

MARCH, 1889

GOOD



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GOOD HEALTH FOR 1889.

A Number of New and Talented Writers have been Engaged for 1889, among whom are

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Well known to the reading public as a leading contributor to the *Popular Science Monthly*, and other popular magazines. Dr. Oswald is one of the most talented of American writers, and his extensive travels and acute observations have given him a fund of material with which he cannot fail to interest many thousands of readers in a series of articles which he has agreed to contribute to the columns of GOOD HEALTH during 1889, under the general title, "*International Health Studies*." Dr. Oswald will also continue, in the early numbers of the year, his able and interesting series of papers on "*The Stimulant Delusion*."

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BATTLE CREEK, MICHIGAN.



A FAIR-FACED youth and maiden
Passed through the yellow wheat;
And their hands were clasped together,
And the flowers grew at their feet.
The old, fair story,
Set round in glory,
Wherever life is found;
For oh! 'tis love, 'tis love, they say,
That makes the world go round.



An old man and a wrinkled wife,
Amid the sweet spring weather;
"We've shared our sorrows and our joys,
God grant we die together."
The old, fair story,
Set round in glory,
Wherever life is found;
For oh! 'tis love, 'tis love, they say,
That makes the world go round.



BATTLE CREEK·MICHIGAN· MARCH, 1889.

THE STIMULANT DELUSION.—SIXTH PAPER.

BY FELIX L. OSWALD, M. D.,
author of "Physical Education," "Household Remedies," Etc.

Tea, Coffee, and Drastic Drugs.

THE law of the Koran interdicts painting and sculpture, probably to obviate the risk of idol worship; but a Vienna artist of my acquaintance told me that photographs are very popular in Constantinople, and that even the learned Muftis connive at their introduction, on the ground that their manufacture does not require the use of a brush, and that therefore they cannot be classed with the works of art excluded by the orthodox prohibition of portrait-painting.

With a similar elaboration of sophistry, some of our sanitary reformers refuse to class tea and coffee with the noxious stimulants, because their use, even in considerable quantities, does not produce intoxication in the grosser sense of the word. The same apology, however, might be urged in favor of tobacco and betel-nut poison, while in all essential respects the physiological effect of tea and coffee is unquestionably analogous to that of a toxic stimulant.

In the first place, no human being was ever affected with an innate fondness for the taste of a narcotic beverage. A liberal admixture of sugar and milk may disguise that taste; but serve a cup of strong, black coffee on the Turkish plan, and not one of fifty thousand children would sincerely prefer it to skim-milk, though in deference to the respected verdict of their parents, a few of them might attempt to sip it down as something good and warm, "for the stomach's sake," on a cold morning. Actual analysis has proved that the stimulating principle of both tea and coffee is an active poison; and where coffee is

stored in large quantities, the mere fume of that poison is enough to sicken the stoutest man. "Blubber-boiling must be a horrible nuisance?" I once asked an Amsterdam sailor who had made several trips to the highest latitudes of the Arctic whale-seas. "So it is," said he; "the smoke often gets thick enough to choke the last sixteen meals out of a fellow. But, Mynheer, I tell you there is something worse,—a dozen times worse, if you catch a full dose of it. I used to ship on a Java-man, and on our last trip, our coffee cargo got knocked out of balance in a squall, and I and a boy were sent down to straighten it out. That boy had to give it up in less than half an hour, and looked as pale as chalk when they carried him up, but I stuck it out till noon; but I'll be shot and harpooned if ever I was sicker in all my life. I felt as if all my insides was turned wrong-side up, and if any one had left me a choice to do that job over again, or swallow twelve rats, I'd 'a swallowed a baker's dozen of 'em, hide and all."

A few months ago, a correspondent of *Good Health* described the slovenly methods of the skin-diseased Chinese tea-pickers, and their horrible habit of scratching off their scabs, which thus are apt to get mixed with the tea-leaves; and Dr. Stenhouse, of Liverpool, once made a careful analysis of a sample-package of black tea, with the following result, quoted in the *Planter's Price-Current*: "The package contained some pure Congou tea-leaves, also siftings of Pekoe and inferior kinds, weighing together twenty-seven per cent of the whole. The remaining seventy-

three per cent were composed of the following substances: iron, plumbago, chalk, China-clay, sand, Prussian-blue, tumeric, indigo, starch, gypsum, catechu, gum, the leaves of the camelia, sarangua, *Chlorantes officinalis*, elm, oak, willow, poplar, elder, beech, hawthorn, and sloe."

But even without such admixtures, tea is clearly unfit for the purposes of a habitual beverage. Its unmistakable toxic effect is that of a narcotic poison, and it is mere sophistry to say that "a few cups of weak tea cannot possibly do a healthy person any harm." The decoction, of course, might be made weak enough to produce a minimum of narcotization; but as soon as that effect becomes at all appreciable, it is clearly and exclusively deleterious. Without their fashionable admixtures, neither tea nor coffee contain a particle of available nutriment, but can be proved to contain a variety of elements which, with or without any admixture, are sure to exert a baneful influence on the nervous system and the functions of the digestive organs. "Sick-headaches" have become enormously prevalent since the introduction of the tea-habit. In their chronic form, they constitute the national complaint of the Chinese empire, and in every large city of Christendom, they count their victims by tens of thousands. Like other stimulants, tea, in strong doses, temporarily relieves the symptoms of its own consequences. "My headaches would kill me if it was n't for an occasional cup of good, strong tea," Aunt Teapot assures you; "my head feels as if it were going to split wide open, but after tea, I always feel a little better." So does the dram-drinker, for a short time, after a large dose of his hell-broth; his blue-devils leave him for an hour or two, but only to return with a legion of colleagues. What else but a repetition of his poison-dose can (momentarily) save an opium-eater from the torture of symptoms absolutely due to the influence of that same poison? The fatuitous short-sightedness, nay, blindness, of the victim, can alone explain his inability to recognize the threat in that bargain with the powers of perdition. "Nothing but my morning bitters will relieve that feeling of weariness," argues the stimulant-slave, and continues his potations, though the experience of a thousand days, might have convinced him that the symptoms of distress are sure to return, as long as he returns to the fountain-head of his troubles.

"Strong tea relieves my headaches." Yes, but for how long? Is it possible to ignore the suggestiveness of the circumstance that only habitual tea-drinkers need that relief, and that, moreover, permanent relief can be obtained only by a total renunciation of the tea-habit?

No tea or coffee drinker can ever hope to enjoy the blessings of perfect digestion. Under the daily influence of the wretched narcotics, the stomach works in a languid, perfunctory way, like a laborer under the spell of an opiate. The entire process of digestion and assimilation becomes abnormally torpid, and the infatuation of prejudice could hardly go further than in the delusion of an eminent sanitarian, who recommends a cup of strong coffee after dinner, because it retards digestion, and thus "protracts the invigorating influence of nourishment." Gospel of our all-mother Nature! We might as well recommend the plan of stunning a sleeping child with a slung-shot, because a good whack on the head would postpone the hour of awakening, and thus tend to "protract the invigorating influence of slumber!"

The snappish petulance of the representative heathen-Chinee, finds its precise analogue in the morbid temper of our habitual tea-drinker,—the tea-habit temper,—involving the martyrdom of millions of children and servants, subjected to the caprices of the patient. "I venture the assertion," says honest Dr. Jennings,— "and without any fear, too, that future investigations and revelations will reverse the verdict,—that tea and coffee do more to alienate the natural and moral affections, pervert judgment, weaken the moral sense or force of moral obligations, and to disturb the peace and harmony of families, than alcohol does. I do not, of course, mean that in individual cases alcohol may not transcend tea and coffee in its mischievous effects, but in the aggregate of malign influences, exerted directly and indirectly, tea and coffee will not yield the palm to alcohol."

Chocolate, which many writers continue to class with the narcotic beverages, contains only a minimum of stimulating elements, and is used chiefly for the sake of its palatable admixtures, and therefore cannot begin to compete with the attractiveness of stronger stimulants. The popularity of tea and coffee, on the other hand, is founded mainly on the bottom-fallacy of the stimulant-habit,—the delusion which leads millions of our fellow-men to mistake a process of irritation for a process of invigoration.

That same fallacy is at the bottom of the drug-abuse. In spite of a partial reform, enforced by the grim logic of experience, a sad plurality of medical practitioners still stick to the idea that a condition of organic torpor—or a temporary, and often very timely, suspension of any organic function—can be improved by the paroxysm of a *poison-fever*. Under the influence of virulent drugs, the exhausted organism rallies its energies (however sorely needed for other purposes), and, for a time, works with feverish energy

to rid itself of a life-endangering poison, just as a weary man would start from a much-needed slumber, to shake off a shower of hot cinders. The usual plan of forcing "stimulating" drugs upon the stomach, initiates a rapid series of eliminative expedients, which *simulate* a process of vigorous digestion, and thus delude the patient with the hope that his torpid organism—his "sluggish liver," etc.—has really been aroused to a proper sense of its duty, and that the heedlessness of Nature has been effectively corrected by the intercession of Dr. Quackbitters.

For a day or two the specific answers its purpose, but outraged Nature is sure to get her revenge, and the ensuing reaction is more distressing and more incurable, by just as much as the virulent stimulant has

still further exhausted the small remaining reserve-store of vital energies. The general torpor of the organism becomes more grievous than before, and like the tea and coffee drinker, the drug-dupe then resorts to a stronger dose of the mischievous irritant, in the never-renounced hope of ultimately reaping a benefit destined to be limited to the emoluments of the drug-vender.

The mystery of that result is, however, becoming a rather open secret; and I venture the prediction that, within fifty years, drastic drugs, with the rarest exceptions, will be swept away by the current of that same stream of reform which has already drowned the chants of the exorcist and extinguished the fires of the witch-burner.

THE END.

HEALTH OBSERVATIONS AMONG AMERICAN ABORIGINES.

BY THE EDITOR.

A MATTER of great interest to the writer in his visit to the Yuma Indians of Arizona and New Mexico, was the study of the immediate effects of the adoption of the habits of civilization. At the time of our visit, but a few months had elapsed since the organization of a school in charge of Catholic Sisters. The progress of the institution was for a long time very slow, as the primitive savage has as great a prejudice against the adoption of civilized modes of life, as the most civilized inhabitant of one of our large cities would feel respecting the adoption of the rude customs of barbarism. One of the greatest obstacles which the Sisters had to encounter in their philanthropic work, was the fact that the health of those who entered their school and adopted civilized habits in regard to clothing and food, was almost invariably impaired by the change. At home, in their native state, as we have before said, the diet is purely vegetarian in character, consisting chiefly of mesquite beans, the seeds of various weeds, pumpkins, melons, and other vegetables. Food is never plentiful with them, and they are sometimes reduced to the verge of starvation.

We inquired of Sister Alphonse concerning the influence of civilization upon the health of the Indian boys and girls that attended the school. We were told that the adoption of clothing and civilized diet, which at the school table consisted chiefly of corned beef, coffee, white bread, corn-bread, and beans, was unfavorable in respect to health, and that this had been one of the greatest obstacles to the progress of their work. It was stated that almost all the Indian children became

troubled with indigestion, water-brash, and other troublesome symptoms, soon after entering the school.

When we asked to what the parents of the children attributed these symptoms, the reply was, "To the use of meat. The Indians say, 'We cannot eat meat; it is not good for us; it is not good for our children.'"

The children themselves, as we were told, did not at first take kindly to the use of meat, and even after they had been in the school for several months, nothing afforded them so much delight as the Friday afternoon half-holiday, when they were allowed to make *tortillas* for themselves, baking the thin cakes upon the hot covers of the kitchen stove.

It certainly seemed a pity that those who had charge of the education and development of these children of nature, should begin by cultivating an unhealthful taste. Some years ago we met a dog-trainer who had on exhibition a half score of educated canines, whose performances exhibited a remarkable degree of intelligence. On questioning concerning the dietary he found best suited to his animals, we found that they were fed upon a strictly non-flesh diet, their only food being oatmeal, or corn-meal and milk. When allowed to eat meat, they became irritable, quarrelsome, and intractable. Would not common sense, then, lead to the conclusion that these primitive people would be far better if allowed to retain the simple tastes which their isolated position has thus far protected from the depraving influences of civilization? Would not the Indian boy and girl be as much more docile and tractable under the severe ordeal to which they are subjected in their



INDIAN BURIAL GROUND.

first attempts to acquire the language and manners of civilization, as are the members of the brute creation?

Until twelve or fourteen years of age, the Yuma Indian wears no clothing whatever. When brought to the school, loose dresses are put upon the girls, jackets and pantaloons upon the boys, and all are made to wear shoes and stockings.

We inquired in what way the wearing of clothing seemed to effect the health of the children, and received the following reply:—

“As soon as they begin to wear clothes, they become subject to colds, catarrh, coughs, and sore throats, from which they were perfectly free before. They have been accustomed to plunging into the water and swimming about like ducks all their lives, from the time they are very young, and at all seasons of the year. They seem to be so hardy that no exposure of wind or water does them any harm. But after they begin to wear clothing, they become sensitive, and liable to take cold. If a boy has become accustomed to wearing shoes, and gets his feet wet, he takes cold; whereas before he became accustomed

to wearing clothing, he might get wet a half dozen times a day, drying himself in the sun, without doing any harm.”

This fact, the Sisters seemed quite at a loss to understand, although the reason to us was plain. In their native state, their skins are so active, and the external circulation so vigorous, that they suffer no more inconvenience from exposure to wind, rain, etc., than do the wild horses and cattle of the prairies. And why should the human animal be more subject to disease than the lower members of the same kingdom, when placed under the same circumstances? Upon adopting civilized clothing, the circulation of the Indian's skin is easily disturbed. It loses the power to care for itself, since artificial covering renders such care unnecessary. The consequence is, the same exposures, which were before unnoticed, become active causes of disease. We would not wish to be understood as esteeming the habits of savagery preferable to those of civilization, or as extolling the advantages of savage life. But our view of the matter is, that neither the savage nor the civilized

man is in a normal condition. The savage represents one extreme; the civilized man, the other. A normal state would be one which would present the advantages of both, while avoiding, on the one hand, the irregularities and exciting exposures of savage life, and on the other, the enervating and depraving practices of civilization. That man who will perfectly solve the problem thus involved, or so modify the present mode of civilized life as to eliminate its unnaturalness, will be recognized for all time as the greatest of benefactors to the race.

The climate of Arizona and New Mexico, the home of the Yuma, is, for the greater portion of the year

at least, the driest of any on the continent. As the result, the atmosphere possesses a high degree of purity. Germs require moisture for their development, and their absence in this region is evidenced by the fact that animal substances have little disposition to decay. Dead bodies left upon the surface, dry up like mummies. The accompanying cut illustrates an Indian burial ground, in which the bodies of the dead, encased in rude bark coffins, and elevated a short distance above the ground, upon stakes or trees, soon assume a condition very similar to that of the mummies found in Egypt and Central America.

(To be concluded.)

SHORT TALKS ABOUT THE BODY, AND HOW TO CARE FOR IT.

BY A DOCTOR.

No. 3.—Uses of the Food Elements.

