continued fifteen or twenty minutes at a time, and renewed at brief intervals until the membrane is softened and comes away in pieces. The face of the patient can be protected during the syringing so that the skin will be in no way unpleasantly affected. Usually very great relief may be given the patient by this measure.

GENERAL TREATMENT.—For subduing the fever, no remedy equals water in antiphlogistic effects. In general, the febrile action accompanying diphtheria does not rise so high as in most other febrile diseases; yet this symptom is one of no small importance. The same means should be employed as in case of fever.

Care must be taken continually in the use of water in this disease, that the patient has no tendency toward collapse. If the pulse begins to flag, is slow and feeble, while the skin is cool, no cooling applications are necessary. Warm applications are needed.

Care should be exercised that the limbs be kept warm. Cool compresses may be applied to the head, even the ice-cap when necessary.

At the outset of the disease, when the patient often complains of chilly sensations, a warm blanket pack, given by wringing a woolen sheet out of water a little above blood heat, and wrapping it snugly about the patient, will be found a very excellent remedy, not only for the chilliness, but also for the muscular soreness, which is also a frequent symptom of the onset of the disease.

Diarrhea, vomiting, and the other minor symptoms which often accompany this disease, are to be met by the usual remedies. For troublesome nosebleed, which not infrequently occurs when the nasal cavity is affected, the nasal douche, employing a hot solution of chlorate of potash is the best remedy.

For sustaining the patient, too great reliance is put by many upon the large use of iron and frequent feeding. We have never seen sufficient evidence of the utility of these methods to convince us of their efficiency. Others use stimulants in great quantities, which we believe to be productive of more harm than good. What the patient needs is nutrition, not stimulation. If overcrowded with food, and plied with aliment at too frequent intervals, the nutritive apparatus will have no time for the elaboration of food, and no time for rest. It will be always engaged in the

preliminary work of digestion. The overworked stomach will be sure to fail up with indigestion, and the patient will really receive a much smaller amount of available nutrition than if food is taken in proper quantities at intervals sufficiently far apart to allow time for digestion.

Give the patient three meals a day at regular hours. Let the diet consist principally of oatmeal or barley gruel, with fruit and milk toast. If there is difficulty in swallowing solid food, let the patient have plenty of milk, beef soup or broth, at intervals of three to five hours.

If the patient falls into a state of collapse, the pulse being slow and weak, the skin cool, the respirations rapid, with the other usual symptoms of that condition, the temporary use of stimulants may be useful. We have used electricity, both the galvanic and the faradic, in such conditions with excellent results. Dry heat is also a useful stimulant in such cases. All may be used in conjunction.

PARALYSIS, and the other secondary affections which often follow this disease, should be treated on the general principles governing the treatment of those affections from whatever cause. In the case of paralysis, after the disease is fully developed, electricity should be employed. This, with out-of-door exercise and time, will effect a cure in most cases. Tracheotomy is a surgical operation sometimes performed when the symptoms indicate imminent danger of suffocation; but before it is resorted to, the condition of the patient is already so hopeless that recovery rarely occurs.

THE CITIZENS' SANITARY ASSOCIATION OF BATTLE CREEK.

THE Sanitary Convention held in this city a few weeks ago created so great an interest in the subject of sanitary reform that the opportunity seemed very favorable for the organization of a Sanitary Association. A call was accordingly made, in response to which a fair delegation of citizens assembled in the City Hall for the purpose of taking the matter into consideration. The result of the meeting was the election of a committee of five to take into consideration Articles of Organization which were presented to the meeting by one of the speakers present, and also to nominate officers.

At a meeting held one week later, at which a large number of citizens was present, the following articles of organization were unanimously adopted:—

Articles of Organization of the Citizens' Sanitary Association of Battle Creek, Mich.

NAME.

This Association shall be called "The Citizens' Sanitary Association of Battle Creek, Michigan."

OBJECTS.

