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THE INFLUENCE OF SUNSHINE.

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SUNSHINE is the mightiest thing in the world. Scientists have advanced the idea that it is really the sunshine that turns the earth; that the impulse of the sun's rays striking upon the earth is the cause of its rotation upon its axis. At any rate it is certain that sunshine is the motive power which sets in operation nearly all the forces of life, as well as many of the physical processes which are continually going on upon the face of the earth.

It is the sunshine that enables the little seed to sprout and germinate in the earth, and send up its stem into the air and its rootlets into the soil, gathering from the air and the soil the elements out of which it builds its trunk, its flowers, its leaves, and its fruit. The sun shining upon the leaves of the plant sets up a process of digestion similar to that which takes place in the human stomach — a process by which carbonic acid gas is taken in, and the carbon organized into woody structures, into starch and sugar, and the various elements which compose our foods.

It is the influence of the sunshine, penetrating the earth down to the rootlets of the trees, during the latter part of winter and the spring, that sets going the operation in the roots of the maple-trees by which is manufactured a ferment which digests the starch into the sugar which the farmer steals as it circulates upward into the trunk of the tree.

Now sunshine in this way becomes the source of all food for animals as well as plants. If you visit the greenhouse, you will notice that the gardener goes about among the flowers from time to time, moving the plants and turning them toward the sunlight; you will observe that the plants turn their faces toward the glass so as to catch as much of the vitalizing influence of the sunshine as possible. The sunflower follows the sun over the arch of heaven all the day long, and catches its last rays at night. Indeed, the behavior of some flowers in reference to the sun is so precise that they constitute a floral clock, and it is possible by looking at the face of the plant to tell exactly what time of day it is.

A plant grown in a dark cellar has not a particle of color, and the same principle applies to animals. Many years ago, an exploring party in the Mammoth Cave in Kentucky found swimming about in the water some peculiar fish that were absolutely without color, — and not only that, but they had only rudimentary eyes. Born in the darkness, living all their lives in darkness, they had no use for eyes, and so they gradually lost them. Human beings in like manner are absolutely dependent upon the sunlight for eyes and many other faculties, — the functions of the skin, for instance. The skin is really a great eye, the eye being simply

a development of the sense of touch. In some of the lower grades of existence the nerves of the skin are so delicately wrought and so highly developed that the whole skin can see. The polyp folds its arms in the darkness, or when the sun goes under a cloud, and spreads them out and begins active life again only when the sun comes out. Most animals go to sleep at night,— although there are animals that prowl about at that time to prey upon those that are asleep. During the day, as a rule, the animal seeks its food upon the face of the earth or digs it from beneath the surface, or picks it from the branches of trees; and during the night, while he is asleep, his food is organized into tissue.

It is the sunshine that paints the flower with scarlet, blue, and various other colors. These colors are simply a few extracts from the sunlight; for the sunbeams have all the colors in them; it is from this source also that the green leaf gets its color. In the same manner the cells of the skin are stimulated by the sunshine to make pigment, or coloring-matter, and thus the skin is said to be "tanned" by exposure to the sunlight. Freckles are caused by an unequal distribution of this coloring-matter, or pigment. This pigment does not come from the wind; it is not painted on, but is manufactured by the living, active cells in the skin, through the action of the sunlight. So the cells which make the muscles, nerves, etc.,— those which make bile in the liver, and in fact all the cells,—have their activity quickened under the influence of sunshine. Just as the little polyp is awakened by the sunshine, so the little cells of the skin and of the rest of the body are awakened by its influence.

Another interesting thing about sunshine is that it not only develops and stimulates human life, and animal and vegetable life, but it is destructive of parasitic life. There is one class of plants that do not flourish in sunshine,— the fungi, mushrooms, etc., which grow in the shade; they love the darkness, and grow under leaves, logs, and stones. You have observed that where a large tree overhangs the roof of a house or barn, a great mass of moss and other fungi is very apt to be found growing on the roof in the shadow of the tree. Mildew and mold are found on garments which have been hidden away in a dark closet. Molds grow on the damp walls of a dark cellar and on the under side of a board lying on moist ground. These are parasites which attack to destroy — and there are parasites which attack human beings.

All those germs which are fatal to human beings are destroyed by the sunshine. These germs get into the body, where they are hidden from the sunshine, and then attack us; but they cannot live in the sunlight. If we spend a large part of the time out of doors, where the sun can shine upon us and through us, the germs cannot flourish. The sunshine illuminates our bodies just as the whole hand is illuminated by the electric light. When we stand out in the clear blaze of the sunshine, there is not a corner of the body that is not penetrated by it.

There is another kind of sunshine, — a mental and moral sunshine, — which is of even greater value than natural sunshine. A person may live in the sunshine and still be a poor hypochondriac. Cheerfulness is one of the most potent influences toward the acquirement and preservation of health. Some people are worth their weight in gold because they keep a pleasant countenance and have a cheerful word, no matter now they feel. Such people sometimes furnish sunshine for a whole neighborhood. We have all known instances in which a whole community was stricken with sadness because

some good old mother, or perhaps some kind-hearted banker or business man, who had been a sort of helpmeet for everybody who was in trouble, died or moved away. People say, "How in the world are we going to get along now?" They have been in the habit of putting all their burdens upon this one sunny soul that was able to bear it all, and they are as children who have lost kind and loving parents.

Associate with people that are sunny, unless you yourself have the mental and moral power to manufacture sunshine for other people as well as for yourself. We should make a business of cultivating sunshine and good cheer. Suppose some one comes in with the lines of his face all drawn down; the faces of others naturally begin to lengthen, the eyelids to droop — a dark shadow is cast over all in the room. On the other hand, let a person come in with a face of sunshine and with cheerfulness sparkling in his countenance, and every expression of the face exhibiting good cheer and sunshine,— what a mental and moral uplifting power he is! How he brightens up every one! Even if we have some pains and sorrows, we can forget them under that influence, because the sunshine strikes into our hearts. When a person enters a room with this kind of sunshine on his face, it is reflected in other faces. It is like being in a room with mirrors and electric lights,— each mirror reflects the light. So, if every one wears a sunny face, his sunshine is reflected back and forth, and this sunshine grows and develops until, in the gloomiest kind of a day, we may have an atmosphere illuminated with mental and moral sunshine wherever we may be. As the flowers of summer and the fruits of autumn are nature's generous response to the influences of the genial and potent sunshine, so a cheerful sunniness of disposition bears fruit in the good cheer and character elevation of those about us.

JUNE STUDIES.

WHEN June has set in the leafy trees
Her bird-tunes all a-ringing,
Wherever a blossom nods in the breeze
The good, contented, cheerful bees
Are found at work and singing.

Ah, the wise little bees! they know how to live,
Each one at peace with its neighbor;
For though they dwell in a narrow hive,
They never seem too thick to thrive,
Nor so many they spoil their labor.

And well may they sing a pleasant tune,
Since their life has such completeness;
Their hay is made in the sun of June
And every moon is a honeymoon,
And each home a home of sweetness.

The golden belts they wear each day
Are lighter than belts of money;
And making work as pleasant as play,
The stings of life they give away,
And only keep the honey.

— *Phœbe Cary*

NOTES ON MEXICO.

Climate and Foods.

PEOPLE travel far across the ocean to visit Egypt, but we have an Egypt, so to speak, near us; for Mexico is a very old country, and has much that is closely allied to Egypt.

The mountain chains that form the backbone of the western continent rise from the low coast-line on either side by gradations to an immense central plateau guarded by great mountain ranges, and support some of the highest peaks upon the continent. The seaward slope of the country from the base of the mountain ranges is hot, and not altogether healthful. Through the hot season the country is arid, and during the rains the lowlands are submerged. The plains in the north are clothed with coarse grass, upon which the cattle feed; but about the lakes and streams, trees and tropical plants make oases in the arid country, even during the dry season. In these lower coast-lands the vegetation is tropical, and the fruits of the hot zone are produced in abundance. These plains are called by the natives the *tierra caliente*, or hot country. They rise gradually from the seaboard to about two thousand feet, where "the hills set their feet on them, and vegetation radically changes." Here the climate is cooler and the vegetation more profuse, mingling that of the tropics with the productions of the temperate zone. Insects are less annoying; the diseases of the coast are not present; fevers seldom molest the inhabitants except from local causes; and nature is lavish in her gifts.