As we have already learned, there are five food elements; namely, albumen, starch, fats, sugars, and salts. Let us now consider the useful purposes served in the body by each of these several elements:—

From the stand-point of nutrition, fats may be roughly divided into four classes; carbonaceous, nitrogenous, inorganic, and indigestible. The carbonaceous class comprises starch, fats, and sugars in their various forms. The nitrogenous class includes the various forms of albumen. In the inorganic class are included various salts, as the carbonates of lime, soda, potash, etc., chloride of sodium, and the other compounds found in the ashes derived from the combustion of food. The indigestible class comprises such woody and horny substances as are found in the food, and are not soluble in the digestive fluids.

Uses of Carbonaceous Elements.—These elements comprise the greatest bulk of the food. They serve three purposes in the body: (1.) To furnish material for the production of heat; (2.) To create, by their oxidization, force as well as heat, as illustrated in muscular effort, which always involves the consumption of carbonaceous material; (3.) To replenish the adipose, or fatty, tissues of the body.

The production of heat is one of the most remarkable phenomena in the body. A stone or a jug of water of the same weight as an average man, if heated to the temperature of the body,—about 100 degrees,—would retain that temperature but a short time. The rapid dispersion of heat to neighboring objects, would, in the course of a few hours, lower the temperature to that of the surrounding atmosphere. Not so with the body. Whether exposed to a scorch-

ing sun in the tropics, or to a temperature at which mercury freezes within the arctic circle, the temperature of the body remains the same, so long as health is maintained and the proper amount of food supplied. This is due to the constant consumption of food, particularly of the carbonaceous elements, within the body. A pound of starch, sugar, or fat, consumed within the body, is oxidized the same as if it had been burned, and produces precisely the same amount of heat as if it had been oxidized by the process commonly known as combustion. The changes which these elements undergo in the human system, are essentially those of a slow combustion, just as the decay of the fallen tree in the forest is really a process of burning, in which exactly the same amount of heat is produced by the gradual and total decay of the tree, as if it had been burned in a forest fire, or consumed in a furnace. The difference is only in the intensity of the burning process.

Of the several carbonaceous elements, the fats produce the most heat for a given weight; that is, more heat will be developed from a pound of fat than from a pound of starch or sugar. This apparent advantage, however, is more than counter-balanced by the fact that the fats are much more difficult of digestion than are the starches and sugars, except in the form of cream, or in the shape of such fats as are contained in nuts, and in grains and seeds rich in oils, such as corn, oats, peas, beans, and lentils. All fats are difficult of digestion, and if relied upon to furnish the necessary amount of carbonaceous material to the body, are productive of mischief in overtaxing the digestive organs, occasioning a clot, and con-

gested condition of the liver. Nature, in her wise arrangements, clearly indicates that starch and sugar are naturally intended to be the chief sources of carbonaceous food; for (1.) The great abundance in which these food elements are found in all vegetable foods,—which are generally admitted to be the natural and primitive diet of man,—with the comparative meagerness of the supply of oleaginous elements, clearly indicates that the latter class of food elements are not intended to be the chief supply of carbonaceous material; (2.) The abundant supply of starch, grains, and saccharine fruits which nature furnishes for us just at the beginning of the cold season of the year, is an illustration of the wonderful adaptation of means to ends, which so constantly appears in the natural world.

It must not be supposed, however, that fats are an unnecessary food element. Experience shows that a small amount of oleaginous material is a necessary ingredient of the food, and that it not only meets the natural demand for carbonaceous material, but aids in the digestion of other food elements.

There is, fortunately, a little room to doubt whether the sugar supplied by nature in sweet fruits and saccharine juices of certain vegetables, is precisely the same as that with which we are familiar in the form of cane-sugar, honey, etc. It is a fact well known to physicians, that persons suffering from some forms of indigestion are often able to digest sweet fruits, although the same amount of saccharine matter, taken in the form of cane-sugar, will produce serious disturbance of the digestive process. As force-producing agents, carbonaceous elements are of course of no value, except when taken in connection with other elements, since they do not supply the waste of tissue occasioned by muscular or other forms of work, except so far as relates to the carbonaceous elements of the tissues.

Uses of the Nitrogenous Elements.—By the term *albumen*, we will understand to be designated not only albumen as represented in the white of an egg, but all allied substances, as gluten, caseine, and fibrine. These substances are so closely allied in their chemical constituents and their physiological properties, that for practical purposes, they may be considered identical. This is essentially true, whether they are derived from the animal or from the vegetable kingdom. The chemist groups the different forms of albumen under the general head of nitrogenous substances, because they all contain nitrogen as a characteristic element. When received into the body, albumen is dissolved by the digestive process, of which we shall learn at a future time. It is taken up by the blood, and circu-

lated to the tissues. In the body, there are various tissues allied to albumen in their composition. These are the brain nerves, muscle glands, and, in fact, all the highly vitalized active tissues of the body. These tissues are constantly wearing out through their activity, and one of the first purposes served by albumen is to supply material to repair this waste. It is a matter of interest that the same element which is the most active and highly vitalized in the vegetable kingdom, likewise takes the same position in the vital economy of an animal by which it has been eaten and digested.

Another purpose served by the albumen, is that of a vital stimulus. It blows the fires of the body, so to speak. It furnishes but a small amount of material for maintaining animal heat, force, etc., but it stimulates the processes by which heat and force are developed. It is on this account that eggs and flesh meat have come to be known as “heating foods.” They increase animal heat, but do not supply, except to a limited extent, the material needed for its production.

The amount of albumen which can be used in the body in twenty-four hours, is about three ounces, which constitutes about one seventh of the total quantity of solid food required. Any excess of albumen taken beyond the amount named, or more than three ounces, must be treated as so much waste matter, and is eliminated by the kidneys, in the form of urea or uric acid, often appearing in the urine as a whitish, pinkish, or brick-dust sediment.

Uses of the Inorganic Elements.—It is, perhaps, hardly proper to speak of the so-called mineral ingredients of the food as inorganic elements, since they are probably not really inorganic when taken in the form in which nature furnishes them in the food, but are partially organized. The various mineral inorganic compounds which are found in the ashes of a food which has been burned, are the result of chemical changes, and can be regarded as representing exactly what exists in the food in its natural state. With this understanding of what is meant by inorganic, we can see at once that the products of the chemist’s laboratory cannot be considered appropriate substitutes for these elements, which may be supposed to be located in the food, or acquired by the body in an unusual amount.

The chief uses of the inorganic elements, are to furnish such material to the bones as will give them solidity,—as the phosphates, carbonates of lime, etc. Phosphates also constitute an important constituent of brain and nerve tissue, and other of the highly vitalized tissues of the body. When these substances are supplied by the food in insufficient quantity, the

bones become soft, the teeth fall into decay, and the whole body languishes. It is probable, however, that the body suffers more frequently from the inability to digest and assimilate these elements, than from their insufficient supply.

Uses of the Indigestible Elements.—The human digestive organs are constructed with reference to the digestion of food having considerable bulk; man belonging, from the stand-point of the zoölogist, to the class of frugiferous animals typically represented in the monkey, man's nearest relative in the animal kingdom. A diet composed wholly of digestive and nutritive elements, is too concentrative for a healthy adult human being, and usually results more or less speedily in the contraction of disease. It is a practical regard for this principle, which leads the farmer to feed his horses and cattle straw or coarse hay, with corn or other grains, experience showing him that this is necessary to maintain these animals in health. A curious incident occurred some years ago, illustrating the necessity for the observance of this principle.

A ship carrying a cargo of horses and mules to the West Indies, was overtaken by a gale, which swept overboard the entire supply of hay. The only food left for the animals was corn. In a short time, the horses were found to be dying off rapidly, in consequence of their concentrated diet, while the mules remained in health. An investigation showed that the latter animals were obtaining the necessary supply of coarse material by gnawing the boards of their stalls. The captain, taking the hint from this circumstance, supplied the animals with wood shavings, which most of them ate with avidity, with their daily rations of corn, and thrived thereon. The few that refused this wholesome addition to their dietary, paid the penalty for their fastidiousness. Hence, the bran of wheat, and the woody texture of many vegetables, and other indigestible elements found in various vegetable foods, serve a useful purpose in giving the necessary bulk to the food.

In our next, we shall study that most interesting physiological question, How our Food is Digested.

(To be continued.)

GAVE THE MEDICINE TO THE DOG.

HALF a century ago, it was the fashion of many physicians to subject patients suffering from the most trivial ailments, to a vigorous course of purging, and sometimes to bleeding, emetics, and other medicines, which oftentimes proved worse than the disease. About this time it happened that cholera was rife in Ireland, and it seemed to defy the skill of the faculty to such a degree that the panic-stricken people believed the doctors poisoned the patients; and in some instances they threatened to pull down the hospitals. During the while, a physician was applied to very urgently by the brother of a cholera patient, to make a visit at the dead hour of the night, and at considerable distance from his residence. Being unable to attend, he carefully prepared and gave the messenger medicines suited to the emergency, and dispatched him, with the injunction to inform him if his brother

was not relieved by morning, and he would call.

A few days afterward, he met the brother-messenger in the street, and the following conversation ensued:—

“Well, John, how is Pat?”

“Long life to your honor, he's foinely!”

“I'm very glad to hear it, John; it's an ugly complaint, that cholera.”

“Troth, and your honor, it is; and poor Pat had a hard time of it. But praised be the Lord, he's well again; and plase your honor, the dog's dead.”

“What dog?”

“O, your honor, it's for sartain the dog's dead.”

“What dog are you talking about, my good fellow?”

“Plase your honor, I gave the dog the medicines you sent, and he's dead; but Pat's foinely, your honor.”

A MANIFEST ADVANTAGE. — *Frenchman.* — “You should to Paree go, eef only to see zee beautiful picture of New York harbor, painted by Missear Bartholdi. Eet is one grond compilationg.”

Omaha Man. — “I have seen New York harbor itself.”

F. — “Oui, but in zee picture you get zee grond view widout zee smell.” — *Omaha World.*

A HOSPITAL doctor, having prescribed for a patient struck down by fever, placed a thermometer under his arm, to gauge his temperature accurately. On returning a few hours later, the physician inquired, “Well, how are you getting on?” receiving the unexpected reply, “O doctor, the drops have not done me any good, but the glass tube has given me immense relief!”

DRESS

CLOTHING FOR THE LITTLE ONES.

THE accompanying cuts illustrate a good way in which under-garments for children may be made, and which will meet the requirements of healthful clothing. Fig. 1, the first garment worn, is made of grey or white Jersey flannel, or of light-weight eider-down cloth, cut by some approved pattern so as to be complete in one garment. The Jenness Miller system of patterns offers an excellent one for this purpose. White webbing, sewed on securely and closely,



NO. 1.—FRONT.



NO. 1.—BACK.

and button-hole stitched with silk floss on the lower edge, gives the finish to leg and sleeve, and makes them fit tightly to ankle and wrist. Other material may be used for the garment, if preferred, but in several years' experience we have found nothing possessing the same qualification as to warmth, that, with proper washing, shrinks less, and retains its softness longer than eider-down cloth of light weight. If it be objected that the material mentioned is too thick and heavy, we would say, Let the little ones wear less

other clothing, and have the garment which affords the first protection for the body, one which will adequately provide proper warmth.

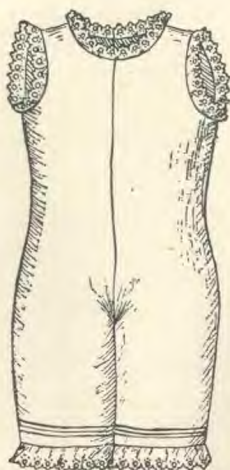
Fig. 2 represents a garment made of bleached muslin, to be worn just outside the flannel suit. A short tab, with a button, securely attached to the inside of the garment, at the waist line, just in front of each side opening, affords provision for the attachment of the hose-supporter.

Clad in such a suit of flannel, with long hose of wool, a dainty muslin suit outside, a skirt of light-weight material, with sleeveless waist attached, and a dress of wool, with waist lined with cotton and sleeves with flannel, to equal the warmth afforded the other portions of the trunk by the skirt and muslin suit, without the necessity of so many sleeves, which, in the dressing of children are often very troublesome, and with sensible shoes, and leggings carefully drawn up and fastened by the supporter which holds the stocking, or by a second pair attached to a second button placed on the tab of the under-suit for this purpose, the little one is ready to defy Jack Frost in his severest mood. For girls of older growth, suitable combination suits of flannel are usually to be found at any retail establishment where ladies' furnishing goods are kept. If such are considered too expensive, a vest and drawers of suitable size may be joined together by a small seam on the right side. A tape stitched over the seam makes it more firm, and gives it a neater appearance.

For the muslin garment to be worn just outside the flannel combination suit, we know of no design preferable to that represented in Fig. 3. Buttons for attaching the hose-supporter may be arranged on the inside of the suit, in the same manner as described for suit No. 2. The other garments need not exceed in number those mentioned for smaller children,

and should be quite as simply made; the one skirt necessary being provided with a waist, which is far more comfortable and in every way preferable to any form of shoulder-straps. No other waist is needed,

The open space about the throat between the hood and cloak should always be protected, but it should not be overheated by an excess of wrappings. Whatever degree of warmth is required for comfort for



NO. 2.—FRONT.



NO. 2.—BACK.

and no form of corset or corset-waist should be worn by a growing girl.

When children are taken for a walk or allowed to play out of doors, provide equal protection for all parts of the body. Without doubt many a serious illness has resulted from muffling the little one's throat in furs, while allowing its limbs to go with no more covering than was customarily worn in-doors.



NO. 3.—FRONT.



NO. 3.—BACK.

any portion of the body, is necessary for other parts as well, and children's out-door garments should be such as will secure an equal additional increase of warmth to the entire body, proportionate to the severity of the weather.

NECESSITY FOR UNRESTRAINED ACTION.—A muscle tied up is rendered as helpless as though it were paralyzed. When a muscle acts, it does so by swelling out in thickness, while contracting in length. From this it will be evident that if a tight band is put around a muscle in such a manner as to prevent its expansion or increase in thickness, it cannot possibly act. Hence, a fundamental requisite of healthful muscular action is entire freedom from restraint. Unrestrained action is indispensable to complete action and perfect development. When a broken arm is done up in a splint for a few weeks, upon removing the bandage it is usually found that the arm has shrunk in size; the muscles have wasted, partly in consequence of pressure, and partly on account of the enforced inaction of the muscles. The very same thing happens wherever pressure is brought to bear upon the muscular tissues. A ring worn upon a finger causes atrophy, or wasting of the tissues beneath it. By placing an elastic band around soft tissues they may be absorbed altogether, in consequence of the pressure. This ac-

tion has been taken advantage of for the removal of tumors in certain parts of the body.

The elastic bands worn about the leg to keep the stocking in place, and sometimes used upon the arms to hold the sleeves up, are more harmful than is usually imagined. The long stockings worn by females bring the elastic just above the knee, where the large blood-vessels of the limb come near the surface and are in position to be compressed against the thigh-bone in such a way as to impede the circulation. It is not to be wondered at that under these circumstances, in addition to the evil of thin stockings and thin, tight shoes, there should seem to be a necessity for artificial calves, which we are informed on creditable authority have actually been employed.

Whether garters are elastic or inelastic, the effect is essentially the same. They interfere with the circulation of the blood in the lower limbs, and often produce varicose veins. Cold feet and headache are the ordinary results of their use. School-girls suffer greatly from their injurious effects.