The object of this Association shall be:—

1. To co-operate with the local board of health and health officers of the city in carrying out such measures as may be adopted for the benefit of the public health.
2. To provide its members and others who may desire, at moderate expense, with such inspection as shall acquaint them with the sanitary condition of their own dwellings and their surroundings, public buildings and other buildings, and premises in which they may be specially interested; also to provide at a minimum cost analyses of such articles of food and of household use as may be suspected of harmful adulterations.
3. To encourage by every proper means an interest in sanitary science among the people, and to diffuse knowledge respecting the nature of the disease, its causes, and the best known methods of prevention.
4. To collect useful information on all subjects pertaining to sanitary science and the protection and prolongation of life.

MEMBERSHIP.

Any resident of this city may become a member of this Association by subscribing to the Articles of Organization, and paying into the treasury the sum of fifty cents.

PRIVILEGES AND DUTIES OF MEMBERS.

1. Each member shall be entitled to vote in the transaction of all business which shall come before the Association.
2. Members shall be entitled to an annual inspection of their dwellings and premises; and also to inspection, at other times, which may be rendered necessary by disease or other cause, at the smallest possible expense which can be made to cover the actual cost of the work done. Members may also call for the inspection of other buildings and premises upon the same terms.
3. Each member shall understand that in signing the Articles of Organization he pledges himself to co-operate in the most hearty manner possible with the Executive Committee in carrying into practice the principles of correct sanitation, and to do all in his power to correct such evils or deficiencies as may be pointed out by the Inspecting Committee. In case of any misunderstanding or disagreement between members of the inspecting committee, or between members themselves, the matter may be referred to the Executive Committee.

OFFICERS.

The officers of this Association shall consist of a President, Vice President, Secretary, Treasurer, and Inspecting Committee of five, one of whom shall be chosen from each ward of the city; all the officers shall be elected at the annual meeting. The several officers shall together constitute an Executive Committee.

DUTIES OF OFFICERS.

The President, Vice President, Secretary, and Treasurer shall perform the duties usually devolving upon such officers.

It shall be the duty of the members of the Inspecting Committee:—

1. To qualify themselves by the study of suitable works upon the subject, if not already competent, to be able to give correct opinion in all ordinary cases requiring sanitary inspection.
2. To make a sanitary inspection of any dwelling, premises, or public buildings, or to investigate any nuisance concerning which complaint may be made, when requested by a member of the Association.
3. To make a report of the investigations made as soon as possible after receiving a request to make an inspection, to both the person making the request and the Secretary of the Association, on blanks prepared for the purpose, or in the form of a written statement in case blanks are not furnished.
4. In cases requiring special skill and large experience, to employ a sanitary expert, provided the individual making the request for inspection is willing to incur the necessary expense.

The Executive Committee shall have general charge of the business of the Association, may fill its own vacancies, and shall appoint the following committees:—

1. A committee on the diffusion of sanitary knowledge, whose duty it shall be to secure the publication of appropriate articles in the local newspapers, and to arrange for public lectures on appropriate subjects whenever practicable.
2. A committee on analyses, whose duty it shall be, (a) To become acquainted with the simpler methods of detecting harmful adulterations or poisoning of food and other articles in common use, such as wall paper, tin-lined vessels, etc., and such other dangers as threaten life or health through food or drink. (b) To make a careful examination of such articles as may be presented for examination, at the smallest expense to the member presenting the same, that will cover the actual cost of the examination; and in case of inability to make a satisfactory examination, to employ an expert to do so, provided the person most interested is willing to meet the necessary expense.

MEETINGS.

An annual meeting of the Association shall be held for the election of officers, the time and the place being appointed by the Executive Committee, at which one-third of the membership shall constitute a quorum.

A monthly meeting for the purpose of discussing sanitary subjects, listening to appropriate papers and addresses, shall be held at such time and place as shall be determined by the Executive Committee.

Special meetings may be called by the Executive Committee.

The Executive Committee shall meet once in three months, at least, and more frequently when necessary, meetings being called by the President.

ASSESSMENTS.

An assessment to cover necessary expenses may be made at any regular meeting at which one-third of the members are present, no assessment to exceed the sum of \$1.00.

AMENDMENTS.

The foregoing articles may be amended by a two-thirds vote at any regular meeting of the Association, at which one-third of the members are present.