A SCENE IN MEXICO.

In no country in the world can one pass so rapidly from zone to zone,—from the blazing shores of the heated tropics to the region of perpetual winter; from the land of the palm and vine to that of the pine and lichen,—for in twenty hours this can be accomplished, and "the traveler may ascend a snow peak with the sands of the shore still upon his shoes," the altitude

La Viga Canal.

La Viga Canal, near City Market.

Street Scene, Mexico.

Aguas Calientas — Mexicans Washing.

thus conferring all the favors resulting from change of country in other lands.

On one of these plateaux, seven thousand feet above the level of the sea, is situated the City of Mexico. Three mountain ranges extend about it, so that it is in a sort of valley, known as the valley of Mexico. The climate is delightful, always cool, but never too cool; the air is exhilarating, pure, and dry, but not too dry. There is scarcely a day in the year in which the sky is wholly covered; the sun shines most of the time,—a tropical sun with a temperate atmosphere. The variation in temperature is very slight, ranging from 65° to 85° F. The nights are always cool, even in the hottest portions of the year.

In the valley of Mexico, which is about sixty miles long by thirty wide, lie six lakes. Long ago, when the Aztecs were driven off the mainland, they built the City of Mexico on an island in one of these lakes,—Lake Tezcoco. This, with lakes Chalco and Xochimilco, are the largest of the six lakes, and lie nearest to the city. Driven from the more usual means of cultivating the soil, it does not appear strange that these people should have constructed the famous floating gardens which are situated in these various lakes, and have given to Mexico the name of the "Venice of the Western World."

It is said that the foundations of these gardens in the lakes are free from the bottom, and that the patches of earth can be moved from place to place; though, as the depth of soil increases, they become stationary, or at least only rise and fall with the varying height of the waters. The water in the lakes is not very deep, and some of the gardens are held in place by long willow poles driven through them into the bottom of the lake. From time to time the bottoms of the lakes (which receive the sewage of the City of Mexico) are dredged, and the mud poured upon these floating islands, thus adding greatly to their fertility.

The spaces between these island gardens are kept open by the government inspectors, to form canals or waterways, which are all the way from one to two hundred feet long, and from twenty to a hundred feet in width proportionately. Through these waterways the gardener passes with his boat, loaded with the products of his garden for market. The lakes are connected by canals, bordered with marshy lands. The principal of the canals leading from the city to the gardens is named La Viga. These canals are always crowded with the boats of market-men or of pleasure seekers, and present a scene of novelty and interest to the visitor.

From the canals to the markets of the City of Mexico is a natural transition, since it is by the former that a great share of the produce is brought into the city. As nearly all sorts of crops can be made to grow at all seasons of the year in the climate of Mexico, there is never any lack of things to sell in the market.

Sunday is the great market-day in Mexico, and the principal market-place, or the "Mercado," as the Mexicans call it, is a most stirring place, especially in the morning. Squatted thickly over the pavement, in rather promiscuous order, under rude umbrellas of matting or more permanent roofs supported by stone pillars, the natives sit with their wares spread around them, regardless of the convenience of customers in getting about. Here is a heap of bananas, and there a basket of eggs—Indians from the country with baskets of vegetables or coops of struggling chickens on their backs, or trays of fruit on their heads, jostling in and out of the crowd; and babies by the score. There are quantities of the fruits peculiar to the country; such as sweet lemons, yellow and brown sapotes,—a luscious fruit

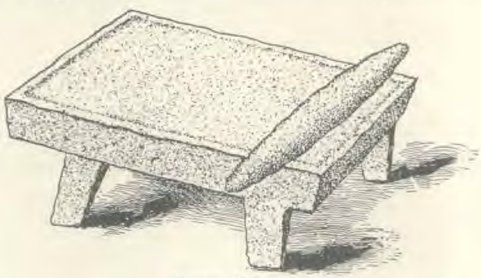
closely resembling a delicate custard; melon sapotes, which are almost identical in appearance with a large muskmelon, but grow on trees instead of vines; chicos, a delicately flavored fruit; guavas, the fruit of the cactus; aguacates, — an acid fruit from which is prepared a drink resembling red wine in appearance, with the flavor of lemonade; and a vast variety of other products of the garden, orchard, and forest, too numerous for anybody but a native Mexican marketman to enumerate.

It is no easy task on a market-day to pick one's way through the motley throng, all eager to sell something; from all sides hands thrust fairly into one's face exhibiting specimens, the virtues of which are shouted in stentorian tones, each trying to outdo the others in an evident belief that he can make a sale if he can only make noise enough.

Fruit of the finest quality is wonderfully cheap and abundant: the finest of oranges, sweet and luscious, one-half cent each; bananas sixty cents a hundred; and other tropical fruits proportionately cheap. One can fill a half-bushel basket with the finest specimens for a few *reals* (a real is equivalent to six cents in American money), and will then find a porter ready to carry it half a mile to his house or stopping-place for two *centavos* (equal to one cent in American money).

Flowers bloom in Mexico the year around in great variety and profusion. The Mexicans are very fond of them, and display considerable taste in arranging them. Their beauty and fragrance as displayed in the market do much to compensate for other less agreeable sights and odors.

The Mexicans when first visited by the Spaniards were practically vegetarians. Their chief article of diet was corn, — as it is at the present day. The corn is prepared in two ways; it is ground and made into cakes, and it is used in the form of gruel, boiled for a long time. The Mexican bread is the *tortilla*, and very good bread it is, too. It is made from corn, which is prepared by soaking in lime-water till the hull can be separated from it, and then pounded and rolled upon the *metate*, a long, flat, or slightly hollowed stone, till reduced to a fine paste. The stone with which the



Stone Metate.

work is done, called the *metlapil*, is something like an American rolling-pin. The paste is worked into a stiff dough. The cook takes a little of this dough in her hands and makes it into a round mass. Then she begins to pat it, and with a little whirl tosses it to the other hand; and so the cake goes back and forth, from one hand to the other, with every now and then a deft touch in addition to the patting, until it is worked down to a very thin cake somewhat larger than an ordinary griddle-cake, and hardly thicker than a knife blade. Then it is tossed upon a hot sheet of iron or tin and quickly baked, but is not allowed to brown. These cakes are very sweet and wholesome, especially when served hot. One cent will buy a dozen of these tortillas, or corn-cakes, in the market.

Black beans, or *frijoles*, constitute another very common article of diet, especially among the lower classes of the Mexicans. These are made hot with pepper, and seasoned with any kind of grease that the cook can get hold of. Indeed, peppers enter very largely into

almost every native Mexican dish ; and it is related on good authority that in one

MEXICAN COOKSTOVE.

locality the railroad employees had to guard the grease they used for their car-wheels, so great was it in demand among the laborers as a seasoning for their bean stews.

Tortillas sometimes serve the double purpose of bread and dish. If the native does not happen to have a better convenience, he spreads his beans upon one, and with another rolled up for a spoon he scoops up the frijoles. To finish, he eats his spoon and plate, and has no dishes to wash.

As the diet among the common people is so simple, cooking is naturally reduced to its lowest terms. A mound of earth or clay, perhaps a foot high and two or three feet in diameter, depressed in the center, serves as the cooking-range. The cooking utensils are of common unglazed earthenware. A simpler arrangement still is the cooking in the open air, which one may see in operation almost anywhere along the streets about sundown or in the early morning, even in the largest cities, especially in and about the market-places. Even among the better classes the stove or range is simply a wall or bank of solid adobe, built up against the side of the kitchen. There is no chimney and no stovepipe. There is a hole in the top and a hole in the side communicating with it. Under the hole in the top is built a charcoal fire, and by means of the hole in the side the cook or her assistant blows the fire to keep it alive. Fans for this purpose are sold on the street for a penny apiece. The smoke is supposed to escape through a hole in the roof over the range. The writer saw just such a stove as the one represented in one of the accompanying illustrations at the hacienda of a land owner said to be worth fifteen or twenty million dollars.