THE HAPPY FIRESIDE

DEVOTED TO TEMPERANCE MENTAL AND MORAL CULTURE
HOME CULTURE NATURAL HISTORY AND
OTHER INTERESTING TOPICS
CONDUCTED BY MRS. E. E. KELLOGG A.M.

A DEAR EXPERIENCE.

BY S. ISADORE MINER.

"WHERE'S Bessie?" were Gertrude Parkinson's first words, as the hack landed her at the door, and almost into her aunt's arms, the morning of their homecoming. She gave Miss Helena a swift though hearty hug, and both Mr. Parkinson and his sister smiled to see her skip up-stairs to the nursery, as if there was not a moment to lose. The smiles had not yet subsided when she came back to call from the top stair, "Whose baby have you got here? and where is Bessie?"

"I told you Bessie had grown so you wouldn't know her," answered Mr. Parkinson, gleefully rubbing his hands. "I guess you'll believe now that it was high time you came home."

"Oh! but no, papa, this baby isn't Bessie, I know. Come see for yourself. I'm sure you'll say it is n't."

Mr. Parkinson and his sister again exchanged smiles at the evident deception a few weeks' absence had wrought for the elder sister's eyes, and together they joined Gertrude, who had already rushed back to the nursery, to discover if she could trace some resemblance to her little sister in the pretty baby in the wicker cradle, or else find that there were two of them, and Bessie hidden away to take her unawares.

"I'm surer than ever that it is n't, papa," she said as he entered; for you know our baby knew me, and could almost say my name. It always said 'Ger, Ger,' when it saw me, and this one does n't.

"Every baby says 'Ger, Ger,'" laughed Aunt Helena. "I never knew they always meant Gertrude before. I'm glad I've found out, for I'm 'fraid I have n't given the little dears all the credit they deserve. But what is it, John?"

Mr. Parkinson was the very picture of puzzled dismay. "I can't understand it. I'm glad you never play practical jokes, Helena, for I must say this looks like one," and he grew rather pale for a dealer in

coal. By this time he had opened the child's dress at the throat, and bared her shoulder.

"No, this is n't Bessie," he said decidedly. She had three tiny moles set in a row on her left shoulder, for her mother often spoke of it when she dressed her, and the old nurse always said 'Three moles in a row for good luck.'

He had scarcely finished his sentence, when Miss Helena, throwing up her hands, tragically, exclaimed, "John, I see it all! What a fool I have been!" and she rushed for her room, followed by her brother, with the disowned infant perched in the crook of his arm, and Gertrude, who was wavering between excited curiosity and tears. Miss Parkinson met them half way with a great bundle of papers, which she was shaking in a most aggressive and demented manner.

"Here are the proofs of my idiocy! Here are the documents that will brand me as a murderer if that poor mother is not yet living! I told you, John Parkinson, I was n't fit to be trusted with a baby. I told you I did n't know one baby from another. But I never thought to see this day! Oh! for pity's sake, do let us go!" That poor mother, that poor little mother!" and Miss Helena wrung her hands, and was for starting out-doors, bare-headed and frantic, to go she knew not where.

Mr. Parkinson, level-headed business man, suggested that if he knew something more of the circumstances, it might facilitate matters, and finally calmed his sister down to a state somewhat resembling composure, till he had learned some of the particulars, and read enough to enable him to go about the exchanging of the children without loss of time.

Armed with the name and address given, the procession started, and was a source of amusement to all it encountered. Miss Helena, totally oblivious to everything irrelevant to her mission, led the van

with the baby, whom she would in nowise relinquish. "This child shall not go from my arms till I give it to its mother, and all New York sha n't stop me;" so Kate must perforce bring up the rear with the perambulator, much to her dismay; for she scented the fray from afar.

Mr. Parkinson's and Gertrude's willing feet could scarcely keep pace with their leader's, who stalked before, with grim determination, self-abasement, and anxiety alternately depicted on her countenance. Could they have been a little nearer, they might have heard her say as she mounted the steps, "No crape on the door! Helena Parkinson, you contemptible creature, you can't half appreciate your mercies!"

But that meeting! What pen could describe it? We can but draw the curtain to hide the smiles, the tears, the fond caresses and endearments lavished on the lost but found; the grateful words, which despite Miss Parkinson's protestations and self-reproaches, was but her due for her unselfish care, and which finally succeeded in restoring her usual serenity of countenance; the interest, though punctuated with more than one exclamation point, that attended the account finally elicited from Kate, tearful and haughty by turns.

But the subject proved such an inexhaustible one, and the strangely brought about acquaintance so

pleasing, that Amy and Miss Helena were only separated with the understanding, mutually satisfactory, that not many hours would elapse ere the rather unceremonious call was returned.

And the perambulator went home as empty as it came; for Miss Helena insisted on carrying the real Bessie all the way.

We will lift the curtain, however, to reveal a glimpse of Amy and Miss Parkinson, whom Dottie calls "Auntie" too, seated, as they often are, in one of the nurseries, with the "almost twinsies," the best of friends, enjoying their cunning plays. Here babies' praises are mostly sung, in animated duet, and Mrs. Norton is the attentive and appreciative audience. She often gives them very good advice, and many new ideas, when present at their conclaves in the interest of baby care and culture, and thinks it perfectly proper that both ladies discharged their nurse-girls, deciding to take care of their babies themselves.

In fact, she finds that most all *mothers* do, whether rich or poor, high or low.

"But whether they did or did n't," Miss Helena says, "I'd rather take care of Bessie all my life than be bothered with looking for those three moles every time the nurse brought her back from an airing, and I never should feel sure without!"

THE END.

COUNT THE MERCIES.

COUNT the mercies! count the mercies!
 Number all the gifts of love;
 Keep a daily faithful record
 Of the comforts from above.
 Look at all the lovely green spots
 In life's dreary desert way;
 Think how many cooling fountains
 Cheer our fainting heart each day.
 Count the mercies! count the mercies!
 See them strewn along the way!

Count the mercies, though the trials
 Seem to number more each day;
 Count the trials, too, as mercies,—
 Add them to the grand array;
 Trials are God's richest blessings,

Sent to prompt our upward flight,
 As the eagles' nest, all broken,
 Makes them fly to loftier heights.
 Count them mercies, count them mercies,
 That bring heaven within our sight.

Let us number all our jewels,
 Let us estimate their worth;
 Let us thank the gracious Giver,
 Strewing blessings o'er the earth.
 Let our hearts o'erflow with gladness,
 Let us tell the wonders o'er,
 Till our multiplying treasures
 Seem a countless, boundless store.
 Then let praises, grateful praises,
 Be our language evermore.

THE more a man follows nature, and is obedient to her laws, the longer he will live; the farther he deviates from these, the shorter will be his existence.—*Huffland.*

It is astonishing how soon the whole conscience begins to unravel if a single stitch drops; one single sin indulged in makes a hole you could put your head through.—*Charles Baxton.*

PEASANTS OF THE ROMAN CAMPAGNA.

"THE tints and stains others call dirt," says an admirer of ancient Rome, "I should term color; for neatness is always at war with the picturesque." Everything created by the hand of man first obtains grace and character from the touch of nature, and nothing is more prosaic than modernity. Imagine all the blackened, crumbling walls of Rome, with their thousand gray and yellow arabesques, broken tiles and masonry, vines and grasses, flowers growing above, below, and in every crevice, scraped smooth and whitened! What a gain to the cause of neatness, but what a loss to the artist and lover of beauty! Replace the gray, weather-beaten tiles on the roofs of Rome, covered with moss and lichens, by the cold neat slates of New York or the zinc of Paris, what would be gained?

Much would be won by the 250,000 citizens, though three hundred artists might suffer a heavy loss. It all sounds very romantic and poetical, but the second half of the nineteenth century will tolerate no more romance about moss and lichens, since it is both inconvenient and unhealthful. Nevertheless, we will have them in Rome, for there are some quarters into which the atmosphere of modern times has not yet penetrated, where we can scarcely be sure whether we are in Rome or some wretched little hamlet in the Volscian or Sabine mountains.

We need not yet accompany the artist on tiresome and expensive wanderings to these hills, in order, after months of labor, to bring back a portfolio filled with old house doors, winding stair-cases, dilapidated windows, gates hanging by a broken hinge, and other sketches bearing the stamp of antiquity. These and many others to boot we find in the wretched quarters of Rome, where the foot stumbles on the rough pavement, and the eye turns with loathing from filthy linen and rags dangling from open windows, or wanders over the cave-like abodes of poverty, the holes and corners where the people get their food and drink. All this is doubtless quite as picturesque as the dirty, dilapidated street-corners of Subiaco and Olevano. Yet these quarters can be rebuilt, the air and light can make a royal entry here, and Rome, nevertheless, remain beautiful, powerful, splendid, and picturesque.

But the figures — the richly costumed women, the men dashing on bony steeds and waving their lances like the followers of Romulus, the wild-looking riders of Campagna, the Pifferari, the unbridled steeds of the carnival — what will become of these? Doubtless some changes will occur. If Rome is reno-

vated, swept and whitewashed, these characters must undergo a little washing, combing, and remodeling of attire, and the ancient customs and costumes lost thereby cannot be preserved. It is the duty of the artists to forever retain these types for our delight, as men of letters gather the folk songs and tales ere they are smothered by modern newspaper literature.

When we see the herdsman on the Campagna driving his cattle across the brown plains, we might imagine ourselves back in the time of Evander, when the wild nomads roamed over the land. Their faces are brown and hard as leather; their features never transformed by a smile. Few of them know love, for this flower of life will not thrive here. They do not laugh, they do not even sing, and in this respect resemble the silent, songless region in which they live. They do not talk, perhaps they do not even think; at any rate their range of ideas must be an extremely limited one. Yet it is a splendid sight to behold these people, accustomed to riding from their earliest childhood, sitting, frequently without a saddle, on a black goat-skin, usually without stirrups, their limbs protected to the thighs by stout leather trousers, their guns slung over their shoulders, their *pungolos* clenched in their hands, guiding their steeds by a halter across the moor, and dashing into a troop of grazing horses or driving the stubborn white oxen.

More charming pictures, scenes of peace and repose, are often afforded by the shepherds who wander over the sunny plains. They are a welcome feature of the landscape, and delight the eye in the most varied situations. On the *Via Appia*, a brown-skinned boy stands high on a tomb heaped with ruins among the *lentiscus* branches, cuts himself a pipe, and draws from it a few simple notes, which he repeats with melancholy monotony all day long. The sheep lie in peaceful groups along the marble ruins, or graze over the quiet plain where the scarlet poppy blooms and the lark soars.

The other inhabitants of the Campagna are not natives; nearly all of them, urged by the poverty prevailing in their barren mountains, come in throngs, in spring to sow, in summer to reap. Then we behold a melancholy army marching silently from Umbria, from the distant Abruzzi and the Sabine Hills through the deadly plains. All are thin and emaciated, with hard, toil-worn hands, clad in wretched rags, the uniform of poverty for ages. They carry on their shoulders a heavy mattock, and under the oversight of a rude, pitiless, so-called *Caporale*, turn up a thin layer

of the soil, scatter seeds amid the clods with the utmost haste, spend the time during which it grows and ripens in the vineyards, and return, when malaria broods like a leaden weight over the fields, to garner a scanty crop, on whose profits some rich, idle Roman prince, duke, or land-owner is to fatten.

And their dwellings! Aye, happy are those who have a shelter in the damp, low tufa caves, whose walls are blackened by the smoke of the ever-burning fire. Here stand the rudely-made bedsteads covered with skins, fac-similes of the one offered by the swine-herd Eumæus to Ulysses. There are none of the ordinary household utensils — nothing save guns, agricultural tools, milk-pails, and the joy-giving bag-pipes. Others encamp in light huts built of rushes, but the majority spend their nights under the open sky.

Maize and millet, which grow almost spontaneously in the lowlands of the hill-country, where a little moisture lingers, form the principal food of the Campagna peasantry. They also have a sour, disagreeable wine, a rancid oil pressed from olives gathered at the foot of the neighboring mountains, and a rank, dry cheese.

Stolid figures are the peasants who live in the huts in the most remote suburbs of Rome, or the little hamlets on the Campagna. We see them every evening returning home in the same stereotyped way, — the husband, his back bowed wearily, perched high on the laden mule, the wife with a cradle or bundle of herbs on her head, spinning as she walks, — a poetic spectacle, full of bare, cruel prose.

But there is poetry in the bag-pipes, the cornamusa of these Abruzzi people, — poetry in the zampogna. What care they for violin or piano concerts? The cornamusa and zampogna make their hearts rejoice, and animate their weary feet for a rustic dance. The Madonna and the Christmas bambino are not greeted with flutes and violins, harps and trumpets, but with pipes, as the shepherds greeted them on the holy eve eighteen centuries ago.

The mountaineers have a short rest, but they earn so little in summer, and the winters are so long, that they are obliged to set forth in search of new gains. A few days before the 29th of November, at the beginning of the Novena, the nine-day festival



PEASANTS OF THE CAMPAGNA
RETURNING HOME.

of the Immacolata, they descend from their mountains, and after walking several days, reach the city. Wrapped in blackish-brown cloaks, with their hats pulled low over their brows, and their bag-pipes held under their left arm, they glide past the pedestrian, revealed by the light of the street lamps, on rainy evenings. It is a joyous event to the children, who eagerly announce at home that they have seen the men from the Abruzzi. Some fine morning we are aroused from slumber by strange, long-drawn, piercing, never-to-be-forgotten notes. We listen; a peculiar melody echoes in our ears, a melody which, if judged by the laws of the music with which we are familiar, would scarcely stand the test; yet we confess that their music has often moved us deeply in the stillness of the early morning shortly before Christmas, and this is the experience of every foreigner, to whom for years they have been the heralds of the sacred festival. — *Adapted from the German, by F. M. Percival.*

POOR WHITES OF THE SOUTH, AND HOW THEY LIVE.

BY THOMAS H. GIBBS.

It is often remarked that one half of the world does not know how the other half lives. We think this must be true, in a measure, in this fair land of ours, or we would see more of our health and temperance workers seeking fields of labor among the remote rural districts of some of our Southern States. When we read or listen to lectures on hygienic living, teaching our moral obligations to our stomachs, we almost lose our compunctions for our supposed past transgressions as we see what some of our fellow-men can pass through, and still exist. However, what the human stomach ought to do, and what it can do at great expense, are two quite distinct considerations.

The poor of the South, known in slavery times as "white trash," lead at best a hap-hazard existence; but as they have never known a better, they are as perfectly contented a class of people as we ever met. The house of the average settler is built of pine logs, and contains one or two rooms. A few feet back, stands a little cook shed or kitchen. A chimney made of sticks and mud decorates one end of the domicile. The majority do their cooking on these primitive fire-places, with the old-fashioned Dutch oven and skillets. The outside of the logs often becomes quite pitchy, while the crevices afford a fine habitation for the ever-present little nocturnal marauders.

But the inconveniences of their homes and methods count as nothing in comparison to the kind and quality of the food that is thus prepared. And even Nature seems to have dealt hardly with them; for the drinking-water, especially in the lowlands, is very poor. It is frequently obtained at a depth of only a few feet, necessarily receiving considerable surface drainage, and is very objectionable to an unaccustomed palate, but is always "the best water in the settlement" to the habitual user.