The committee reported in favor of the following persons as officers for the ensuing year:—

President, Rev. D. F. Barnes.
Vice President, C. F. Bock.
Secretary, Dr. J. H. Kellogg.
Treasurer, B. T. Skinner.

Inspecting Committee, 1st ward, E. W. Flag; 2d ward, Dr. E. Cox; 3d ward, J. M. Galloap; 4th ward, Dr. J. H. Wattles; 5th ward, Dr. Robertson.

By unanimous vote the report of the committee was adopted, and the above-named persons elected as the officers of the Association.

A committee was then appointed by the Chair to introduce the permanent President, Rev. Mr. Barnes, to the Association, who took the chair after making a few appropriate remarks.

After the transaction of various items of business, Dr. S. S. French, health officer of the city, presented a copy of an act providing for an extra appropriation of the sum of \$2,000 for the uses of the State Board of Health. He also presented a petition requesting the Senator and Representative of this district, to give their support to the bill and to secure its passage, if possible. The petition was signed by all present.

The following preamble and resolutions were adopted at a meeting of the Citizens' Sanitary Association of Battle Creek, at a regular meeting of the Association, held at the City Hall, of this place, May 10, 1881:—

WHEREAS, The work of the State Board of Health is everywhere recognized as one of the most important branches of the public service, and,

WHEREAS, We believe that the efficiency of our State Board of Health would be very greatly increased by the increase in the annual appropriation suggested by the Governor, therefore,

Resolved, That we do hereby respectfully request the Senator and Representative of this district to use their influence to secure the passage of the House-Bill, file No. 220, providing for an additional appropriation for the uses of the State Board of Health.

On motion, it was directed that a copy be sent to Hon. M. Patterson and Hon. Chas.

Austin, Senator and Representative of this district.

We are glad to add to the last paragraph that we have been assured by Mr. Austin in a private letter that the bill will have his support in the House as well as in the Committee of Ways and Means.

The Sanitary Association has already acquired a large membership, and bids fair to ultimately be a means of accomplishing great good.

Adulteration of Jellies.—We feel very doubtful whether it is possible to purchase a genuine article of fruit jelly. Every specimen we have been able to examine has contained gelatine, colored with some common dye-stuff, and sweetened with artificial sugar made from corn by the sulphuric acid process. Those who want a pure article of jelly will have to make their own.

LITERARY NOTICES.

A HANDSOME PAPER.—The *Illustrated Scientific News* for May is before us, looking handsomer, if possible, than any of the preceding issues. Since its change of publishers last January, this magazine has improved with each succeeding number. The present issue of the *Scientific News* is overflowing with handsome engravings and interesting and instructive matter.

Among the various subjects illustrated in this issue is a superb specimen of cut-glass ware; an exhaustive article on asphaltum and its use in streets and pavements; a new and ingenious hand-car, shown in operation; a new steel steamer for use in shallow rivers; the new Jobert telescope, and an interesting paper on physics without apparatus, also fully illustrated.

Every number contains thirty-two pages full of engravings of novelties in science and the useful arts. To be had of all news dealers, or by mail of the publishers, MUNN & Co., 37 Park Row, New York, at \$1.50 per annum; single copies 15 cents.

THAT reader must be hard to please indeed who in the diversified contents of the *North American Review* for June should find nothing to win his attention. First, we have an article by the Hon. Hugh McCulloch, on "Our Future Fiscal Policy," treating of the problems of refunding, the remonetization of silver, and the restor-

ation of the United States to their just rank among the maritime nations of the world. George B. Loring writes of the "Patrician Element in American Society," but the reader need apprehend no glorification of artificial rank, for in the author's estimation the patrician element here is simply the strongest popular element,—that portion of the people, whatever their lineage, who are engaged in developing the mental, moral and material wealth of the Republic. Dorman B. Eaton makes a spirited defense of civil service reform; Prof. W. G. Sumner states very clearly the argument for free ships; Frederick Douglass writes of the "The Color Line;" Désiré Charnay, of "The Ruins of Central America;" Dr. Austin Flint discusses the benefits of vaccination; J. M. Mason asserts the lawful power of the government to regulate railway charges; and finally, Prof. E. S. Morse sets forth the evidences of the existence of man upon this continent in prehistoric times.