Public water-works exist in Mexico only in a few of the large cities, and there the water system is not introduced except in public places, public squares, and the better class of houses. The poorer classes are supplied with water by venders who go from house to house with large earthen jars filled with water, which are usually suspended from the ends of a heavy strap

A MEXICAN KITCHEN.

passed across the shoulders or strapped to the back, or, in some instances, especially by the women, carried on the head; and, occasionally, one more enterprising than his fellows may be seen with a rude sort of wheelbarrow. The water is sold at the rate of about one cent a gallon. This price seems small; but when it is remembered that laboring men work hard the whole day for twelve and a half cents, it will readily become apparent that water is, for the poor, rather an expensive article; and it will not be so much a matter of wonder that native Mexicans are frequently met with in the cities who have not allowed themselves the luxury of a bath for many years. The washing of clothes is chiefly done at the lakeside, river, or a ditch through which a stream of water is made to run. For a washboard the laundress has a large, flat stone tilted against the bank, on which she rubs and beats the clothes, as do many of the washerwomen of Southern Europe.

(*To be continued.*)

PRACTICAL HYDROTHERAPY.

The Sitz Bath, Foot Bath, and Leg Bath.

BY J. H. KELLOGG, M. D.

The Sitz Bath.— The sitz bath, also known as the hip bath, is one of the most useful baths employed in hydrotherapeutic treatment. Its utility was fully recognized by the early practitioners, who sometimes kept their patients so long in the bath that they became almost literally water-soaked, and were so numb from the long-continued application of cold water as to lose almost all external sensibility.

FIG. 1.

For this bath a common tub may be used, by placing a support under one edge to elevate it two or three inches (Fig. 1); but it is better to use a tub made for the purpose, which should have the back raised eight or ten inches higher than the front, to support the back, the sides sloping gradually so as to support the arms of the bather. The bottom should be elevated two or three inches. The depth in front should be about the same as that of a common wash-tub (Fig. 1). Fig. 2 shows a late style of porcelain sitz-bath tub.

Enough water is required to cover the hips and extend a little way up the abdomen; four to six gallons will suffice. Any temperature may be employed which is best suited to the condition of the patient. The hips and trunk should be well rubbed during the bath by the patient or an attendant. The patient should be covered with a sheet or blanket.

The duration of the bath will vary according to circumstances. A short cool bath is tonic in its effects, like all short cool applications; a more prolonged one is a powerful sedative. The hot sitz is very exciting in its effects if long continued. The warm sitz is relaxing.

A very good plan for administering this treatment, and one which will be applicable to most cases, is this: Begin the bath at 92° or 93° F. If a thermometer is not at hand, pour into the bath tub three gallons of fresh well or spring water, and then add one gallon of boiling water. This will give the desired temperature. After the patient has been in the bath a sufficient length of time, cool it to 85°, which may be done by adding a gallon of cold water. Continue the bath five minutes longer, then administer a pail douche or spray, at about 85°, and wipe dry.

The warm and the tepid sitz baths are the ones most frequently used. The hot bath is used to induce perspiration, to increase the action of the skin, and to relieve internal organs of congestion. The increased action of the skin thus excited is an aid in eliminating waste matter from the system, and is useful in cases of kidney disease, inactivity of the liver, jaundice, and at the outset of all acute disorders.

To give a hot sitz bath properly, the room in which it is given should be at a temperature of about 75° F., never above 80°. If the patient is quite ill or feeble, prepare the bath and the room first, then make the patient ready by removing the clothing and wrapping him in a blanket. Wet the head and face in cool water, and give a hot foot bath for a minute or two before putting the patient into the sitz bath. It is always important to have the feet warm before undertaking any kind of treatment. When all is ready, assist the patient into the bath, keeping the feet in the foot bath. If it is desired to induce profuse perspiration, let the patient drink hot water, and keep the tub and patient well covered with blankets.

FIG. 2.

A patient should always be watched with great care when in a hot sitz bath, lest he faint from the great amount of blood drawn from the brain to the pelvis and lower extremities. If the patient is weak, it is best to limit the sitz to from five to eight minutes; then if it is desirable to prolong the sweating, have a warm blanket on the bed ready to wrap him in. In that case the patient should be removed directly from the bath to the bed without cooling the bath or checking the perspiration, the body being simply wiped with a dry, warm towel. If it is not desired to continue the perspiration, after ten, fifteen, or twenty minutes in the hot bath the temperature of the water should be lowered five or ten degrees, and the patient sponged off, or have a few dipperfuls of cooler water poured over him.

The whole body should then be rubbed vigorously with a Turkish or some other rough towel, to keep the blood at the surface. The patient may then go to bed in a cool, well-ventilated room, and be covered lightly.

The hot sitz bath is a very refreshing treatment in the case of sore muscles due to overexertion, chilling, malaria, or any other cause. It also gives the same soothing and eliminating effects as result from the hot full bath, the Turkish bath, the vapor bath, or any other hot bath. The hot sitz bath is useful in all cases of pain in the pelvis, retention and suppression of urine, colic, and the cramping pains of cholera morbus, tenesmus, and dysentery. The symptoms of the last-named disease are often entirely relieved by a hot sitz bath, followed by a cool girdle and complete rest in bed. There is no better remedy for a cold than a hot sitz bath taken just before retiring. It should be continued until gentle perspiration is induced.

The warm sitz bath may be used to soothe and quiet the nervous system, to alleviate irritation due to hemorrhoids or external chafing, and to relieve the dragging, uncomfortable feeling so often experienced by women afflicted with chronic pelvic congestion, or, in fact, any condition of nervous excitation. The tired housewife, or any of the world's exhausted workers, suffering from want of nerve energy, and unable to get the needed sleep by which to recuperate the excited nerves and brain, might often escape the narcotic habit formed by taking "harmless" sleeping potions to benumb the sensibilities and induce sleep, if they would use the warm sitz bath before retiring. With this simple treatment they would awake from natural sleep, rested and refreshed, and would escape all those languid, nauseated feelings and severe headaches which often become worse after taking the medicine than they were before.

The tepid sitz bath is a valuable measure in all cases of chronic pelvic congestion, torpidity of the bowels, weakness of the walls of the bladder, irritable bladder and urethra, incontinence of urine, and all nervous excitement of these organs. It is also useful in cases of chronic diarrhea, and in catarrhal discharges from the pelvic organs, as well as in various other chronic disorders due to the weakness and derangement of the circulation of these organs. The tepid bath may be more prolonged than either the hot or the warm bath, and should always be followed by brisk rubbing. If the patient is strong enough, he should take vigorous exercise afterward.

In cooling a sitz bath, care should be taken not to pour cold water on the patient; and in heating it up, the same caution should be observed with the hot water. The water should be poured slowly down the edge of the tub. If a cold bath is to be given, it is better to begin with tepid water and cool it off gradually; and with a hot bath, to begin with the warm temperature and raise it gradually.

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

The Foot Bath.—Any vessel sufficiently large to receive the feet, with water enough to cover them to the ankles, is suitable for this bath. The feet should be rubbed during the bath. If the water is cold, it should not be more than one fourth of an inch deep. Fig. 1 shows the foot-bath tub in position for use with the sitz bath, which it usually accompanies.

The alternate hot and cold foot bath is a very valuable remedy for cold feet, and is an excellent measure for chilblains. It

is given thus: Place the feet in hot water — 100° to 110° F. — two or three minutes. Then withdraw them and plunge

FIG. 3.

quickly into a bath of cold water, 60° or less. After two or three minutes, restore them to the hot bath. Thus alternate three or four times, and conclude by dipping the feet quickly into cold water and wiping dry. This bath produces a most powerful reaction.

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

The Leg Bath.—(Figs. 3 and 4.) For this bath a vessel deep enough to receive the limbs to the knees is required. The bath may be taken at any desired temperature, but it is usually employed somewhat cooler than baths that involve the trunk of the body.