The principal articles of diet are corn-bread and pork. The bread is usually made of Indian meal and water, and is good *solid* material. The Southerner often boastingly remarks that the Northern people do not know how to make corn-bread. We were always ready to admit it, but never regarded it as a calamity.

If anything in the shape of vegetable is cooked, it is always so completely saturated with pork fat that the line of distinction is lost between clear pork and that which has been sodden with it for hours.

Coffee, as black and strong as the parched berry can make it, added to the above, completes the *menu* from one year's end to another,

Mention should also be made of the curse of this people—the tobacco-vice. Neighborhoods differ in their choice of the forms of the habit. The inhabitants of one will be largely addicted to smoking; of another, to chewing; and of still another, to snuff-rubbing. Whatever form is adopted, the others are generally condemned. We have seen families, however, in which all three forms were used, and that to great excess,—father, mother, and children smoking, chewing, and rubbing snuff. The sallow complexions and feeble forms of such, are strong evidence of its baleful effects.

Tobacco-using has become a very part of their personal and social existence. The young man when calling to escort his "girl" to "meeting," is handed, along with her hymn-book, a little jar of snuff, which he gallantly carries to the place of worship, for the fair devotee. Frequently, during an intermission of divine services, little groups may be seen enjoying "a social dip" together. For this purpose they use a little stick brush, and dip from the same bottle. I have known ministers to administer baptism to candidates with snuff-brushes protruding from their mouths. We have sometimes thought a treatment not too severe, would be to hold them under the water until they relinquished their idol.

One would suppose the medical fraternity would raise a voice of warning on some of these points; but they do not. On the contrary, they often advise the use of tobacco, and the use of an abundance of fat pork, also. The average rural practitioner is fully twenty-five years behind the times. Quinine and calomel are his catholicons. In some places, leeching and bleeding are still regarded as efficient remedies.

There are two very significant facts that are observable in these sections. First, almost the entire absence in some localities of old people; and second, the large number of children taken away by Providence (?) In one neighborhood, we heard of a family of six adult children, and learned that it was commented upon for miles around. We visited the father of this family, and found that a good supply of fruit-trees grew on his little farm. Strange to say, many of the people regard fruit as unhealthful, and will make little or no use of it when it grows indigenous around them. The present tide of immigration from the North and West, will do much to improve these sections and their inhabitants.

TEMPERANCE NOTES.

PROHIBITION reigns supreme throughout the 2,500,000 square miles of Canada's Northern Territories.

THE use of intoxicating drinks in any of the class organizations of the students, has recently been strictly forbidden by the faculty of Yale College.

THE municipal authorities of Sacramento, Cal., have forbidden the smoking of cigarettes within the city limits, by any person under the age of seventeen years.

Two ounces of brandy increases the beating of the heart 6,000 times in the twenty-four hours; four ounces, 12,000 times; six ounces, between 18,000 and 19,000 times; eight ounces, nearly 24,000 times. The heart of an adult man beats 100,000 times in the twenty-four hours, and the work which many give the heart to perform, is over 24,000 beats in addition—a strength equivalent to lifting one hundred and fifteen tons one foot high. Even the moderate drinker, with his two ounces a day, wastes a strength capable of lifting seven tons one foot.

SAYS *Puck*: "Fortune knocks once at every man's door, but does n't go hunting through the beer-saloons to find him if he happens to be out."

A BARREL of whisky contains a good deal more than any other barrel of the same size; for in addition to its regulation forty-two gallons, it also contains.—

A barrel of headaches, of heartaches, of woes,
A barrel of curses, a barrel of blows,
A barrel of tears from a world-weary wife,
A barrel of sorrow, a barrel of strife,
A barrel of all-unavailing regret,
A barrel of cares, and a barrel of debt,
A barrel of hunger, of poison, of pain,
A barrel of hopes ever blasted and vain,
A barrel of falsehood, a barrel of cries,
That fall from the maniac's lips as he dies,
A barrel of poverty, ruin, and blight,
A barrel of terrors that grow with the night,
A barrel of crime, and a barrel of groans,
A barrel of orphans' most pitiful moans,
A barrel of serpents that hiss as they pass,
From the bead on the liquor that glows in the glass.

POPULAR SCIENCE.

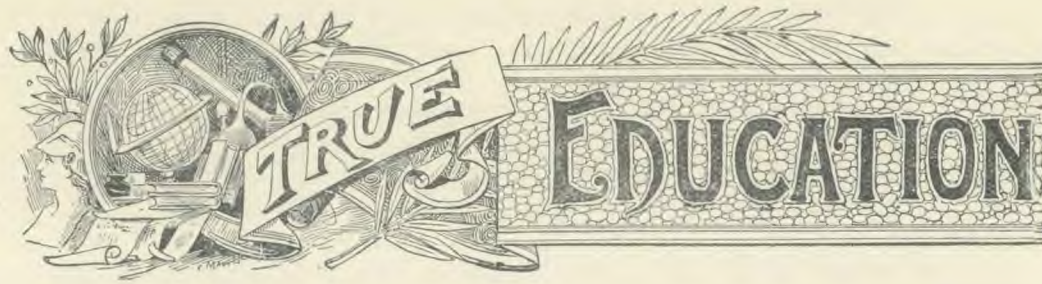
THE POWER OF NIAGARA.—Professor Ayrton has calculated that the force annually wasted, because no use is made of it, at Niagara Falls, is worth \$200,000,000. He says:—

"If we take as a low estimate that a large, well-made steam-engine burns only two pounds of coal per horse-power per hour, the coal consumption which would be equivalent to the waste of power at Niagara, would exceed 150,000,000 tons per annum, which, at only \$1.25 or \$1.50 per ton, means some \$200,000,000 wasted."

QUICKSAND.—Quicksand is composed chiefly of small particles of mica mixed largely with water. The mica is so smooth that the fragments slip upon each other with the greatest facility, so that any heavy body which displaces them will sink, and continue to sink, until a solid bottom is reached. When particles of sand are ragged and angular, any weight pressing on them will crowd them together until they are compacted into a solid mass. A sand composed of mica or soapstone, when sufficiently mixed with water, seems incapable of such consolidation.

ANOTHER POMPEII.—IN Dalmatia, Austria, a buried city has recently been excavated. Thousands of coins, sculpture, and specimens of Byzantine architecture were exhumed, the dates of which placed them back as far as the time of Diocletian. The temples, amphitheatres, and other public buildings showed that the inhabitants were highly civilized.

UTILIZING SUN HEAT.—Prof. Morse, of Salem, Mass., has recently devised an ingenious method for utilizing the heat of the sun for warming dwellings. This device, if practicable, would save millions now spent for fuel. The arrangement consists of a shallow box, the bottom of which is of corrugated iron, and the top of glass. This is placed outside the building, in such a position that the sun shines directly upon it. The heat-rays of the sun pass through the glass, and are absorbed by the iron, heating it to a high temperature; and by a system of ventilation, a current of air is passed through the apparatus and into the room to be heated. By this means the air has been heated on sunny days to about 90° Fahrenheit, by passing over the iron.



CO-EDUCATION OF THE SEXES.

THE question of the co-education of young men and young women has been much discussed during recent years. The subject is an important one, but we have not here space to give it more than a very brief consideration. Under proper restrictions as to intercourse with each other, we regard the co-education of boys and girls as beneficial to both, in accustoming each to the society of the other, and conducive to the development of desirable traits and the repression of undesirable ones in both sexes. The difficulties in preventing too intimate association of the sexes during school-life are sometimes so great, or the necessary restrictions so imperfectly maintained, that whatever advantages might be derived from proper associations are much more than neutralized by the evil results of too great intimacy between the sexes. A school at which boys and girls, or young men and women, are allowed to associate without the restraint of rigorous discipline and the enforcement of wholesome regulations, is a dangerous place for either sex; and schools in which the sexes are strictly isolated are decidedly preferable to such schools as these, which are, unfortunately, far too common. It may, in fact, be regarded as absolutely impossible for a faculty or board of trustees, in a school for both sexes, to prevent serious evils from growing out of the close associations of school-life and the opportunities for improper and injurious alliances, without the thorough coöperation of the parents of the students and of the community in which the school is located. This fact is well evidenced by the frequent occurrence of scandals in connection with colleges and seminaries, and the numerous elopements and premature marriages which originate in the too intimate association of the sexes during school-life.

The great objection which is urged against the co-education of the sexes, is that women have no practical use for the scientific and classical studies, to the acquirement of which a great portion of the period of study in our colleges is devoted. It should be borne in mind, however, that the discipline derived from a

thorough course of training in the classics and sciences is really of far greater value than the mere knowledge obtained. The Iliad and the Odyssey may be forgotten; the abstractions of mental philosophy may sink into oblivion; time may efface almost the last trace of the knowledge of facts so laboriously acquired; but the acumen of thought, the power of critical analysis, the strength and independence of character gained by the labor put forth in the acquisition of knowledge, can never be lost while reason remains enthroned. The majority of men who graduate from colleges do not spend their lives in translating Greek poems nor in solving the problems of Euclid. Probably two thirds or three fourths never look into their Greek or Latin text-books six months after they receive their diplomas. Their school studies are forsaken and soon forgotten; but the mental discipline which they received in their pursuit remains with them as valuable capital to be invested in any enterprise in which they may embark.

A sensible woman who has been thoroughly educated in the classics, mathematics, chemistry, and geology, need not necessarily make herself ridiculous by quoting Latin or Greek passages to her visitors, or spend her whole time in the collection of specimens of rocks and minerals, or in chemical investigations for the detection of some new metal, or in midnight observations for the discovery of a comet or a new planet. The mental training, the habits of close thought, the power of independent reasoning and investigation which the woman of sound mind acquires in a thorough college course, are of as great benefit to her in the performance of household duties as to her equally well-educated brother, engaged in the various departments of business life.

Another fact worthy of attention in this connection, is that the transmission of characteristics from the mother to the child by heredity, is as great as from the father, if not greater. If woman's training and education is such as to develop her mental faculties less than man's, the result cannot but be visible in the an-

ferior capabilities of their children. Girls have not, at least until recently, enjoyed the same opportunities for developing the mental powers which they might possess as have boys, so that superior inherited mental qualifications have undoubtedly in thousands of in-

stances lain dormant in women, because circumstances were not such as to expand and develop them; and for the same reason, these abilities have been totally lacking in their children, when if cultivated in the mother, they might have been transmitted to the child.

CHILD CULTURE IN THE KINDERGARTEN.

BY LILLIE A. AFFOLTER.

MANY people seem to think that to kill time is the only thing to be done for a child from the time it leaves its mother's arms, until it learns to read. They allow this interval, the most important part of the child's life, to pass unimproved. All the child's thoughts, affections, and character-forming are left to chance. In so doing, they are risking life-long difficulties for the child. Now is the time that a look, a touch, a word, may influence the bent of his future life.

While it is desirable that the child should possess bodily vigor, it is also important that mental activity and moral worth should be cherished. All that is in the child should be unfolded. Every faculty should be developed. His senses should be sharpened. He should be taught to teach himself, to control himself.

The kindergarten takes the child during this impressive age. It teaches him to do his own duty in the right spirit. It enables him to distinguish his duty from what may be another's. In its atmosphere of love, he is helped to be good. He is led to love his associates, to help them, to care for them. He recognizes the moral laws which restrain and guide his self-assertion, and is led to acts of self-denial. Here the child is treated as the gardener treats his plants. He is studied to see what he is and what he requires. He is cultivated, not drilled. All obstructions are removed. He is led to act in such a way as to make others happy, instead of only enjoying himself.

As the child works for what he learns, he develops

patience, perseverance, and will-power. Work is a delight. He learns to love it, for it is made so interesting to him that it is like play. He even becomes proud to call it work. Then, too, it is recognized that "deep meaning often lies in childish play." Since this is true, every game should be so directed as to promote the child's welfare. Play is his highest phase of development. To a keen observer, much of a child's future is disclosed in the way in which he plays. A child that plays thoroughly, with self-active determination, will make a thorough-going man. It is the play of the boy that ripens into the work of the man. His play has a bearing upon his future life. The restless activity is the foundation of enterprise of the mind.

This idea of training the playful activities of a child, is not new; for Plato says in his great book on laws: "Play has the mightiest influence on the maintenance and non-maintenance of laws; and if children's plays are conducted according to laws and rules, and they always pursue their amusements in conformity to order, while finding pleasure therein, it need not be feared that when they are grown up they will break laws whose objects are more serious."

In his "Republic" he says: "From their earliest years, the plays of children ought to be subject to strict laws. For if their plays, and those who mingle with them, are arbitrary and lawless, how can they become virtuous men, law-abiding and obedient? On the contrary, when children are early trained to submit to laws in their plays, love for those laws enters into their souls."

I do not believe that boys can be induced to apply themselves with vigor, and, what is much more difficult, with perseverance, to dry and irksome studies by the sole force of persuasion and soft words. Much must be done, and much must be learned, by children, for which rigid discipline and known liability to punishment are indispensable as means. It is, no doubt, a very laudable effort in modern teaching to render as much as possible of what the young are required to learn, easy and interesting to them.

But when this principle is pushed to the length of not requiring them to learn anything *but* what has been made easy and interesting, one of the chief objects of education is sacrificed. I rejoice in the decline of the old brutal and tyrannical system of teaching, which, however, did succeed in enforcing habits of application; but the new, as it seems to me, is training up a race of men who will be incapable of doing anything which is disagreeable to them.—*John Stuart Mill.*

SOCIAL PURITY

SOCIAL PURITY PLEDGES.

THE following are the social purity pledges adopted by the American Health and Temperance Association. A noble work for humanity may be done in every community in the land through the circulation of these pledges. The ideas embodied will cause an arrest of thought, and excite an interest in subjects which are too commonly tabooed, and so little studied that their importance is not appreciated. These pledges are printed in colors, on fine card-board, and can be obtained by addressing the secretary of the American Health and Temperance Association, Mrs. E. E. Kellogg, Battle Creek, Mich.; or the Good Health Publishing Co., of the same place.

Among the numerous lines of work carried forward by the N. W. C. T. U. in the department devoted to social purity, is the circulation of the "White Shield Pledge," the purpose of which is to enlist the interest of women in the uplifting of the outcast of their sex, and the protection of young women from degradation. The following are obligations embodied in the pledge as recently indorsed by the N. W. C. T. U. :—

"THE WHITE SHIELD OBLIGATIONS FOR WOMEN.

- "1. To exercise a spirit of charity toward the outcast woman, and endeavor to protect her from further wrong and degradation.
- "2. To maintain the law of purity as equally binding upon men and women, and carry out my principles in all social relations.
- "3. To especially discourage the association and marriage of virtuous young women with corrupt young men.
- "4. To endeavor to discourage all extravagance in dress, *decollate* costumes, and extremes of fashion.
- "5. To be a defender of the virtue of the orphan and working-girl.
- "6. To educate and train all young persons under my control or guardianship in these principles, and use all possible means to purify our homes."

A very attractive card bearing this pledge, is furnished by the Woman's Temperance Publication Association, Chicago, Ill., at the rate of one dollar per hundred. If this pledge could be widely distributed, and receive the general indorsement of the women of our land, not only by *name*, but by *act*, the thousands of their sisterhood now in slavery would welcome the dawning of a brighter day.

"THOU GOD SEEST ME."

PURITY PLEDGE FOR MEN.