THE SANITARY NEWS.—We have received two numbers of a new journal bearing the above significant title. It is edited by Drs. R. C. S. Reed and C. A. L. Reed, of Hamilton, Ohio, and is devoted to the exposition of sanitary subjects. We are glad to see another added to the list of sanitary periodicals, which are yet too few to arouse the people to the interest in sanitary matters demanded by the importance of the subject.

GOOD COMPANY, Springfield (Mass.), issues Nos. 19 and 20 together, making a double number. Lieutenant Frederick Schwatka, the commander of the Franklin Search Expedition which returned last autumn, has two of his series of articles on experiences and adventures in the Arctic world, under the title, "In the Land of the Midnight Sun." The first tells of previous Franklin expeditions, and the second begins the narrative of his own.

As befits the season, there are numerous articles about travel and adventure in a wide variety of localities. Perhaps the most important of these is a pen-picture from Spain, entitled, "The Caliphate of Cordova." It is enough to say that it is in the best style of Mrs. Lizzie W. Champney, who made a trip through that country last season. Relating to places nearer home, are "An Ascent of Long's Peak" by Mr. Sylvester C. Dunham; and "Personal Recollections of the Utes," by Mr. Ernest Ingersoll.

THE POPULAR SCIENCE MONTHLY for April has its usual list of sharp, crisp and interesting articles. This monthly is always original and entertaining, and well sustains the high reputation it has won among the best periodical literature of the day.

AMERICAN AGRICULTURIST. New York:
Orange Judd & Co.

This is an excellent family paper. It abounds in plain, reliable information both for in-door

and out-door work and comfort, and its table of contents presents such a variety of interesting topics that no one, either old or young, can fail to find something both pleasing and instructive.

THE TEACHER. Philadelphia: Eldredge & Bro.

Few papers that come to our table have such a neat and fresh appearance as this, which is devoted to the interests of education in its highest sense. Every one interested in educational topics ought to become acquainted with *The Teacher*.

The June number of the *Folio* is an excellent issue of this interesting journal. The musical selections are very pleasing, and the fresh, new items concerning the art of music, to which this monthly is devoted, makes it both entertaining and instructive. It is an excellent acquisition to the family periodicals.

THE NATIONAL TEMPERANCE ADVOCATE. New York City: 58 Reade St.

This excellent journal is the organ of the National Temperance Society and Publishing House, which was organized in 1866 for the special work of creating and circulating some temperance literature. Since that time the Society has published over eight hundred varieties of books, tracts, and pamphlets, upon every phase of the temperance question. A supplement which accompanies the June number of the *Advocate* contains the sixteenth annual report of the Society.

The Youth's Temperance Banner, which is published by the same Society, is the leading temperance paper for children and youth. Every family in the land ought to welcome these monthly journals to their homes.

JOURNAL D'HYGIENE: Paris, France.

This is a French journal, devoted to the exposition of sanitary subjects. It is a well edited paper, now in its sixth volume, and contains very many interesting items concerning the all-important subject of hygiene. It is always a welcome visitor to our table. We note that the editor often quotes from the columns of GOOD HEALTH, and we are pleased to return the compliment.

PHYSICIAN AND SURGEON: Ann Arbor, Mich.

This is one of the most valuable medical journals of the West, and well deserves the success which it has already won within the short time it has been published. Each number presents a large amount of original and instructive matter which ought to engage the interest of every physician. Its able editor, Prof. V. C. Vaughan, is one of the shining lights of the great University with which he is connected; and his versatile genius and untiring industry has undoubtedly contributed greatly to the success of this new enterprise in medical journalism.

Publishers' Page.

Dr. Honeywell still continues to meet with his usual success in introducing GOOD HEALTH, having obtained eighty annual subscribers to the journal last week in the thriving city of Galesburg, Ill. If we had one hundred equally active sanitary missionaries in the field, we should hope to convert the world to the principles of hygiene within twenty years and establish a real sanitary millennium.

The Sanitarium Battery advertised in this journal is a perfect little gem. It more than meets the expectations of those who purchase it. The managers of the Sanitarium have made arrangements for their manufacture, which will enable them to fill promptly the numerous orders which they are receiving from all parts of the United States.