It is a powerful derivative bath, and is found very useful in preventing wakefulness in nervous persons, and in relieving palpitation of the heart, headache, and cerebral congestion. We have found it of great service in the treatment of epileptic patients. It is especially applicable to chronic ulcers of the leg, swollen knees and ankles, varicose veins of the limbs, and limbs which have suffered by exposure to severe cold, also in menstrual pain. It gives relief in gout; and there is no danger of causing shifting of the disease from one part to the other by its use.

In removing local congestions, subduing local inflammations, allaying circumscribed pain, and restoring activity to inactive parts, local applications of water

FIG. 4.

give results which afford both physician and patient great satisfaction. Fig. 3 shows the tub in position, with a blanket thrown over the side to keep the limbs from coming in contact with the tub.

THE HEALTH VALUE OF RELAXATION.

In these days of nervous exhaustion the question uppermost in the minds of the people seems to be: How can I obtain rest without giving up business? But the human machinery is not so constructed that it can run for ten months of the year at high pressure, and, by resting two, be restored to a normal condition. It needs the daily rest,—the entire giving up of the trials of the day, a complete relaxation of the nervous system.

The business man says he has no time to rest. Cares are too pressing. Matters of importance must receive attention. But presently he finds himself incapable of concentrated thought; and insomnia, nervous prostration, possibly insanity, or even death, overtakes him. Who is to look after business now?

The mother burdened with her daily cares and duties denies herself the quiet hour each day,—possibly tired nature asserts her claims, and there is a season of enforced idleness. Who will look after the children and the household duties now? The day of reckoning has come. Nature's laws have been violated, and the penalty must be paid.

The teacher, wearied by school duties, carries all her troubles—and not imaginary ones by any means—home with her, worries far into the night, wondering how she can better control or help this one or that one, and so unfits herself for to-morrow's duties, thus little by little drawing upon her nervous force until it is exhausted, and then—leaves her work, a nervous wreck.

It is not the last sleepless night that causes the final breaking down. It is the time stolen from sleep perhaps away back in college days; perhaps in the early years of business, when the night work added a few dollars to the meager income; possibly the social evenings, too late prolonged, when business demanded early rising, and so nature was defrauded. The habit grows, and the system seems to become accustomed to it. We deceive ourselves, and think we need less sleep than formerly; but at last the limit of endurance is passed—sleep eludes us, and then follow months and years of enforced idleness.

Why are we becoming a nation of nervous dyspeptics?—for that seems to be quite universally acknowledged. Why are professional men continually dropping out of the ranks? Why do our boys and girls leave school pale and emaciated, broken down?—It is because of the utter disregard of the physical in the effort to cultivate the intellect. "A sound mind in a sound body" is the old Greek adage, and upon no other foundation than a sound body can we build successfully. We must seek to know the laws that govern the body, and obey them.

All through the day the nervous system is active—busy carrying messages to the hand as it communicates through it to the world—to the feet as they speed on errands of mercy or carry us through the daily round of petty cares—working for others or storing up knowledge to be used in future work—preparing for our life-work, or using the skill already gained.

If one's work be almost wholly mental, the nervous system may be rested by using the muscles in simple exercises that do not call for great brain effort. But if the work has been both muscular and mental, this will not suffice. Relaxation is necessary. Some people get relaxation in social intercourse, and can throw aside all care, and after a few hours spent with friends, retire rested—ready to sleep. Others, unable to do this, find themselves more exhausted than before; and for such people there is but one thing—a

voluntary relaxation of every muscle and nerve in the body; for the control that can yield control is the greatest control. . . . Some can do this at will, but not appreciating its value, they fail to make use of this remedial agent. Others must be taught it as they would be taught any new thing, and must practise until, at will, all tension can be removed.

We listen to beautiful music or a fine lecture; and every nerve is "strung up," and we suffer from the "letting down." We must learn to listen without nervous tension. Or, it may be something which seems to require effort on the part of the performer, and we unconsciously try to help,— a most useless expenditure of force on our part.

Thus we must learn to obtain control of every part of our bodies, so that in any act we may be called upon to perform, only the muscles needed will be brought into action.

What will cure will also prevent,— and prevention is always better than cure,— and for the student, the home-maker, the business man, the teacher, and all who are engaged in work that wears upon the nervous system, nothing has been given to the world to excel these relaxation exercises. When the tired feeling begins to creep on — or even better, before it comes — drop everything and for five minutes sit with head hanging and muscles relaxed. Then a little gentle exercise to arouse energy without exhaustion, and you are ready for work again. This may be done several times a day, and at night before retiring continued for half an hour. If the tired, exhausted feeling has not yet come to you, prevent it in this way. Give brain, nerve, muscle, perfect rest for a time each day. Better do this, no matter how busy, than to be obliged later on to take it all at one time. One learns to work more easily, and to accomplish more; and finally, with all friction and undue tension removed, work becomes a pleasure instead of a burden. Indeed, the conviction seems to be growing steadily stronger that the great need of the times is a letting-down, rather than a continual stirring-up — the equalizing of forces, rather than the undue development of parts. — *Dietetic and Hygienic Gazette.*

FLOWERS AS FOOD.

THE use of flowers for food was a novelty in our matter-of-fact country, under our so-called newer civilization, when Mrs. Cleveland took up the graceful custom of serving flowers in salads. But in truth this is but a small part of the use that can be made of flowers as food. In the Oriental countries, flower petals have been used from time immemorial as sweetmeats, and even as daily food. For instance, the mountains of the interior of India are crowded with forests of butter-trees, from the seeds of which exudes an oil which hardens like lard. The flowers abound with a limpid honey, which is made into sugar. The flower petals are preserved in this sugar, and make a nutritious article of food for thousands of people. They are also dried and crystallized, like violets and rose leaves. The butter-trees on the hills northwest of Calcutta, overlooking the plain of Monghey, number over one hundred thousand. During the famine of 1873, the succulent corollas of these flowers, which fall in March and April, saved thousands from starvation. At night the peacocks and jungle fowl feed on them, with the deer and bear; the squirrels, monkeys, and birds share the feast in the daytime with the women, who

gather them, as they do the mango crop, for preserving.

There is always a steady demand for the French candied flowers. Where the violets of Grasse, France, are grown, all the old and stale violets are sold to the manufacturers of confectionery. In Roumania violets, roses, and lime flowers are utilized largely for flavoring preserves of different kinds.

The most esteemed sherbet in Egypt is prepared by pounding violets and boiling them in sugar. This violet sherbet is of a green color, and is called the "Grand Signor's Sherbet." Capers are the flower-buds of a bramble-like plant which grows on walls and fences in Southern Europe. They are prepared simply by pickling the buds in vinegar. Most of the capers that supply the market come from Sicily, though they are largely cultivated in the south of France. It is estimated that two million pounds of them are collected annually in Europe. The edible part of ordinary garden nasturtium, prepared as a salad, is more familiar here. They have a delicious spicy taste. Primroses likewise are utilized for salad in Europe, and marigolds furnish an ingredient of soups and broths. The flowers of the Judas-tree are made into fritters, with butter added, or mixed with salads, or sometimes the flower-buds are pickled in vinegar. [These dishes are perhaps more curious than hygienic, but they are certainly highly interesting.]

Artichokes are immature flower heads, and cauliflowers are a sort of flower. Abutilon as an article of diet is rare in this country; in Brazil it is a common vegetable. The saffron of commerce is the dried stigmas of a species of crocus. From a remote period it has been highly prized for coloring and flavoring fluids. It is largely employed in India in this way.

In India the young flowers of the banana plant are eaten, and the flowers of a kind of sorrel, which have a pleasant acid taste, are made into tarts and jellies. The blossoms of the shaddock are used for flavoring sweetmeats in the same country.

The species of lily known to botanists as Thunbergi is one of the choicest delicacies of the Chinese kitchen. In China dried rosebuds are used as a condiment. Rosebuds boiled in sugar and made into a preserve are eaten by Arabian women. Rose petals are candied like violets, and so likewise are jasmines. The common yellow pond lilies make delightful preserves, and from them the Turks prepare a cooling drink. The flower petals of a species of custard apple, *Anona Senegalensis*, are used on the Niger for flavoring purposes. Every lover of cool and fragrant beverages knows the luxury of plunging the heated face into a bunch of fragrant green mint.—*New York Times.*

THE HIPPOCRATIC OATH.