I hereby solemnly promise by the help of God—

- I. To obey the law of purity in thought and act.
- II. To refrain from and to discountenance in others, vulgarity of speech, and indecent jests and allusions.
- III. To avoid all books, amusements, and associations calculated to excite impure thoughts.
- IV. To uphold the same standard of purity for men and women.
- V. To oppose all laws and customs which tend to the degradation of women, and to labor for their reform.
- VI. To endeavor to spread the knowledge of these principles, and to aid others in obeying them.

Name,

Date,

"BLESSED ARE THE PURE IN HEART."

"THOU GOD SEEST ME."

PURITY PLEDGE FOR WOMEN.

I hereby solemnly promise by the help of God—

- I. To obey the law of purity in thought and act.
- II. To refrain from and to discountenance in others, all conversation upon impure subjects, and to avoid all books, amusements, and associations which tend in the direction of impurity.
- III. To be modest in language, behavior, and dress.
- IV. To uphold the same standard of purity for men and women.
- V. To oppose all laws and customs which tend to the degradation of women, and to labor for their reform.
- VI. To endeavor to spread the knowledge of these principles, and to aid others in obeying them.

Name,

Date,

"BLESSED ARE THE PURE IN HEART."

THE NEW LAW.—The work of social purity in the prevention of crime, gained a strong championship in the bill that recently passed Congress, and became a law by the approval of President Cleveland, February 9. The bill raises the age of consent in the District of Columbia and other places over which the United States has jurisdiction, on land or sea, except

the Territories, to sixteen years; and all violations of the law, whether by perpetrator or accessory, are punishable by imprisonment at hard labor, for the first offense, not more than fifteen years; for the second, not more than thirty years. The Territories were excluded from the jurisdiction of the law, because they themselves possess legislation over the subject.

IMPURITY IN PUBLIC SCHOOLS.

WE quote below a few paragraphs from a circular recently issued by the W. C. T. U. of Connecticut to the teachers of that State. These significant words ought to set every parent to thinking. Very few teachers even, are aware of the iniquity often carried inside of little curly heads and mixed up with childish prattle; but by their timely coöperation, the knowledge of evil, even if not entirely prevented, may be at least postponed until such age as the child is able to discern between good and evil.

"To the Teachers of Connecticut:—

"Miss Ellice Hopkins, of England, founder of the White Cross movement, whose life for many years has been devoted to the cause of social purity, says: 'The only thing in my ten years' work that has filled me with the darkness of despair, has not been the facts about our back streets, but about our public and our private schools, where we send our own boys and girls to be educated.' It is a painful fact that at the present day 'innocence and childhood are not synonymous terms.' But it is to the young we must look as the hope of the world. If the youth and the little children are becoming corrupt, what hope or what light is there ahead for us? We must make an effort to remedy this evil; 'for death is come up

into our windows, and is entered into our palaces, to cut off the children from without, and the young men from the streets.'

"Parents can seldom be brought to see the corrupt morals of their own children, therefore few corrupt children are either admonished or punished by parents. But the teacher, who stands 'second parent' to the child, has an opportunity and authority not vested in any other individual in the community.

"We ask that school-children may be guarded as far as possible by the teacher's vigilant eye, against the obscene books and pictures now so freely circulated. We feel the need of careful oversight of children on the play-ground during recess, after school-hours, and in the dormitory. We do not think it would be amiss if our teachers, taking children of each sex by themselves, should give them a few serious, pointed lesson on the sacredness of the human body, 'the temple of the living God,' and admonish them against the impure story and the immodest act of any kind. This can be guardedly done without instructing children in any unknown vices. The teacher's instinct will usually guide to a better method of imparting such instruction than those less familiar with the school-room could suggest."

AMONG the Kafirs, one of the principal forms of merchandise is the trade in girls purchased and reared for sale in exchange for cattle. The amount a young woman will bring depends chiefly upon her weight. One of ordinary weight will command ten or fifteen cows; a very fleshy one, weighing two hundred and fifty pounds or more, twenty-five or thirty cows.

SLAVERY IN CHINA.—While such strenuous efforts are being made by various civilized nations to put an end to human chattelage in the benighted continent of Africa, would it not be well for these same powerful governments to bring a pressure to bear upon the semi-civilized nation of China, in which, according to good authorities, slavery abounds as extensively as in the wildest portions of the Dark Continent, and in forms even more repulsive.

The worst feature of Chinese slavery, is the debauchery with which it is closely allied. The laws of China place it within the power of the father to sell into servitude, at will, his wife, his children, or even himself. In times of want, parents frequently sell their

children for prices ranging from five to fifty dollars, according to their age or qualifications, or the state of the market, prices being regulated by the supply or demand, the same as with other commodities. It is a common practice for parents who have already as many children as they care for, to bargain away the additional little ones, almost as soon as they are born. The "basket man" may be seen in all the large cities, carrying unwashed and undressed girl babies, covered only with straw, and calling out his wares as freely and openly as any other street-vender. The babies are bought at very low prices, to be raised, trained, and then sold again as domestic servants, as concubines, or for infamous purposes.

Du Hald says, "The cities of Yangchow and Suchow are famous for furnishing great numbers of concubines, for which purposes they bring up fine, handsome young girls, whom they buy elsewhere, teaching them to sing, to play on music, and, in short, all sorts of accomplishments belonging to young gentlewomen, with a view of disposing of them at good prices to rich mandarins."

GOOD HEALTH

J. H. KELLOGG, M. D., EDITOR.
BATTLE CREEK, MICHIGAN.

SPECTACLES.

THERE are various forms of troubles with the eyes which require the use of spectacles; for instance, myopia, hypermetropia, and presbyopia. In myopia, or short-sightedness, the eyeball is too long. It is almost always congenital—a defect which has existed from birth. The appearance of the eye usually denotes this defect, if it is serious. In hypermetropia the eyeball is too short, and the vision becomes indistinct or blurred. Continued use of the eyes in this condition causes pain and fatigue. The focus of the eye constantly changes with the distance of the object toward which it is directed. In presbyopia, or old-sightedness, a person has lost the ability to regulate the eye to variations in distance. A change occurs in the eye when it is directed from an object near at hand to one that is distant, and *vice-versa*. In strong, young eyes, these changes are made instantly, and with no difficulty; but in old age the ability for adjustment is diminished. These difficulties of the eye are apt to get worse, unless they receive proper attention. When the eyeball is too short, as in hypermetropia, in the effort to see clearly the muscles are worked very hard, and they become weak and worn out, and all the muscular arrangement of the eye becomes disturbed. Especially is this the case in long-continued efforts at reading and studying. If you see a child flat in the forehead, and short in the antero-posterior diameter, you may be pretty sure that he has hypermetropia. It may not be known that there is anything the matter with his eyes, until he begins to go to school; then he will complain of pain in the eyeballs, and headache, and there will be redness of the eyes, and perhaps styes will form. In cases of myopia in children, they see objects near at hand, so that they do not realize that there is anything the matter.

Hypermetropia can be overcome by adjusting glasses so as to make the lens of the eye perfect, and this is much better than impairing the eyesight by con-

tinual strain. Glasses will put the overworked muscles entirely at rest. At first the eyes will fail to recognize such aid, and the person may complain of giddiness, and other difficulties of the kind, and think he cannot wear the glasses. The eyes are simply trying from habit to do the work which is now rendered unnecessary. By and by the eye will discover this, and settle down and be at rest. If such cases are taken in time, the eyes may be able to recover their normal conditions, and after awhile one will be able to dispense with glasses altogether. If not, glasses will be permanently necessary. This condition of hypermetropia is one that is universal in lower animals, such as cats, dogs, owls, etc.

In cases of myopia, glasses will always have to be worn; that trouble can never be outgrown. There are cases where the muscles become so weak that one cannot look at a near object. This is brought on by constantly taxing the eyes to look closely at a near object, as in using the microscope, or in crocheting and embroidering. Children in school get in the habit of focusing too strongly; the muscles become weak, and perhaps they will see double—not two entire objects, but two overlapping each other, or with blurred outlines. In normal sight, a distinct image of every object is formed in each eye, and by delicate adjustment, these are exactly superimposed upon each other, so that but one image is presented to the mind; but if the focusing muscles of the eye become weak, they fail to perform their work perfectly. A person may bring on this muscular weakness by reading when lying down, or by abuse of the eyes in various ways. He will then have to wear glasses that will assist his eyes to properly adjust the images formed upon the retina. It is not true that because a person puts on glasses he must necessarily wear them always. The difficulty may be of such a nature as to be wholly cured by the use of glasses for a few weeks or months.

THE ABUSE OF TEA.

We are just now hearing much about the abuse of tea and coffee, and the bad consequences which follow their excessive use. But unfortunately we are not told what is "abuse," or what is "excessive use." There is but one word to be said upon this subject. Habitual use is always abuse. This is true as regards every narcotic drug. Most of the drugs belonging to this class are of some service under various circumstances, although they are unquestionably very often used when unnecessary. But there is no possible excuse for the continued use of a single one of the whole category of drugs which soothe, stimulate, or intoxicate.

The following, which we quote from a popular magazine, is a very good statement of the baneful effects of these drugs:—

"All drugs which in small doses slightly stimulate or tranquilize, are harmful in large doses. Paregoric is a mild sedative, but the terrible condition of the confirmed opium-eater is well known. Chloral, when introduced, was gratefully welcomed by physician and patient, but the excessive use of it has changed it to a curse. Even cocaine, the youngest and seemingly the most innocent of all, has already its victims.

"A law that holds good of all such drugs is the following; viz., that the desired effect does not continue to be derived from the quantity which was at first used, but that the system, becoming partially habituated to its use, requires that the quantity be steadily increased, while the injurious results increase in the same ratio. Hence, all use tends to abuse.

"The above is true of that beverage which 'cheers but not inebriates.' We should expect it to be true of tea from its nature, and facts prove it to be so. The abuse of tea, in multitudes of cases, and the con-

sequent injurious effects, are vastly beyond what are generally supposed.

"When tea is analyzed, it is found to contain two powerful principles, or characteristic substances,—tannic acid and theine. The former is the astringent familiarly known as tannin. It is this, obtained from bark, which hardens skin into leather. Theine is a violent poison. Probably both the tannic acid and the theine concur in producing the effect which comes from excessive tea-drinking. This is two-fold, partly on the digestive and partly on the nervous system; in the first case giving rise to atonic dyspepsia; and in the second, to irritability, palpitation of the heart, wakefulness, and brain fatigue. Says the *British Medical Journal*,—

"The sufferers from excessive tea-drinking may be grouped into three classes:—

"(1.) The large class of pure brain-workers, who speedily discover that while alcohol is pernicious to them, tea affords the stimulus they desire. They indulge in it without fear of mischief, and often to an unlimited extent. After a time, the neurotic symptoms make their appearance, and in many cases, do much to impair temper, and to limit the capacity for sustained usefulness.

"(2.) The large class of women of the better classes who, beginning with afternoon tea, often end by using their favorite stimulant in the intervals between all meals of the day. The result is that appetite is impaired, and the prostration due to insufficient nourishment is combated with more potations.

"(3.) Factory operatives, especially women who, finding it difficult to provide a cheap and appetizing mid-day meal, fly to the teapot, and do a large amount of physical labor on this miserable dietary."

VITAL FIRE EXTINGUISHERS.

A RECENT writer in the *Medical Record*, referring to the use of powerful agents for the purpose of controlling fever in pneumonia and other febrile maladies, makes a few observations in the following paragraphs, which we think are well worthy of consideration:—

"The use of the thermometer in disease, has proved of great value in science; but since the abnormal rise of temperature has been specially noted, there has arisen in therapeutics, a potent fire-brigade, known as the anti-pyretics. This brigade has a formidable enginery, and has largely supplanted the older febrifuges.

The latter had some engines, which had to be used with great caution; but a number of them could be employed to refresh patients without the slightest risk of inducing mischief.

"Metropolitan fire-departments are splendidly equipped to master conflagrations. Alert insurance patrols are always on hand, however, not to quench flames, but to protect property from being destroyed by the zealously delivered deluge of the firemen. In medicine, we have no equally alert protective insurance patrol; a puissant anti-pyretic, while quen-

ing abnormal heat, may also extinguish the vital spark.

"In the present fashionable catalogue of remedies are found oxydimethylchinizine and phenylacetamide, or acetanilide. These potentates figure aristocratically when associating with chemical companions, each syllable being a conferred degree of respectability; but when herding with drugs, they appear each under a democratic alias, the former being known as anti-pyrene and the latter as anti-febrine.

"How do these and other modern *elite* syllables behave in the human economy, as they whirl through the blood in accord with the cardiac rhythm? The ghost of Holbein suggests a 'Dance of Death!' The ghost is as satirical as his old prototype, but, while the suggestion may be a vile inuendo, it, nevertheless, points to the necessity of extreme caution in exhibit-

ing powerful remedies, until after the most judicious observation such are found to be thoroughly reliable in safety and efficiency. Medicine has always been handicapped by its laggard branch of therapeutics. Chemistry has presented to science choice remedies, and is to bestow others vastly more valuable; but it must be remembered that among the originalities of the chemists, an article may appear as a 'Jekyll' on the shelf of the laboratory, and as a 'Hyde' on the counter of the apothecary. Recognizing the uncertainties attendant upon the use of drugs in the treatment of disease, it behooves the physician to place his patients, so far as it is possible, under the best hygienic conditions favoring recovery. Expectantly treating diseases under such circumstances, is often most salutary."

BRAINS AND STOMACHS.

Why are active brain-workers so frequently, we almost said, so universally, dyspeptic?—Evidently, because they use their brains better than their stomachs. Charles Dickens was an enormous eater; Bayard Taylor was a gormand and a beer-guzzler, and when he died was bloated to such an extent that his coffin could not be carried through an ordinary door, but had to be passed through a bay-window.

The dyspepsia of brain-workers is generally charged to excessive mental work. From observation we are satisfied that this is a mistake. It is not too much brain work, but too little muscle work, and neglects of the commonest principles of hygiene in its relation to digestion, that makes such pessimistic authors as Carlyle, such acute theologians as Calvin, such savage sceptics as Voltaire. The latter once wrote to Lord Chesterfield, "My Lord Huntingdon tells me that you

have a good stomach, which is worth more than a good pair of ears." Sydney Smith declared that he could feed or starve men into virtues or vices, and that the character, talents, virtues, and qualities are powerfully affected by beef, mutton, pie-crust, and rich soups.

Good humor helps to keep a man in good digestion, but is not a substitute for dietetic rectitude or ample muscular exercise. For example, Smiles tells us of a broken-down dyspeptic that one day consulted Dr. Abernethy. The Doctor looked him over then said,—

"Well, I don't think there is much the matter with you. You want stirring up; you want cheerfulness. Go and see that clever fellow, Grimaldi; you will get a hearty laugh; that will do you more good than physics."

"Alas," said the patient, "I am Grimaldi!"

HYDROPHOBIA IN CATTLE.—An epidemic of hydrophobia is prevailing among domestic animals of all sorts in West Virginia. Sheep, cattle, swine, and poultry, as well as dogs, are suffering from this disease. Naturally, beef and pork from that region is at a discount. Nevertheless, there is less danger of contracting hydrophobia from the use of beef from West Virginia, than of contracting tape-worm or tuberculosis from the use of the average beef sold in markets.