The new food preparations advertised in this journal are all they are represented to be. There are some persons engaged in an Eastern city in the manufacture of prepared foods of various kinds, denominated "health foods," the chief virtue of which is their harmlessness. They are held at a high price, when they possess, in most cases, no superiority over ordinary grain preparations. We are making a thorough investigation of some of the productions of this firm, and shall in the next number give our readers the results in answer to many inquiries.

THE SANITARIUM WAS NEVER SO PROSPEROUS AS AT PRESENT. The arrival of thirty patients during last week attests its popularity and the wisdom of its managers in securing ample accommodations for all who may wish to come. Every known method of treatment of assured value in aiding the sick to recovery, is here employed with thoroughness and efficiency; and it is due to this fact, in part at least, that many who have spent years in a vain search for health, find it here even after they have spent months at other institutions without avail. The Sanitarium is not a pleasure resort, although it offers superior advantages to those who are seeking recreation and rest. Those who come here for aid are chiefly persons who are very ill, a large proportion having nearly abandoned all hope of ever being well. The fact that nearly all, even of these unpromising cases, are restored to comfortable health, speaks louder for the merits of the institution than any amount of lauding or advertising could do.

The next number will contain an important article on the care of infants, including the important subject of infant feeding during the summer months. An article will also soon appear on the subject of summer diseases.

Messrs. Segner & Condit are still meeting with the same remarkable success which has attended their efforts in the introduction of "Plain Facts for Old and Young," from the start. They are employing a large number of agents, and pay good commissions to experienced men. Their address is Burlington, Iowa.

The fame of the Sanitarium Bakery products has reached beyond the limits of our own country. Two immense casks of assorted crackers were recently shipped to Belfast, Ireland, being consigned to the Food Reform Store recently opened in that city under the auspices of the Belfast Vegetarian Association. We had the pleasure of making the acquaintance of Mr. Strain, one of the most active members of the Association, a year or two ago, while he was on a flying visit to this country. We admire much the energetic efforts being made by Mr. Strain and his associates, and wish them great success in their efforts.

If our crackers are liked by the inhabitants of the Emerald Isle as well as by Americans, we shall soon have to make a much larger consignment.

Prof. Bell's "Natural Method in English" is now just out, and is meeting with a warm reception from all who are acquainted with his success as a teacher in that most neglected branch of culture. It will soon find its way into the hands of all who are able to appreciate the difference between true and false methods of instruction.

"Better than Pearls" is all its name intimates, as a compilation of sacred music. We know of no collection of twice the size which contains so many choice hymns and tunes. It contains more music than any book of the size we ever saw, and the rare excellence of its contents, together with the great variety of subjects and their admirable arrangement, will give to it a popularity which will undoubtedly eclipse all the former efforts of its enterprising publisher. Prices: Muslin, 40 cts; boards, 50 cts; paper, 25 cts. J. E. White, publisher, Battle Creek, Mich.

We would invite the attention of our readers to the advertisement of Bicycles offered in this number by the Pope Manufacturing Co. The Bicycle is one of the most ingenious of modern devices for locomotion. It affords the rider all the advantages of horseback riding, is a much better form of exercise, and affords far greater pleasure. It also possesses the advantage of being inexpensive after the first investment, there being no cost for keeping, stable rent, etc. One can travel on a good road with a superior machine, such as made by the Pope Man'g Co., faster than a good horse, with no more effort than would be required in walking at an ordinary rate or speed. It requires but little practice to attain proficiency in bicycling, and one who has once mastered the art will prefer it to all other forms of exercise.

A POPULAR PREMIUM.

THE new version of the New Testament is a work which every one interested in Scripture subjects, and who is not, cannot afford to be without. The work represents the labor of many of the most eminent linguists for many years, and throws a flood of light on many scripture subjects heretofore obscure. It is really invaluable and indispensable. We have made arrangements with the publishers of this work which will enable us to offer it complete, well bound, with a year's subscription to GOOD HEALTH, for \$1.10. We expect to send out several thousands of this work, and have made arrangements ample to supply the demand.