A CORRESPONDENT of the *Medical Record* seeks information regarding the Hippocratic oath, taken by physicians upon graduation. He states that he has inquired as to the substance of this oath of many physicians, who have been unable to give him a satisfactory answer. It is highly probable that but few of even our best educated physicians ever knew the text of the oath they were taking. The following is a translation of the oath in full: —

"I swear by Apollo the physician, and Æsculapius, and Health, and All-heal, and all the gods and goddesses, that, according to my ability and judgment, I will keep this oath and this stipulation — to reckon him who taught me this art equally dear to me as my parents, to share my substance with him, and relieve his necessities if required; to look upon his offspring on the same footing as my own brothers, to teach them this art, if they should wish to learn it, without fee or stipulation; and by precept, lecture, and every mode of instruction, I will impart the knowledge of the art to my sons, and those of my teachers, and to disciples bound by stipulation and oath according to the law of medicine, but to none others. I will follow that system of regimen, according to my ability and judgment, that I consider for the benefit of my patients, and abstain from whatever is deleterious and mischievous. I will give no deadly medicine to any one, if asked, nor suggest any such council; and in like manner I will not give to a woman a pessary to produce abortion. With purity and with holiness I will pass my life and practise my art. I will not cut persons laboring under the stone, but will leave this to be done by men who are practitioners of this work. Into whatever houses I enter, I will go into them for the benefit of the sick, and will abstain from every voluntary act of mischief and corruption, and, further, from the seduction of females or males, of freemen and slaves. Whatever in connection with my professional practise, or not in connection with it, I see or hear in the life of men which ought not to be spoken of abroad, I will not divulge, as reckoning that all such should be kept secret. While I continue to keep this oath inviolate, may it be granted to me to enjoy life and the practise of the art, respected by all men, in all times. But, should I trespass and violate this oath, may the reverse be my lot."

Assertions of an Indian Prince. — A learned Indian prince, Thakore Sahib, of Gondal, is the author of a history of Aryan medical science, issued from the London press recently. According to an English account of this book, given in the Baltimore *Sun*, it advances some remarkable claims on behalf of Hindu science and civilization.

Prince Thakore asserts that the grandest discoveries of Western medical genius, such as vaccination, anesthesia, and antiseptic surgery, were all practised among the Hindus many centuries ago. He declares that in the "Ayur Veda," or "Science of Life," which is the most ancient of all Brahman books on medicine, nearly all the best modern methods of medical diagnosis, as well as of practical surgery, are fully set forth. The circulation of the blood, which we say was discovered by Harvey, is said to be fully set forth in this ancient volume.

Prince Thakore also cites historical evidence to show that cranial and abdominal surgical operations of the most difficult kind, such as we have supposed were never performed until within the last fifty years, were done a thousand years ago in the land of Buddha. He points to the record of the trephining of King Bhoja of Dhar, who lived about 977 A. D., to relieve him from severe pains in his head. The record clearly states that the king was rendered unconscious, his cranium opened, the cause of the trouble removed from the brain, the wound closed up, and his trouble completely cured. Jivaka, Buddha's own physician, performed similar operations.

Such claims tend to shake the self-esteem of Western people as the wisest and most highly inventive that have ever occupied the earth, and to cast a doubt upon their boast that they are "the heirs of all the ages in the foremost files of time." . . . Prince Thakore may possibly be claiming too much for the medical science of old Hindustan, but there is no doubt whatever that we are too prone to assume that Wisdom had no children worthy of her until we appeared upon the scene.

SANITATION AND HYGIENE IN INDIA.

We have been led to believe, through the general exemption of Europeans from the bubonic plague in India, that sanitation had taken great strides in that country, and so, viewed from one standpoint, it has; but in a letter to a late number of the London *Lancet*, a visitor in Bombay, who had some very lofty preconceived ideas of what had already been accomplished in hygienic living by English energy and intelligence, says that by no means are all the foul slums of ancient standing, and proceeds to describe some of the quarters that have grown up around recently established manufacturing industries. We are accustomed to think of the one-storied hut as the home of the Indian low-caste laborer; but the sky-scraping idea has penetrated the Oriental world to the extent that there are houses of six stories, with many "inside" dark rooms; and these houses are built on streets so narrow that the occupants can literally shake hands out of the windows, while the narrow passage that is called a "street" is used as the common receptacle of all wastes of whatever sort, which in the broiling heat are soon developed into a death-dealing mass.

But there is a ray of light in a small volume recently put forth by Dr. John Murdock, on "The Claims of Hygiene in School and University Education in India." He asks: "What knowledge is of most worth?" and avers that in their plans of education "that knowledge which conduces to personal well-being is postponed to that which brings applause. . . . A boy's drilling in Latin and Greek is insisted on, not because of their intrinsic value, but that he may have the education of a gentlemen."

He says that the education of the professors, who were graduates from Oxford or Cambridge, was "itself most defective in this respect, and they followed the lines laid down in their own training. Hence for about half a century in India literature and mathematics constituted nearly the sum total of the teaching in government colleges. . . . A man may become a master of arts in Madras and not know why an apple falls to the ground, where rain comes from, or what the sun means by disappearing occasionally at inconvenient times. . . . We do not wish to exalt physical science at the expense of other branches; but practically to ignore it is an evil, especially in India, where the native has never shown any curiosity about the material world. It is to him a world managed and mismanaged by gods and devils, and he is quite content to let it remain so. He is essentially superstitious, and his present education has little tendency to release him from that condition."

Dr. Murdock considers that not only is a knowledge of physical science needed to promote physical well-being, but of hygiene as well. He says: "As a rule, the people are totally ignorant of the true

causes of disease and how to deal with an epidemic. They are notoriously skeptical about the efficacy of European methods. The ways of their ancestors are the only proper ones to pursue, in their judgment."

When thousands of their neighbors fall victims to one epidemic or another, they charge the disaster to some offended deity, and strive to propitiate him by sacrifices and ceremonials, content in the thought that it is all they can do, without knowing that ordinary precautions would enable them to defy the enraged monster, and live long and happily. Some of the best sanitary rules are regarded as oppression. One of the Madras poets sings: —

"Sanitation is botheration
To the Tamil nation;"

and while in some provinces the study of hygiene has been introduced into the schools, the number is so small as to make but a pitiful showing on the great dark continent of sanitary ignorance. Dr. Murdock says that it is thought that out of four million pupils not more than five per cent. are taught hygiene. Physiology is optional in some schools, but teachers and pupils do not regard optional studies as of equal importance with compulsory ones. Therefore he pleads to have it made compulsory, "when the lead would be transmuted to gold, and students would learn the best means of promoting their own health."— *The Independent.*

Why Birds Go to the Arctic Regions. —The number of birds that go to the Arctic regions to breed is "vast beyond conception." They go, not by thousands, but by millions, to rear their young on the tundra. They are attracted there because nowhere else in the world does nature provide, at the same time and in the same place, "such a lavish prodigality of food." That the barren swamps of the tundra, beyond the Arctic circle, should yield a food supply so great as to tempt birds to make journeys of thousands of miles to rear their young, seems incredible.

The vegetation consists largely of cranberry, cloudberry, and crowberry bushes. Forced by the perpetual sunshine of the Arctic summer, these bear enormous crops of fruit. But the crop is not ripe until the latter part of the Arctic summer, and if the fruit-eating birds had to wait until that time, they would starve; for they arrive on the very day of the melting of the snow. But each year the snow descends on this immense crop of ripe food before the birds have had time to gather it. It is then preserved beneath the snow, perfectly fresh and pure, and the melting of the snow discloses the bushes with the unconsumed last year's crop hanging on them, or lying, ready to be eaten, on the ground. This frozen meal stretches across the breadth of Asia. It never decays, and is accessible the moment the snow melts. Ages have taught the birds that they have only to fly to the Arctic circle to find such a store of "crystallized foods" as will last them till the bushes are once more forced into bearing by the perpetual sunlight. — *The Outlook.*

How Worry Affects the Brain.— Modern science has brought to light nothing more curiously interesting than the fact that worry will kill. More remarkable still, it has been able to determine from recent discoveries, just how worry does kill.