DIPHTHERIA COMMUNICATED BY BIRDS.—A recent sanitary publication calls attention to the possibility

of the communication of diphtheria by contamination of water with the excrements of birds and fowls. The writer cites as evidence of the correctness of this view the great prevalence of the disease in Venice, where pigeons abound probably more than in any other city in the world, and an outbreak of this disease in a family using for drinking purposes, cistern water which had recently been contaminated by washings from a neighboring hen-house, occasioned by heavy rains. This is a matter which ought to be further investigated, in the interests of sanitary science and healthful home surroundings.

THE RIGHTS OF ANIMALS.

To the mind of the average Englishman or American, the principal rights of dumb animals are to be hunted, to be worked, or to be eaten. The thought seems never to have penetrated his consciousness that animals may have the same right to exist, to breathe the free air of heaven, to bask in the sunshine, to engage in the thousand often marvelous industries of animal life, — in fact, to enjoy life generally, — as he himself has. It is interesting to note the contrast in the management of the animals of beef-eating and those of vegetarian nations. The carnivorous Englishman works his horse for all he is worth, and feeds him simply to be able to get more work out of him. The result is that the animal has a short life, though certainly not a merry one. The number of animals annually worked to death every year upon omnibuses, street-cars, trucks, hacks, and carts, is simply prodigious. The Italian peasant, a vegetarian, on the other hand, treats his work animals very differently. The donkey of the poorest peasant is to be seen with some sort of gaudy finery, — red tassels for its ears, or a huge bright-colored ornament for its collar, — even though its master may be clad in rags barely sufficient to furnish a covering. The sentiment expressed by the poet Ovid in the lines —

“For all things have an equal right to live:
Kill noxious creatures where 't is sin to save;
'T is only just prerogative we have.

A BAD BARGAIN. — A writer in the *Boston Post* tells in the following paragraph a story the moral of which is too evident to require comment: —

“I observed in the Boston papers of a recent date, a notice of the death, from a disease usually ascribed to bad drainage, or to some similar cause, of a man with whom I had a slight acquaintance. A few years ago I had occasion to call at his house, and found him just recovering from a severe attack of diphtheria, and he informed me that his wife was then ill of the same trouble, and had been at death's door. I suggested that there must be something wrong about his house. ‘Well, yes,’ he said, ‘there is. I went down cellar after my wife was taken sick, and found that the drain-pipe was broken, and the cellar floor saturated with its contents. I knew when I took the house, that the plumbing was bad, but I got it at a low rent, and I made my landlord put a covenant in the lease that all inside repairs should be made at his expense.’ Here he tipped me a wink, as much as to say, ‘You see what a good bargain I drove.’”

But nourish life with vegetable food,
And shun the sacrilegious taste of blood,”—
finds little indorsement among the people who speak the English tongue, who are doubtless the most carnivorous of all classes of men, with the exception of a few barbarous tribes who live almost wholly upon flesh.

An English periodical tells a story of a fireman who rushed into a building to save the life of a cat that had been left behind, and applauds this humane display of courage. Another English journal, the *Vegetarian Messenger*, takes occasion to comment upon the same incident as follows: —

“Yet the hero who was willing to run so much risk for a cat, and would probably do as much for a sheep or a cow, no doubt eats sheep and cow for his dinner like other people, without the slightest compunction. But then they are presented in the form of beef and mutton, and he does not realize that beef and mutton, in their natural state, run about on four feet. So true is it that ‘What the eye doesn't see, the heart doesn't grieve for.’ What we have to do is to persuade the eye to see. Vast numbers of people who have hearts as kindly disposed toward animals as can be, have not opened their eyes to the fact that the whole system of English life is based on cruelty to animals. We really must try to find spectacles that will aid their powers of vision.”

AN ECCENTRIC COUNT. — The eminent Russian author, Count Tolstoi, has acquired a world-wide reputation as a crank, in consequence of his reformatory notions. Most of his numerous novels have been written with the idea of disseminating reformatory ideas, and he has endeavored to do what few theorists have done; namely, to demonstrate the practical character of his notions of social economy, devoting his great fortune to that purpose. Although an aristocrat by birth and social prestige, he abhors aristocracy, and, with his daughters, associates with the peasants upon his estate, joining them in their various manual pursuits, and making himself, so far as possible, one of them. Foreign papers announce that he has recently made a new exhibition of his eccentricity, in organizing a temperance society called the “Society of the Temperate.” The members are pledged not to drink intoxicating liquors, nor to sell or offer them to anybody, but to labor to convince others of the dangers of intemperance. More of this sort of crankiness would be a gain to the world.

THE pope has recently pronounced against cremation.

A SMALL boy was recently committed to a New York Insane Asylum, having become insane from the use of cigarettes.

IN Russia, tea is the popular tippie, as is beer in Germany. The Russian derives as much exhilaration and intoxication from a half dozen to a dozen cups of strong tea, as does the beer-drinker from twice that number of mugs of beer.

A. BRONSON ALCOTT, the Concord philosopher, was known all over the world as a life-long vegetarian. In traveling, he was frequently importuned to eat flesh, but steadfastly refused. A lady was once urging him very strongly to eat a little meat, assuring him that if he would only live as other people did, he would soon become strong and robust. To this the old gentleman replied with a placid smile, "And be in danger of becoming a brute."

RUM IN A BEE-HIVE.—A queer story comes from Virginia. A lady in that State engaged in the keeping of bees, found her business very profitable, until recently, when a distillery was started in the neighborhood. It seems that the bees make frequent visits to the distillery, become intoxicated, and neglect their business, in which respect they are only following the example of thousands of bipeds, who are accredited with a higher grade of intelligence.

DISEASED MEAT.—The increasing prevalence among cattle and other animals of diseases communicable to human beings, is awakening much interest among medical and sanitary authorities, regarding the possible adoption of measures for stamping out the prevailing maladies, and preventing the consumption of diseased meat, which is now undoubtedly extremely large. An English health officer stated some time since, that the stomachs of Englishmen were the catacombs in which were buried the carcasses of more than 20,000 diseased animals. Probably many times that number of diseased animals are annually consumed in this country. Tuberculosis, anthrax, and other diseases communicable through the use of diseased flesh, are increasingly prevalent, and the time is not far distant, if it has not already arrived, when the use of the flesh of any animal which is not carefully inspected during life, and thus determined to be in a state of health, will be absolutely dangerous.

PATENT MEDICINES.—The *Druggists' Circular*, which ought to be an authority on such a topic, says of patent medicines:—

"'Get the best of whisky,' said Eli Perkins, 'and it will get the best of you.' Make the sentence read, 'Get the best of patent medicines, and they will get the best of you,' and you have expressed, in one short and homely phrase, pretty nearly the truth. Patent medicines, in the brighter day coming, will be regarded as dangerous products, and be placed under such limitations as law, common safety, and common sense demand."

A FAITH-CURE DIALOGUE.—The *St. Paul Globe* gives the following account of a dialogue between a faith-cure doctor and his patient:—

"The faith-cure doctor took the hand of his patient, and looking into his eyes, said, 'I can cure you.'

"'Are you sure?'

"'Very sure. All you've got to do is to believe. Just believe you're cured. That's all.'

"'All right; I'll try it. Good day.'

"'Hold on a minute, my man. Didn't you forget something?'

"'What?'

"'The fee. I charge a dollar a visit.'

"'Oh yes. Well believe. All you've got to do is to believe I've paid you, and it'll be all right.'"

THE VALUE OF PURE WATER.—Water is the most universal of solvents. The greater its purity, the greater its solvent properties; that is, the less foreign substance the water contains, the more it is capable of taking up. The tissues of the body contain many poisonous substances which must be dissolved and removed, that the body may be maintained in a state of health. At least two or three pints of water are needed daily for this purpose. If the water is impure, hard, or contains mineral substances of any sort, its value in the body as a solvent is lessened, and it may become a source of disease. The purest water is unquestionably the best, and no outlay in money for the purpose of supplying the necessities to a family or to a community, can be more wisely invested than in providing an ample supply of pure soft water. Distilled water has been found of great service in the treatment of various forms of disease, particularly diseases of the liver and the kidneys. In hard-water districts where a sufficient amount of rain-water for a year's supply cannot be collected and properly preserved, some simple form of distilling apparatus may be employed.

THE CAUSE OF DECAY OF THE TEETH.—The discovery is recently announced that decay of the teeth, like other forms of decay, is wholly dependent upon the action of microbes. The germs are always present in the mouth, and when sweet, starchy substances are retained upon the gums or between the teeth, they set up a sort of fermentation, which produces an acid capable of dissolving the enamel. Pure cultures of these microbes have been found capable of producing an acid which rapidly softens teeth exposed to its action. This discovery explains the deleterious effect of candies and other sweets upon the teeth. The teeth of children are often destroyed by the free use of sweets before the permanent teeth have fully made their appearance. As the consequence, the second set are defective, and also decay early.

MENTAL CONTAGION.—Mental maladies and conditions, as well as small-pox and hydrophobia, are contagious. This statement may startle the unobserving, but any person who has had a wide experience with the sick, or large opportunities for the observation of men, must have recognized this principle as sound. It is only by this fact that we can understand the rapidity with which the most flagrant errors and patent absurdities frequently find adherents. Prof. Jos. Jastron preached thus truthfully upon this subject in a recent paper:—

“Error, like truth, flourishes in crowds. At the hearth of sympathy each finds a home. The fanatical lead, the saner follow. When a person of nervous temperament, not strongly independent in thought and action, enters a spiritualistic circle where he is constantly surrounded by confident believers, all eager to have him share their sacred visions and profound revelations, where the atmosphere is replete with miracles, and every chair and table may at any instant be transformed into a proof of the supernatural, is it strange that he soon becomes one of them,—hesitatingly at first, and perhaps yet restorable to his former modes of thought by the fresh air of another and more steadfast mental intercourse, but more and more certainly and ardently convinced the longer he breathes the *seance* atmosphere? The form of contagion is so insidious in its onset, so difficult to check in its advance, so certain to leave germs that may at any moment reveal their pernicious power, as a mental contagion—the contagion of fear, of panic, of fanaticism, of lawlessness, of superstition. The story of the witchcraft persecutions, were there no similar records to deface the pages of history, would suffice as a standing illustration of the overwhelming power of psychic contagion.

BOIL THE MILK.—The frequency with which milk is contaminated by tuberculosis, typhoid fever, and the microbes of other maladies, renders it a safe precaution, to say the least, to boil this article of food before using it. This is especially important in case of invalids.

ECCENTRICITIES IN DIET.—It is sometimes useful for those who imagine that the appetite is always a safe guide in matters of dietetics, to consider the subject from the practical stand-point of a study of the dietary of different nationalities. A contemporary has taken pains to gather the following illustrations of the differences in taste manifested by different nations:—

“The preference of the Chinese for food that seems to our appetites absolutely disgusting, is well known. In Canton, rats sell for fifty cents a dozen, and dog’s hind quarters command a higher price than lamb or mutton. Fancy eating birds’ nests worth thirty dollars a pound! This is what a mandarin revels in. The French have beguiled us into eating frogs’ legs, which were once tabooed in this country, and we have even come to esteem diseased goose liver, in the form of *pate de foie gras*. The writer has met Brazilians who rave over boa-constrictor steaks, and count monkeys and parrots a very good meal. In the West Indies, baked snake is a common dish, as the reptiles abound, and it is a good way of getting rid of them. But when it comes to frying palm worms in fat, one would think the stomach would rebel. It is not so, however, though, by a strange inconsistency, stewed rabbit is looked upon with disgust. On the Pacific Coast the Digger Indians eat dried locusts, and in the Argentine Republic, skunk flesh is a dainty. Our own favorite bivalve, the oyster, is very disgusting to a Turk, while the devil-fish, eaten in Corsica, is equally so to us. We cannot understand, either, how the inhabitants of the West Indies and the Pacific Coast can eat lizards’ eggs with a relish; still less, how the eggs of the turtle and alligator can become a favorite article of diet. The Brazilians eat ants, probably to get rid of them, for they literally infest the country, and are of an enormous size. It is easy to pick up a handful of ants almost anywhere, though the wary do not go about it in this way, as the pestiferous insects bite in a most vicious manner. A curry of ants’ eggs is a great delicacy in Siam, and the Cingalese eat the bees whose honey they have stolen. The Chinese, who seem to have stomachs like the ostrich, eat the chrysalis of the silk-worm, after unwinding the cocoon. Spiders are used in New Caledonia as a kind of dessert, while caterpillars are also relished by the African bushmen.”

DOMESTIC MEDICINE



TO STOP HEMORRHAGE FROM THE LUNGS.—Apply hot fomentations to the spine, to the back of the neck, and also between the shoulders. Apply cloths wrung out of cold water about the neck, and over the chest. If possible, have the patient also inhale, with an atomizer, a one-per-cent solution of per-chloride of iron.

A NEWLY DISCOVERED SUBSTANCE.—Papayotin, a sort of vegetable pepsin, has been found to be very useful in the treatment of diphtheria, possessing the power to dissolve the mucous membrane. It should be used as follows: To a mixture consisting of four drams of glycerine and one and one half drams distilled water, add seventy-five grains of papayotin. Apply to the membranes with a camel's-hair pencil.

CATARRH CURES.—Of the great number of catarrh cures scattered throughout the country, there is scarcely one which is not absolutely worthless. A writer in a recent medical journal, speaks as follows upon this subject: "I have collected every catarrh, asthma, and hay-fever 'sure cure' that is in the market, numbering in all fifty-eight, and have carefully examined them. Eighteen of these 'sure cures' are bold-faced frauds. One ounce of quassia chips, a pound of table salt, and forty gallons of water, will make one barrel of 'sure cure' that sells for one dollar for a bottle holding six ounces. The same quantity of water, a pound of muriate of ammonia, a pound of ground cubebs, and a little common potash will make another 'cure' that sells for fifty cents for a bottle holding four ounces. These two are the best of the eighteen frauds."

BOILS.—The latest theory of the origin of boils is that they are due to germs. According to this theory, the modern method of treating boils is wholly wrong; the warm poultice being eminently calculated to encourage the vigorous development of the germs.

Persons who have suffered much from boils, have often remarked the development of the luxuriant crop of these comforters in the immediate vicinity of the original boil, evidently due to the application of the poultices. Indeed, it is well enough known to physiologists, that prolonged poultices will develop a crop of small boils on the most healthy skin, all of which seems to favor the new theory, and to suggest that the best means of discouraging an incipient boil, is to apply ice-compresses, which will hinder the growth of the microbes and possibly thus give nature a chance to dispose of them by absorption or otherwise, or afford the white blood corpuscles an opportunity to eat them up, according to the latest theory of the function of these interesting constituents of the blood.

THE TREATMENT OF BOILS AND CARBUNCLES WITHOUT INCISION.—Dr. C. G. Carleton [*Medical World*] writes: "A man with a carbuncle on the back of the neck, consulted me at my office, and as there were already some half dozen small openings, it occurred to me to apply, within the openings, Battey's solution of iodofied phenol, which was standing on my table for gynecological use. This solution consists of the scales of iodine, one drachm, to carbolic acid crystals just liquefied by water, four drachms. I wound a probe with cotton, and dipping it in the solution, thrust it in all directions into the openings, and, as well as I could, saturated the sloughing tissues with it. I gave the man tonics, and no opiate, and that night, for the first time, he slept; and a few days, with a couple of more applications of the local treatment, sufficed for his recovery. The anæsthetic effect of the strong carbolic acid, and the caustic stimulant effect of the strong combination, seem to be just what is needed in this painful and indolent disease. I think I have sometimes aborted furunculi and hordeoli by applying this in the early stage to the apex of the swelling; and after a boil is opened, its application to the interior is useful."—*American Medical Journal*.

TEST FOR ARSENICAL WALL-PAPER.

THE manufacturers of this ingenious agent of death, arsenical wall-paper, have recently renewed their activity. Finding that the public had ceased to be on the alert, being led to believe that poisonous colors were no longer used in the manufacture of wall-papers, they have recently begun to employ it again, as evidenced by several reports of poisoning from this source. In view of this fact, we clip from the *British Medical Journal*, the following new and simple test for arsenic in wall-paper, which will be appreciated by our readers as timely:—

“A simple and easily applied test for wall-papers has been devised by Mr. F. F. Grensted. No apparatus is needed beyond an ordinary gas jet, which is turned down to quite a point, until the flame is wholly blue. When this has been done, a strip of the paper suspected to contain arsenic is cut one sixteenth of an inch wide and an inch or two long. Directly the edge of this paper is brought into contact with the

outer edge of the gas flame, a gray coloration, due to arsenic, will be seen in the flame (test No. 1). The paper is burned a little, and the fumes that are given off will be found to have a strong garlic-like odor, due to the vapor of arsenic acid (test No. 2).

“Take the paper away from the flame, and look at the charred end; the carbon will be colored a bronze red. This is a copper reduced by the carbon (test No. 3). Being now away from the flame, in a fine state of division, the copper is slightly oxidized by the air, and on placing the charred end, a second time, not too far into the flame, the flame will now be colored green by copper (test No. 4). By this simple means it is possible to form an opinion, without apparatus, and without leaving the room, as to whether any wall-paper contains arsenic; for copper arseniate is commonly used in preparing wall-papers. The first and second tests would be yielded by any paper containing arsenic in considerable quantities.”

HOW NOT TO CATCH CONSUMPTION.

DR. C. V. CHAPIN, of Providence, R. I., author of a prize essay on consumption, gives the following suggestions respecting the prevention of this disease:—

“1. Teach the people the true nature of tuberculosis—that no one ever has tubercular consumption unless the tubercle bacilli find their way into the lungs.

“2. Teach them also that, even if it finds its way there, it will not grow unless the conditions are right. Teach fathers and mothers how to rear healthy boys and girls. Tell them what to eat and what to wear, and to exercise, and to breathe fresh air. This alone would exterminate phthisis.

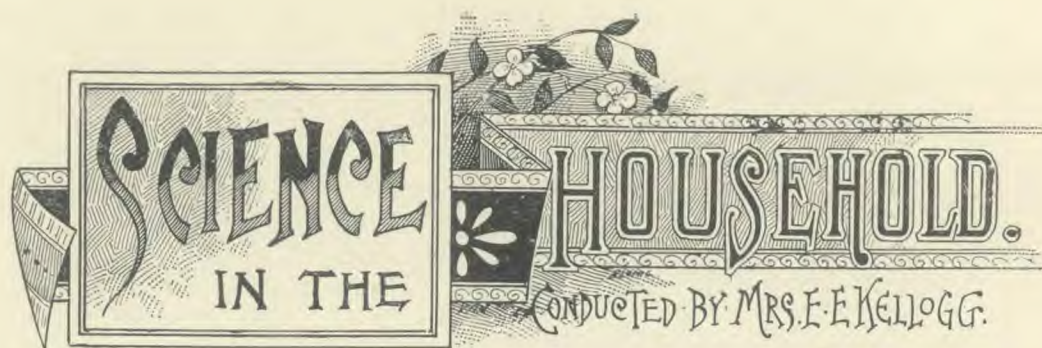
“3. The contagion must be destroyed. Fortunately

in this disease there is no need of isolation. Disinfection is enough. The consumptive patient gives off the poison only in the sputum, or perchance the other excreta, if the disease extends beyond the lungs. The virus is not given off from these while moist. We must therefore disinfect all sputum at once with mercuric bi-chloride. Cloths must be used instead of handkerchiefs, and then burned; or, if the latter are used, they should be often changed, and immediately put into a bi-chloride solution and boiled. Bed-linen should be treated in the same way. Frequent disinfection of the entire person, and fumigation of the apartment, would be safe additions to the preventive measures.”

FOR DIPHTHERIA.—The latest remedy suggested for local application in the treatment of diphtheria, is a mixture composed of equal parts of tannin, mucilage, and alcohol. It should be freely applied every hour or two, with a swab.

FIGHTING DISEASE WITH DISEASE.—Several German surgeons have undertaken the treatment of cancer by inoculation with erysipelas. They claim that they have thus been able to prolong the lives of persons suffering from this hopeless malady, though no cures have been effected. It is not impossible that some success in this direction may yet be attained.

INFANTILE DYSPEPTICS.—The foundation for chronic dyspepsia is often laid while the child is in the cradle or in its mother's arms. The practice of nursing a child whenever it cries, which inevitably results in overeating, distends the stomach, as well as overworks it, thus producing a weakness, which if not temporarily overcome, or kept under control by special care in the feeding of the child, appears in later years as chronic dyspepsia. A mother should regard frequent fits of indigestion in a child, as of greater consequence than inconvenience to the little one and the loss of a night's sleep to herself. They may mean, ultimately, a life-long weakness or disease.



SEASONABLE BILLS OF FARE.

BREAKFAST NO. 1.

- | | |
|---------------|---------------------------------|
| | Florida Oranges. |
| | Rice, with Fig Sauce and Cream. |
| Cream Rolls.* | Whole Wheat Puffs,* |
| Potato Cakes. | Baked Sweet Potato. |
| | Snowflake Toast.* |

BREAKFAST NO. 2.

- | | |
|------------------------------------|------------------------|
| Malaga Grapes. | Soft Custard. |
| Graham Mush, with Dates and Cream. | |
| Corn Cakes. | Granulated Wheat Gems. |
| Potato Hash. | Celery. |
| | Poached Eggs on Toast. |

POTATO CAKES. — Make nicely seasoned, cold mashed potato into small round cakes about one half an inch thick. Put them on a baking tin, brush them over with sweet cream, and bake in a hot oven till golden brown.

GRAHAM MUSH WITH DATES. — Into a kettle of boiling water, stir slowly, until of the desired consistency, coarse graham flour, previously braided with a little cold water, so that it is not lumpy. Cook in a double boiler for half an hour. Just before serving, stir in some stoned dates. Serve hot, with cream.

GRANULATED WHEAT GEMS. — To one cup of ice-water add one cup of cold, rich milk. Into this stir slowly two and one half cups of granulated wheat meal, beating long and rapidly, until the mixture is full of air bubbles. Have the gem-irons clean and very smooth and hissing hot. Fill quickly, giving the batter a brisk beating several times during the filling, and bake at once in a very hot oven.

*For recipes for Snowflake Toast, Cream Rolls, and Whole Wheat Puffs, see back numbers of this magazine.

POTATO HASH. — Take equal parts of cold Irish potatoes and cold sweet ones. Chop each finely, and mix thoroughly together. Season with salt, if desired, and sufficient thin cream to moisten well. Turn into a stew-pan, and heat gently until boiling, tossing continually, so that all parts may become heated alike. Serve hot.

SOFT CUSTARD. — Milk boiled, then cooled to 180°. Add three whipped eggs to each quart of milk, and keep to the temperature of 180° for fifteen or twenty minutes. The object is to coagulate the eggs without producing the bad effects of exposure to a high temperature.

Gluten custard may be prepared in a manner similar to the above.

RICE, WITH FIG SAUCE. — Steam a cupful of best rice in two cups of milk and one of water, until perfectly tender and dry. Prepare a sauce by stewing a cup of chopped figs in a pint of water to which has been added a tablespoonful of sugar, until they are a homogenous mass. Dish a spoonful of the fig sauce with each saucer of rice, and serve with plenty of cream. Rice served in this way requires no sugar for dressing, and is a wholesome breakfast dish for children.

CORN CAKES. — Mix thoroughly with one cup of white corn meal, one teaspoonful of sugar and one fourth of a teaspoonful of salt, if desired. Pour sufficient boiling milk over the meal to scald it and make it thick enough not to spread when put on the griddle. Drop the mixture on a soap-stone griddle, with a large spoon, making the cakes about half an inch thick. Cook slowly, and when browned, turn over. They cannot cook too long, provided they do not burn.

IRONING AND POLISHING.

THE fine, glossy appearance given to linen by professional launderers has long been regarded with envy by housekeepers, who, after many unsuccessful attempts at imitation, generally decide that if they desire nice work done they must send it out to a laundry. It is, however, quite possible, with care, for housekeepers to secure results in every way equal to professional work.

In preparing the starch for linen, allow one tablespoonful of good starch for each set of shirt, collar and pair of cuffs to be starched. Braid this in a little cold water, and add a small piece of wax prepared by melting together equal parts of spermaceti, white wax, and paraffine.

This prevents the irons from sticking, and also aids in securing a polish. Stir this braided starch, and pour over it enough boiling water to make it clear, but stiff. Lay the piece to be starched on a clean, smooth board, and rub in all the stiff starch it will absorb. Wipe off the starch on the right side, and

hang up to dry, smoothing out all the wrinkles.

Dampen the linen only a short time before ironing. For shirts, the preferable way is to lay a damp cloth over the bosom, lightly sprinkle the rest of the garment, and roll up tightly. For cuffs and collars, place each smoothly between folds of thin damp cloth, and lay away an hour before ironing.

For polishing, the rough-faced Troy polishing-irons are best, but on account of their indented surface they must be heated very hot. After ironing the body and sleeves of shirts, place a bosom-board under the bosom, smooth carefully, and then with heavy pressure rapidly move the polishing-iron up and down its surface until sufficiently polished. Should any part be too dry to polish well, rub lightly with a damp cloth, and polish again. Polish collars and cuffs on both sides, the right side last.

Keep the polishing-iron clean by occasionally scouring with powdered emery, and washing with an old tooth-brush.

OLD flannel of all kinds is the best material for scrubbing and cleaning paint.

WHEN making a new carpet, save the ravelings for use in darning it at some future time.

IT is very necessary after sweeping, to wash out the throat and nostrils with warm water. One would better let the face and hands go without washing in this case than let the nasty, fine, black dust be absorbed by the delicate lining of those organs.

TABLE OF MEASURES AND WEIGHTS. — Housekeepers will find a copy of this useful pasted over their baking-table: —

- 4 saltspoonfuls = 1 teaspoonful.
- 3 teaspoonfuls = 1 tablespoonful.
- 4 tablespoonfuls = $\frac{1}{2}$ cup.
- 2 gills = 1 cup.
- 2 cups = 1 pint.
- 2 pints = 1 quart.
- 4 quarts = 1 gallon.
- 4 cups flour = 1 pound.
- 2 cups sugar = 1 "
- 3 cups meal = 1 "
- 1 cup solid butter = 1 pound.
- 1 heaping tablespoonful butter = 2 ounces.
- 1 " " " sugar = 1 ounce.
- 1 tablespoonful liquid = $\frac{1}{2}$ ounce.

TO WASH CHAMOIS-LEATHER GLOVES. — Put the gloves on the hands, and wash the same as if one was washing the hands. When clean, take them off under the water, as that keeps them in shape; wring dry in a towel, open with a glove-stretcher, and hang them up to dry. If the directions are followed, they will look as nice as new.

MRS. EMMA P. EWING, professor of domestic economy at Purdue University, gives the following condensed recipe for bread-making, which we are sure will be found wholly reliable: —

"To each quart of lukewarm wetting, add an ounce cake of Fleischmann's compressed yeast, dissolved in a portion of the same, and a teaspoonful of salt; then stir in flour, with a wooden spoon, until a dough is formed sufficiently stiff to be readily lifted from the bowl in a mass. Put this dough on the molding-board and work ten or fifteen minutes, adding flour, as desired, until it ceases to stick to the fingers or the molding-board; then put it in a warm earthen bowl, well greased, cover with a bread towel and blanket, and set to rise till light, which, if kept at a temperature of 75°, will be in about three hours. As soon as sufficiently light, form into loaves or rolls, put in greased pans, cover as before, and again set to rise for an hour, at the same temperature, and then bake. The oven should be at the proper temperature — from 350° to 400°.

QUESTION BOX.

[All questions must be accompanied by the full name and address of the writer, as it is often necessary to address by letter the person asking the question.]

MOLES.—E. A. R. inquires, "Can moles be effectually removed? If so, would scars remain?"

Ans.—Moles can sometimes be removed by the skillful application of electricity. We know of no other means by which this can be accomplished. A slight scar usually remains when the treatment is applied with the greatest skill, and unless great care is taken, an ugly scar may be the result.

COLD-WATER-DRINKING.—C. T. A., Iowa, inquires whether it is healthful to drink cold water when one is not thirsty.

Ans.—Thirst is an indication of the need of liquid food. As a rule, the desire for water is indicated by thirst, and should be accepted as a proper indication. In some cases, however, the use of cold water may be beneficial when one is not thirsty, as taken before breakfast for the relief of constipation. As a rule, we find hot water much to be preferred as a drink to cold water, especially if it is to be taken in any considerable quantity, or near the time of eating.

ULCERATED GUMS.—M. O. V. wishes a prescription for ulceration of the gums, caused by having a tooth extracted, and asks if buttermilk from perfectly sweet cream is healthful.

Ans.—1. It is probable that the gums were lacerated by the roots of the tooth or the instruments of the dentist. Some astringent lotion, such as a tablespoonful of fluid extract of hydrastis to a half pint of water, or a teaspoonful of alum to a pint of water, applied two or three times a day, taking pains to keep the mouth thoroughly cleansed, will generally give relief in a few days. 2. Yes; sweet buttermilk will agree with some stomachs which will not tolerate milk in any other form.

NATURAL GAS FOR HEATING PURPOSES—PLEURISY—QUININE FOR COLDS—SORENESS OF THE STOMACH, ETC.—H. B. S., Indiana, asks the following:—

"1. What do you think of the healthfulness of natural gas for heating purposes? 2. If natural gas makes the air too dry, how can it be remedied? 3. What is the proper temperature for a room? 4. What is a good remedy for pleurisy? 5. What do you think of the efficacy of quinine in stopping the progress of a cold, or in breaking up one? 6. What is a good remedy for soreness of the stomach upon

pressure? 7. What remedy can you suggest for pigeon-toes in a boy two years of age?"