It is believed by many scientists who have followed most carefully the growth of the science of brain diseases, that scores of the deaths set down to other causes are due to worry, and that alone.

The theory is a simple one,—so simple that any one can readily understand it. Briefly put, it amounts to this: Worry injures beyond repair certain cells of the brain; and the brain being the nutritive center of the body, the other organs become gradually injured, and when some disease of these organs, or a combination of them, arises, death finally ensues.

Thus does worry kill. Insidiously, like many another disease, it creeps upon the brain in the form of a single, constant, never-lost idea; and as the dropping of water over a period of years will wear a groove in a stone, so does worry gradually, imperceptibly, but no less surely destroy the brain-cells that lead all the rest,—that are, so to speak, the commanding officers of mental power, health, and motion.

Worry, to make the theory still stronger, is an irritant at certain points, which produces little harm if it comes at intervals or irregularly. Occasional worrying of the system the brain can cope with, but the iteration and reiteration of one idea of a disquieting sort the cells of the brain are not proof against. It is as if the skull were laid bare and the surface of the brain struck lightly with a hammer every few seconds, with mechanical precision, with never a sign of a let-up or the failure of a stroke. Just in this way does the annoying idea, the maddening thought that will not be done away with, strike or fall upon certain nerve-cells, never ceasing, and week by week diminishing the vitality of these delicate organisms that are so minute that they can only be seen under the microscope.—*Pharmaceutical Products.*

What Causes Thirst?—Thirst is simply a sensation by which a lack of fluids in the system is made known, and in a state of health it is a generally faithful indication of the wants of the body. Natural thirst, which must be distinguished from the thirst caused by stimulating foods and drinks or by fever, is first indicated by a particular dryness of the mouth and fauces, caused by a failure of the pharyngeal membrane to secrete a due amount of liquids; but if fluids were to be introduced directly into the stomach through a tube, and not by way of the fauces,—as has been done in some unusual cases,—the immediate absorption thereof would instantly allay the sense of thirst, from which it has been supposed that the sensation of thirst is in the nerves of the stomach, and that the throat sensation is a kind of reflex action. However, this theory cannot be fully accepted, thirst being a sensation caused by the general want which can be supplied through the blood-vessels, the rectum, or the skin, as well as through the stomach or throat. The exhalations from the lungs and skin, and the kidney and other secretions are effected principally at the expense of water in the blood, which must be restored to its normal quantity, or intense general suffering follows. A sudden loss of blood or a rapid drain on the vascular system, as in cholera or diabetes, also causes the intense sensation of thirst. The thirst of fever, on the other hand, is not caused by lack of fluids in the system, but by the dryness of the throat, mouth, and skin caused by the unnaturally high temperature of the blood.—*Chicago Inter-Ocean.*

The Appetite.—The word appetite in its original sense means "to strive after," "to long for," "to seek." In the sense in which we use it, it means a desire, a longing for food or for drink. It is an internal sensation which prompts us to seek for and take food. It is nature's method of warning us of the needs of

our bodies. Without an appetite no one would care to eat. Appetite and hunger are generally used synonymously, but hunger is more than appetite; it is imperious, but is allayed after eating. A good appetite is sometimes considered as a test of the state of the health, but it is not an invariable test; often those who are seriously ill have good appetites, as is the case with many consumptives and others, but a person with a poor appetite is certainly not in good health — there is something wrong with him.

What can be done to improve the appetite when it wanes? — The usual remedy is to *take* something, a tonic for instance. This is the old-fashioned way, and of course it is the easiest thing to advise or to do. In most cases, however, there are better ways. Often rest and sleep, together with fresh air, are the real remedies needed. Waiting for an appetite to come by going without a few meals, the breakfast, for instance, at the same time doing a little hard work, will generally bring on an appetite quickly. Drinking cold water is another remedy; this acts well in connection with abstinence from food. Overwork, when feeble, is often a cause of loss of appetite.

A change of food is another remedy. Sometimes the regimen has not been varied enough, and the system becomes over-burdened with one kind of material, while another kind is deficient. An entire change of food sometimes works wonders.

A change of scene, of thought and of environment are excellent means to restore a jaded love of food. Outdoor exercise, labor, seaside bathing — all these promote those changes in the body which make a demand for food imperative. These remedies are natural ones, and if rightly used, can do no harm. Of course it requires judgment to decide which ones are needed in each case; but if the normal instincts are heeded, they will often tell what to do better than the judgment, or even the skill of the physician. It is generally best to trust them. — *Journal of Hygiene.*

THE boring of artesian wells was first practised in Europe in the province of Artois, from which the name is derived.

About the Finger-Nails. — The philosophy of the finger-nails is a most interesting study, simple through it may appear.

It has been computed that the average growth of the finger-nail is one thirty-second of an inch per week, or a little more than an inch and a half in a year. The growth, however, depends to a great extent upon the rate of nutrition, and during periods of sickness it is undoubtedly retarded. It is understood to be faster in summer than in winter, and differs for different fingers, being most rapid in the middle finger, and slowest in the thumb and little finger.

According to the rate of growth agreed upon by eminent authorities, the average time taken for each finger-nail to grow its full length is about four and a half months; and at this rate a man of seventy years of age would have renewed his nails a hundred and eighty-six times.

Taking the length of each nail at half an inch, he would have grown seven feet nine inches of nail on each finger, and on all his fingers and thumbs an aggregate length of seventy-seven feet six inches.

It is interesting to watch the history of a case of disease as recorded upon the finger-nails. The patient's nails show a distinct ridge, the portion of the nail which has grown since the acute attack being much thinned out. The more acute the illness, the sharper will be the ridge. Extreme anxiety and mental depression have the same effect on the nails as physical disease.

If a person has broken his arm within eighteen months, the ridges on the nails of the hand of the affected arm may be seen, while they may be absent on the other hand. After an attack of acute rheumatism or typhoid fever, the nail will be cut down sharply. — *Sel.*

A New Cure for Bruises. — Instead of having recourse to applications of tincture of arnica, spirits of camphor, and to strong compression of the swelling, in the treatment of light bruises, Dr. Auger prefers the use of olive-oil, both in children and in adults. He applies the oil freely to the contused parts, and rubs the latter lightly with a rag, absorbent cotton, or with the fingers, and covers the bruise with a compress saturated with olive-oil. The author claims that this treatment gives immediate relief, and that the formation of a bloody protuberance is often prevented; while excoriations and superficial wounds, which may be present, heal very rapidly. — *Popular Science News.*

Dirty Water-Coolers. — The Medical Society of New York has adopted a report calling attention to the danger of drinking water from the average water-tank, as found in railway cars and other public places. Many cases of typhoid fever of mysterious origin, it is said, could be traced to the filthy water-tank, which has been filled with water and ice of doubtful purity, and refilled from day to day without cleansing. — *Public Health Journal.*

Sunshine for Health. — "Seek the sunlight" is the advice of all present-day hygienists. Patients on the sunny side of the hospital ward recover soonest. The person who always walks on the sunny side of the street outlives his shade-seeking brother by ten years. Sleep in rooms where the sun has shed his rays all day. Bask in the sun all you can. — *Popular Science News.*

Mr. Charles E. Westlake has asked and received permission of the Chicago city council to put up penny-in-the-slot drinking-fountains on the street corners of that city.