Ans.—1. When burned in a grate with proper arrangements for the exit of gases, we see no reason why it should not be as healthful as coal, or any other fuel. 2. There is no difference in fuels in regard to dryness of air. The apparent dryness of the air is due to its increase in temperature. The absolute amount of moisture remains the same, but owing to the increased capacity for holding moisture, which doubles with the addition of every 25° of temperature, the air which has been heated seems very dry, and requires the addition of moisture, which may be effected by means of a water-pan in the air-chamber of the furnace, or by the evaporation of water by any other means. To maintain the most healthful condition of the air as regards moisture, an ordinary room requires the evaporation of at least one gallon of water every twenty-four hours. 3. For the majority of people, a temperature of 70° is necessary for health and comfort. Elderly people usually require a somewhat higher temperature. The temperature maintained in dwelling-houses and hospitals in England, we found to be about 60°; but this seemed to us too low, as we were never quite comfortable, and we found other persons, not natives of England, making the same complaint. A Scotch physician declared in our hearing, before a large audience, that during a residence of twenty years in England, he had never once been warm. Nevertheless, the generality of people born in the country, seem to require no higher temperature. 4. An attack of this disease requires the attendance of a physician. Fomentations and hot poultices are excellent remedies, and usually afford relief. 5. We have not, in our experience, had reasons to place confidence in this remedy. 6. Avoid irritating foods, coarse vegetables, acid fruits, fats, sugar, and all rich foods. Very hot or very cold drinks should also be avoided. Fomentations or hot bags applied to the stomach half an hour or an hour after each meal, often afford relief. A poultice or a warm compress worn over the stomach during the night, is also an excellent remedy. Sub-carbonate of bismuth, twenty-grain doses half an hour or an hour before eating, we have found useful. 7. Such a case requires mechanical treatment. A good surgeon should be consulted, who can take proper measurements, and order a suitable apparatus, to be worn until the defect is corrected.

LITERARY NOTICES.

THE *Voice* comes weekly to our table, and we feel like saying good words for it whenever practicable. This paper is the loyal champion of prohibition, and as such deserves the support of all who love temperance and humanity. Whether fully agreeing with all its views or not, yet one can but respect its earnest and fearless utterances. It is invaluable to all workers in the good cause. Eight pages of close reading matter for one dollar per year. A premium in addition, is given to each new subscriber. Messrs. Funk and Wagnalls, 18 and 20 Astor Place, New York City.

ATHOTHIS: A SATIRE ON MODERN MEDICINE. By Thos. C. Minor. Robert Clark & Co., Cincinnati.

This book is what it purports to be, and abounds in clever hits at many of the modern theories and much of the modern practice of medicine. Although the style is wierd throughout, and decidedly "uncanny" at times, yet one must admire the skill with which the author wields first bludgeon, and then Damascus blade, and too, the facility with which he substitutes the one for the other. Taken all together, it is a strong book, and will accomplish a two-fold purpose; for while slaughtering the incompetent, it will stimulate the able practitioner to worthier effort.

Scribner's opening article in the March number, belongs to the famous "Railway Series;" this one being written by ex-Postmaster-General Thomas L. James, and entitled "Railway Mail Service." It has a fine frontispiece and illustrations by Herbert Denman. A noteworthy article is that on the city of Treves, or Trier, by Prof. W. B. Scott, of Princeton, to which the recent restorations and excavations by the Prussian Government have first given its proper importance as a center of Roman antiquities. This is illustrated from photographs of Prof. Scott's own collection. Mr. Apthorp's notable article on "Heroes and Heroines of Wagner," is also richly illustrated. Chas. Scribner's Sons, New York.

THE MARCH *Atlantic* furnishes a *menu* of great variety. The *piece-de-resistance*, however, would seem to be history, as we have it served in two most agreeable forms. "The Keiths," by Hope Notnor, are "two braw Scots" who are set in a mosaic of contemporaneous European history, while a strong light is turned on that of our own country, in Mr. Fisk's "Ticonderoga, Bennington, and Oriskany." The serial of Mr. Henry James—"The Tragic Muse"—abounds as usual in

character-studies, and Charles Dudley Warner writes on "Simplicity," in his own enjoyable way. "Passe Rose," by Mr. Hardy, is as fine as ever. Mr. Stewart F. Weld discusses the possible policy of our Government in relation to the Isthmus Canal, while Frank Gaylord Cooke tells us about "Some Colonial Lawyers, and their Work." The paper on "Personal Reminiscences of William H. Seward," is written jointly by Samuel J. Barrows, and his wife, Isabel C. Barrows, and is of especial interest from the fact that the former was Mr. Seward's private secretary, as was Mrs. Barrows also for a time, during the illness of her husband. The poems of the number are Mr. Whittier's, "The Christmas of 1888," and verses by E. Wilson. Houghton, Mifflin & Co., Boston.

CAPTAIN GLAZIER AND HIS LAKE. An inquiry into the history and progress of exploration at the headwaters of the Mississippi since the discovery of Lake Itasca. By Henry D. Harrower. Educational Reporter-Extra, 58 pp. paper. Ivison, Blakeman, & Co., New York and Chicago.

This pamphlet, published in the interest of geographical science, is chiefly a refutation of the claims of one Captain Willard Glazier to the discovery of the source of the Mississippi, yet is made of interest to the general reader by the painstaking collection of facts and data relative to the discoveries and explorations in the Itascan region. The results of the late exploring expedition, sent out while this pamphlet was in press, will, without doubt, forever settle the many vexed questions concerning this subject.

THE *Chautauquan* for March brings its usual number of excellent articles, among which we notice, "The Commercial Relations of American Countries," by Prof. A. D. Morse, of Amherst College,—the Gladstonian policy of which, by the way, we heartily approve,—an earnest and philanthropic article on "The Care of Criminals," by Hon. Z. R. Brockway, Gen. Supt. of the New York State Reformatory, and a carefully considered paper of interest in mechanics, by Ernest Ingersoll. Dr. John S. Billings, Surgeon of the United States army, gives us much practical information on how to obtain a water-supply for a small town. A valuable addition to the series on the various nationalities in the United States, is the paper on "The Italians," by Prof. C. L. Spranza, of Columbia College. Address, The Chautauquan, Meadville, Pa.

PUBLISHER'S PAGE.

VARIOUS exigencies have occasioned some delay in the publication of this number, but its excellence, we trust, will repay our readers for their patience in waiting for it.

* *
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The Sanitarium Training School for Nurses is in a flourishing condition. The present number of students is eighty. It affords pleasure to the managers to find in the class a large number of young men and women of more than average intelligence, before whom there is open a large sphere of usefulness when they have acquired the knowledge and training for which an opportunity is offered them in this school. The demand for Sanitarium nurses is always greater than can be supplied. The managers believe that they could, without difficulty, find positions for two or three hundred well-trained nurses, in addition to those now employed.

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THE publishers have in hand a very interesting description of the Trappist monastery, located at Gethsemane, Kentucky. The manuscript was prepared by the Abbot of the order, at the request of the editor. One of the peculiarities of the Trappists is that they abstain entirely from the use of flesh food, never tasting flesh, fish, or fowl. They eat but two meals a day during the summer months, and but one meal a day during the winter. Their life is a laborious one. Their duties are exacting, and their fare exceedingly frugal. Nevertheless, or, we should perhaps more properly say, consequently, they are wonderfully free from disease, and die only from old age. Through the kindness of the writer of the manuscript, we have been provided with excellent photographs of the monastery and the monks, some of which we shall reproduce to illustrate the article, which will appear in an early number of the journal, and we trust will be found by our readers very interesting reading.

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We feel sure that our readers have been greatly interested in the perusal of the series of articles by Dr. Oswald, which is concluded in the present number. We also feel certain that we shall afford great pleasure to many thousands of the readers of GOOD HEALTH by the announcement that we have arranged with the doctor for another extended series of articles under the general head of International Health Studies, which will be brimful of interesting information respecting the health habits of various nations, and practical lessons drawn therefrom, and sprinkled with the trenchant wit for which Dr. Oswald is so eminent. The Philadelphia Press credits Dr. Oswald with being as "epigrammatic as Emerson, as spicy as Montaigne, and as caustic as Heine."

For the benefit of those of our readers whose interest in the doctor's articles may lead them to wish to know more about his personality, we quote the following from the *Popular Science Monthly* :—

"Dr. Oswald is a medical man of thorough preparation and large professional experience, and an extensively traveled student of nature and of men. While in charge of a military hospital at Vera Cruz his own health broke down from long exposure in a malarial region, and he then struck for the Mexican mountains, where he became director of another medical establishment. He has also journeyed extensively in Europe, South America and the United States, and always as an open-eyed, absorbed observer."

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7 THE SANITARIUM SCHOOL OF DOMESTIC ECONOMY is proving a great success. The present class is a large and very promising one. Mrs. E. E. Kellogg gives lectures to the class twice each week, and on other days the members of the class engage in practical drills, which illustrate and impress the principles presented in the lectures. Applications are almost constantly received by the managers for graduates of this school, to fill positions as instructors in college dormitories and similar institutions. Here is a fine field for young women of tact and ability who appreciate the dignity and responsibility of the position of a scientific cook or housekeeper, and are willing to devote their energies to this important work. The idea that cooking and housekeeping are menial employments, disappears at once when these most important professions are illuminated by the light of science, and lifted up from the low level at which they have been held by the rule of "thumb methods" so long in vogue. A young lady said to the writer a few days ago, "Before I came to the SCHOOL OF DOMESTIC ECONOMY, I never did housework, and never prepared a meal in my life. I thought this kind of work beneath me, and had no liking for it; but since I have learned how to cook and keep house on scientific principles, I enjoy it immensely, and think it worthy of my best efforts."

By scientific training, the work of the cook or the housekeeper is elevated to an equality with other departments of skilled labor. Thoroughly trained cooks, and persons scientifically trained in the various departments of domestic economy, can command compensation equal to that paid for any other skilled employments.

* *
*

A NEW WORK.—THE GOOD HEALTH PUBLISHING COMPANY has just issued a little work which has been long promised, and for which there has been a great demand; but the author's time has been so fully occupied with other duties that he has not been able until now to give the necessary attention to the work to put it through the press. The work is entitled, "Ten Lectures on Nasal Catarrh; Its Nature, Causes, Prevention, and Cure, and Diseases of the Throat, Eye, and Ear, Due to Nasal Catarrh; with a Chapter of Choice Prescriptions." Illustrated. This work consists of the substance of lectures given by the author, Dr. J. H. Kellogg, at various times, for the instruction of his patients. In the words of the author the purposes of its preparation have been—

"1. To antagonize the popular notion that nasal catarrh is an incurable malady, an error that is productive of vast mischief, as it leads to neglect of the disease, entailing sufferings which timely attention might easily have prevented.

"2. To provide in convenient form a manual of the hygiene of this disease, which is the most essential feature of its successful treatment.

"3. To warn the public against catarrh charlatans, and the much-vaunted 'catarrh remedies' so widely advertised. The evils wrought by these 'workers of iniquity,' are almost beyond estimate.

"4. To present an outline of the modern methods of treating this malady, as practiced by scientific specialists, and also the results of the author's personal experience and observation in the treatment of some thousands of cases of this disease."

The work consists of one hundred and twenty pages, and is embellished with a colored frontispiece and six beautifully colored plates, besides many illustrative cuts, of the throat and nasal cavity in health and disease. There is a great demand for the work, and the prospect is that the first edition of five thousand copies will be entirely sold by the time a second edition can be issued. Nicely bound in stiff covers. Price fifty cents, postage paid.

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TOURIST RATES TO BATTLE CREEK.—THE great increase of passenger traffic to and from Battle Creek within the last few years, has attracted the notice of the managers of the several railroads centering in this city, now some five in number, and at a recent meeting of the Central Traffic Association, the matter of making Battle Creek a tourist point was discussed, at the request of the managers of the Sanitarium, by the representatives of the various railroads belonging to the association. According to the evidence presented by the books of the Sanitarium, nearly four thousand persons annually visit Battle Creek, from abroad, as patrons of that institution. This number so far exceeds the number of persons who annually visit the average resort, that the railway managers promptly decided to place Battle Creek upon the list of tourist resorts, and not merely for the season, which lasts from June to October, but for the entire year. Beginning with the first of June next, persons visiting Battle Creek from any part of the United States, will be able to obtain tourists' rates, which are about two thirds the usual rates. The railway companies are now preparing their new rate tables, which will shortly be published. The managers of the Sanitarium will then issue circulars to their old patrons, giving the reduced rates of fare from the various points.

A leading city paper refers to this action as follows: "Its importance as a measure to advance the material interests of Battle Creek, can scarcely be overestimated, as the concession is made, not merely for the season of summer travel, but for the entire year, and tourist tickets at reduced rates, good for ninety days, will be put on sale by all prominent railroads connecting with those passing through our city.

"Probably no single measure has recently been set on foot so valuable as this to the commercial interests of our city, as the recognition in this manner is a splendid advertisement in itself. It not only accommodates people already intending to visit the city, but holds out an inducement to those who might otherwise not determine to do so.

"The importance of the Sanitarium as a factor of our municipal prosperity is thus seen to far exceed its own immediate belongings, imposing as these already are, and many who have been attracted by it to our borders, have permanently located here, in view of the city's attractions, as a place for business and residence."

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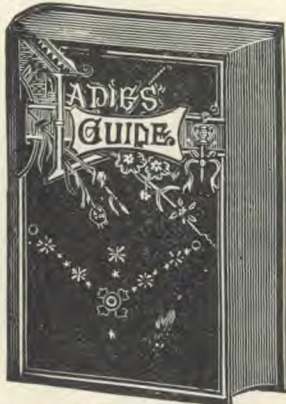
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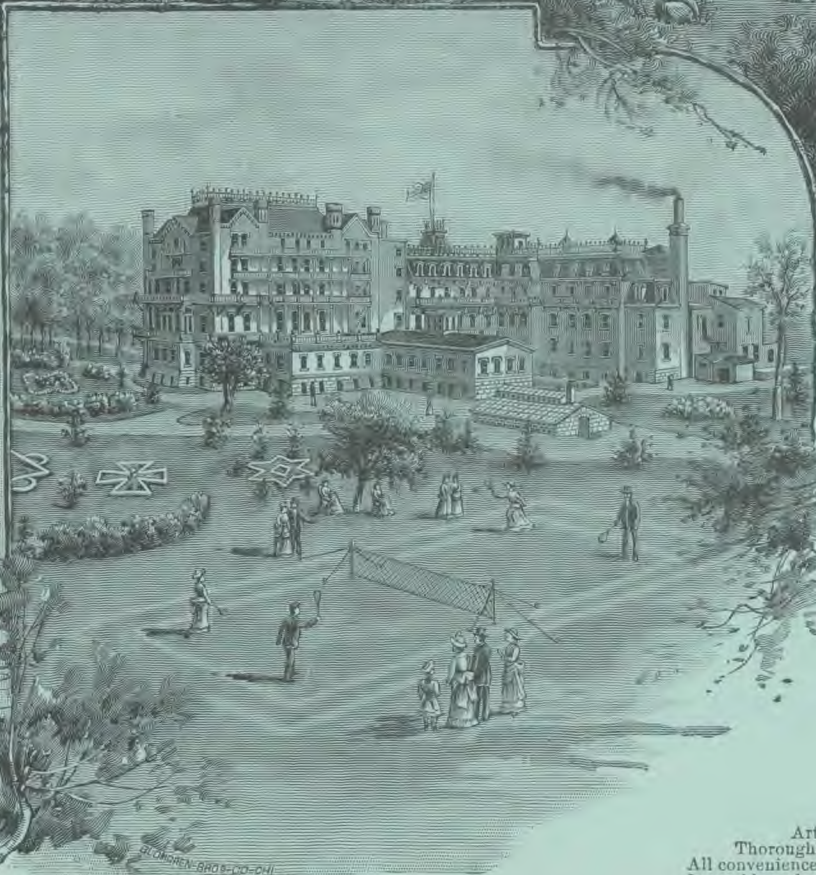
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