Infection of the Right Kind. — Is there anything, after all, quite so infectious as the good? There are times when one is inclined to say no — not even evil itself. In a Fifth avenue stage last winter the snow was blurring the windows, the passengers' toes were gradually freezing, and their good humor was already chilled to the bone. It would have been hardly possible for anybody to feel or look any more cross, disobliging, and generally unholidaylike than those passengers in that stage at that moment. Suddenly the door opened and a woman started to get in, or rather, *tried* to start to get in, but her many bundles, the little child she held under one arm, the slippery step, the swinging door, and above all, the whirring, stinging, blinding snow, made it well-nigh impossible. Again and again did the woman mount the step and almost effect an entrance, only to trip or stumble or fall back. At last, seized by a benevolent impulse as sudden as it was just then unaccountable, the man by the door snatched the biggest bundle from the woman's hand. It was a very little thing, but its example spread like wildfire. In an instant a woman had taken the little child, another man was helping the woman in, and yet another was crushing his high hat against the stage top in order that she might have a seat. Every passenger of them was smiling and gracious, and doing what he could to help the woman. You would n't have known them for the same glum,

cross, shivering lot of a few moments before. That the woman was poor and shabby did n't lessen their courtesy one mite. The whole atmosphere was warmed and sweetened just by that one small kind action of the first man by the door.— *The Sanitarian.*

Sincerity.— The origin of the word "sincerity" is profoundly interesting and suggestive. When Rome flourished, — when her fame was spread the world over, and the Tiber was lined with noble palaces built of choicest marble,— men vied with each other in the construction of their habitations. Skilful sculptors were in request, and immense sums of money were paid for elaborate workmanship. The workmen, however, were even then capable of practising deceitful tricks. If, for example, they accidentally chipped the edges of the marble, or if they discovered some conspicuous flaw, they would fill up the chink and supply the deficiency by means of prepared wax. For some time this deception would not be discovered; but when the weather tested the buildings, the heat or damp would disclose the wax. At length those who had determined on the erection of mansions introduced a binding clause into their contract, to the effect that the whole work from the first to the last was to be *sine cera;* that is, "without wax." Thus we obtain our word "sincerity." To be sincere is to avoid any attempt to mislead or misrepresent.— *Sel.*

The Safe Course.— An excellent reply was that once made by a Yankee pilot to the owner of a Mississippi River steamboat, says the *Youth's Companion* :—

The boat was at New Orleans, and the Yankee applied for the vacant post of pilot, saying that he could give satisfaction, provided they were "lookin' for a man about his size and build."

"Your size and build will do well enough," said the owner, surveying the lank form and rugged face of the applicant with some amusement, "but do you know about the river,— where the snags are, and so on?"

"Well, I 'm pretty well acquainted with the river," drawled the Yankee, with his eyes fixed on a stick he was whittling; "but when you come to talkin' about the snags, I don't know exactly where they are, I must say."

"Don't know where the snags are!" said the boat-owner, in a tone of disgust; "then how do you expect to get a position as pilot on this river?"

"Well, sir, said the Yankee, raising a pair of keen eyes from his whittling, and meeting his questioner's stern gaze with a whimsical smile, "I may not know just where the snags *are*, but you can depend upon me for knowin' where they *aint;* and that 's where I calculate to do my sailin'."

Conscious suffering — and there is no suffering that is not conscious — occupies a small place in the experience of mankind. The attacks of it are short and infrequent. How few of the years of a life-time are years of suffering! How many of the three hundred and sixty-five days in the year are suffering days! How few hours in the twenty-four that constitute a day are hours of suffering! The actual impressions of suffering are soon effaced. Physical pain is forgotten almost as soon as it is over. Hunger, thirst, and nakedness leave scarcely a trace on a healthy mind. The recuperative powers spring gaily to their task. The bare spots are covered over, the sore spots are healed. If one sense is taken away, the other becomes more acute; if one member perishes, the other members do double duty. The human organization teems with possible members which

crop out like branches from a living trunk. The element of suffering must duly keep its appointed place. It shall not trespass an inch on the domain of health and joy. If it assumes for a time huge dimensions, the opposite elements assume huge dimensions also, and the heavenly kindness is vindicated. — *Science Siftings.*

Danger in Towels. — The *Popular Science News* gives the following warning in regard to the use of public towels: —

"A case of infectious disease for which the physician could not in any way account, recently gave rise to an investigation as to the source of the infection. The doctor learned that in the same office where his patient was employed was a janitor who was suffering from the same disease. He dropped in at the office one day and secured a soiled towel, in which was found a flourishing colony of bacilli of the sort he was seeking. This was an incentive to further research, and the clean towels were examined. These were furnished by a company that supplied thousands of towels all over the city. Half a dozen were examined, with no results beyond a few harmless microbes, but later a very innocent-looking, clean white one was found to be a veritable hotbed of disease germs of the most horrible description. When the inquiry proceeded as to why this should be, it was found that very many towels are turned in at the laundry with scarcely an appearance of soil about them. These are sometimes merely run through the soapsuds, rinsed, dried, and mangled. In one case a profuse crop of pimples was traceable to the use of one of these towels when the body was heated and the face moist with perspiration.

"It is claimed by some medical men that skin diseases have increased largely in cities since the custom of supplying office towels from a general depot has come into use.

"A towel showing a very slight stain — not enough to cause the casual observer to think of investigating it — was the object of suspicion to a microscopist. The spot was cut out, and subjected to the culture process. As soon as it came in contact with moisture, the spot, which had been ironed down smooth and flat, swelled to considerable proportions, and was found to contain a large number of dangerous microbes."

This is certainly a matter demanding the attention of boards of health.

The Eye a Perfect Camera. — William George Gordon says in the *Ladies' Home Journal* for March: "The eye is a perfect photographer's camera. The retina is the dry plate upon which are focused all objects by means of the crystalline lens. The cavity behind this lens is the camera. The iris and pupil are the diaphragm. The eyelid is the drop-shutter. The draping of the optical dark-room is the only black membrane in the entire body. This miniature camera is self-focusing, self-loading, and self-developing, and takes millions of pictures every day, in colors, and enlarged to life size."

Mental Moods and Bodily Health. — The power of mental depression seriously to affect the body emphasizes the duty of parents and guardians to place those entrusted to their care under conditions favorable to the development of physical robustness. Everything about them should, as far as possible, be bright, cheerful, and elevating. Home should be the happiest and cheeriest of places. Children should be sent to bed with a smile and a blessing. Night should prove a season of real rest. The day should be inspiring, joyous, and helpful. The mind's powers should be developed with-

out strain. No tasks that tax the nerves to their utmost and that induce decided reaction should be imposed. The school-room ought to be a place of delight, not of aversion; of moderate competition, not of forced exertion; of salutary stimulus, not of brain-wearying exaction; of sunshine, not of gloominess. All through the formative period the associations should be joy inspiring. Care should be taken not to break the youthful spirit, but to train and culture the entire nature so as to realize to the fullest extent the old Roman ideal, "A sound mind in a sound body." — *The Presbyterian.*

Headache from Eye Strain.— Dr. S. Weir Mitchell presents the following conclusions as to the relation between headache and the eyes: —

"There are many headaches which are due directly to disorders of the refractive or accommodative apparatus of the eyes. In some instances the brain symptom is often the most prominent and sometimes the sole prominent symptom of the eye troubles, so that, while there may be no pain or sense of fatigue in the eye, the strain with which it is used may be interpreted solely by occipital or frontal headache. The long continuance of eye troubles may be the unsuspected source of insomnia, vertigo, nausea, and general failure of health. In many cases the eye trouble becomes suddenly mischievous, owing to some failure of the general health, or to increased sensitiveness of the brain from moral or mental causes."

Writer's Cramp.— Dr. Felshue states that writer's cramp and allied muscular affections may be induced by the use of too small a penholder. Many of the penholders in common use are too small to allow a firm grip to be taken, and the result is that the fingers close down tightly in an effort to hold the pen securely, and the long tension results in cramp. If those who write habitually will use a penholder three or four times as large as those generally employed, they will be surprised to see how much less tiresome it will be. A good way to enlarge the penholder is to take a bit of flexible india-rubber tubing, which can be had from any druggist, and place it on the holder. This both gives a larger stem and affords an agreeably soft surface, which does not need to be grasped tightly to keep it from slipping.

Promiscuous Use of Handkerchiefs. At a recent meeting of the Dublin Sanitary Association, the president, Dr. J. W. Moore, remarked upon the spread of coryza by the common use of pocket-handkerchiefs. One of the most usual maladies is "cold in the head," or, as it is technically called, "coryza." It is notoriously infectious, and the means of communication is the discharge from the nostrils. He was satisfied, from repeated observations, that this troublesome affection often spreads through a family of children, and even through an entire household, by the promiscuous use of pocket-handkerchiefs.

A little child comes to the nurse with the request, "Blow my nose." This is carelessly or thoughtlessly done with the parent's or attendant's pocket-handkerchief, which thus becomes infected, and spreads the disease. In other cases the soiled pocket-handkerchief is allowed to dry without disinfection, and the dried discharge from the diseased mucous membrane of the nose is thus diffused through the air, spreading the malady just as measles is spread. — *Popular Science News.*

WEALTH and good humor are to the human body what sunshine is to vegetation. — *Massillon.*

The Value of a Laugh.— It is said that every hearty laugh in which a man or woman indulges tends to prolong life, as it makes the blood move more rapidly, and gives a new and different stimulus to all the organs of the body from what is in force at other times. Therefore, perhaps the saying, "Laugh and grow fat," has a foundation in fact. No truer words were ever uttered than those lines of Ella Wheeler Wilcox's: —

"Laugh and the world laughs with you;
Weep and you weep alone."

The jolly, wholesome, happy-hearted people are those who have most friends and see the best that life holds out to them.— *Popular Science News.*

THE requirements of health and the style of female attire which custom enjoins are in direct antagonism to each other.— *Abba Gould Woolson.*

HEALTH and cheerfulness mutually beget each other.— *Addison.*

CRUEL TREATMENT OF DEFICIENT PUPILS.

UNDER this heading John Dalziel, of Plainfield, N. J., tells a most pathetic incident of a child who was considered incorrigibly stubborn and vicious by both parents and teachers, and was severely punished. The child would sometimes say that he saw an object placed in front of him, and again he would insist that he could not see it; and he had what was supposed to be a habit of twisting his face in a grotesque manner when told to look at an object. All these things were taken as certain evidence of his depravity.

The child was desirous of pleasing his teacher, and watched her so closely that he could occasionally name the object held up; this, however, only made his conduct at other times less tolerable. As a crucial test, the teacher would hold a pin before the boy's face, and upon his statement that he could not see anything, the point would be brought in contact with his nose, producing the cry, "It is a pin." Severe punishment followed this experiment.

Fortunately for the child, he became sick. An oculist, after examining him, stated that there was a defect in his sight, but the exact nature of it was not easily determined. After this the child was treated less severely; but all his endeavors to prove himself truthful were futile, and the poor little fellow pined away slowly and died, without adequate cause in the shape of physical disease.

After his death, an examination revealed the astonishing fact that the optical nerve was divided in such a way that it was impossible for the child to see an object placed directly in front of his face except by twisting his head and shutting one eye, but that he could see objects on either side of him. The remorse of his parents and teachers can readily be imagined.

This is but another instance of the wrong likely to be done children from a failure to understand their physical condition. It is most earnestly to be hoped that the movement to provide for the medical inspection of schools will soon make such injustice an impossibility.

Dr. G. Stanley Hall says: "A great danger in our schools arises from defects of health. Only a small percentage of school children have no traces of weakness in eyes, ears, or spine. Some scholars are thought to be dull merely because they are hard of hearing or are short-sighted."

DR. NANSEN ON STIMULANTS AND NARCOTICS.

[THE following paragraphs are quoted from Dr. Nansen's book, "The First Crossing of Greenland," pages 40, 41.]

For warm drink, which though not necessary, is undoubtedly a great comfort, we generally used chocolate in the morning and pea-soup in the evening. We also took tea and coffee . . . but as it [coffee] did not seem to suit us at this time of day [morning], it was finally tabooed altogether, till we had almost reached the west coast.

My experience, however, leads me to take a decided stand against the use of stimulants and narcotics of all kinds, from tea and coffee on the one hand, to tobacco and alcoholic drinks on the other. It must be a sound principle at all times that one should live in as natural and simple a way as possible, and especially must this be the case when the life is a life of severe exertion in an extremely cold climate. The idea one gains by stimulating the body and mind by artificial means betrays in my opinion not only ignorance of the simplest physiological laws, but also a want of experience, or, perhaps, a want of capacity to learn from experience by observation. It seems indeed quite simple and obvious that one can get nothing in this line without paying for it in one way or another, and that artificial stimulants, even if they had not the directly injurious effect which they undoubtedly have, can produce nothing but a temporary excitement followed by a corresponding reaction. Stimulants of this kind . . . bring practically no nutritive substance into the body, and the energy which one obtains in anticipation by their use at one moment must be paid for by a corresponding exhaustion at the next. It may, no doubt, be advanced that there are occasions when a momentary supply of energy is necessary, but to this I would answer that I cannot imagine such a state of things arising in the course of a protracted sledge-expedition, when regular and steady work is required.

It is often supposed that, even though spirits are not intended for daily use, they ought to be taken upon an expedition for medicinal purposes. I would readily acknowledge this if any one could show me a single case in which such a remedy is necessary; but until this is done I shall maintain that this pretext is not sufficient, and that the best course is to banish alcoholic drinks from the list of necessaries for an Arctic expedition.

Though tobacco is less destructive than alcohol, still, whether it is smoked or chewed, it has an extremely harmful effect upon men who are engaged in severe physical exertion, and not least so when the supply of food is not abundant. Tobacco has not only an injurious influence upon digestion, but it lessens the strength of the body and reduces capacity for endurance and tenacity of purpose. With regard to the complete prohibition of tobacco in Arctic work, there is one circumstance to be borne in mind which has not to be considered in connection with spirits, as habitual hard drinkers are scarcely likely to take part in these expeditions — the circumstance that most men are so accustomed to its use that they will keenly feel the want of it. For this reason it would probably be advisable not to make the change too suddenly, but to limit the use by degrees, and at the same time, perhaps, not to take excessive smokers and chewers of tobacco upon such expeditions at all.

Among us, four were smokers, Ravna and myself being the exceptions, but our supply of tobacco was very small. During the crossing only one pipe was allowed on Sundays and other special occasions.

A Contrast.— In Denmark the police take a drunken man to the station and place him under the care of a surgeon. When he recovers, they take him home in a cab, and then present their bill to the person in whose house the victim had taken his last drink.

In Turkey a drunken man is bastinadoed for the first, second, and third offense, after which he is considered "privileged." A privileged drunkard is led home, and is furnished with an account which he must settle forthwith.

In the United States a man may drink himself to death, and there is no inquisition for blood; or he may forfeit his liberty, and his wife and children suffer, and taxpayers meet the cost of his board in prison. The "trade" escapes, and not a scratch is made on the back of the license! — *Sel.*

The Coffee-Eating Habit.— "The coffee-eating habit is on the increase," said a well-known physician recently. "I have had a number of cases of the kind, and they are as difficult to cure as those arising from the opium habit. The trouble is more prevalent among young girls than any one else. They eat parched coffee without any definite object, just as they eat soapstone slate-pencils, but with much more disastrous results. The coffee-eater becomes weak and emaciated, the complexion muddy and sallow, the appetite poor, digestion is ruined, and the nerves are unstrung. Coffee gives a few minutes of exhilaration, followed by great weakness."

A Temperance Lecture. — A noted temperance lecturer once visited the shop of a hatter, and asked him to give something to "the cause." The shopman coldly replied that he had no interest in it, and then it was that the temperance man began to instruct him, after the Socratic method of question and answer.

"I am sorry to hear that," he said, "for it shows me that you are not acquainted with your own business."

"If you are more familiar with my business that I am," said the man, with some spirit, "I shall be happy to take lessons of you."

"Well," said the lecturer, "you deal in hats, and intend to make a little money on every hat you sell?"

"Yes."

"Whatever sends customers to your shop, and increases their ability to buy, promotes your interest, doesn't it?"

"Certainly."

"Whatever makes men content to wear old, worn-out hats does your craft an injury?"

"Yes."

"Well, sir, if you and I were to walk out along the wharves, and through the streets and lanes of this city, we should see scores of men wearing on their heads old, miserable, slouched hats which ought years ago to have been thrown into the fire. Now, why don't those men come at once and buy of you?"

"That is not a difficult question to answer," said the shopman. "They are too poor to buy hats."

"What has more influence than liquor in emptying their pockets, and not only that, but injuring their self-respect to such an extent that they are willing to wear old clothes?"

"Nothing," said the man, hastily. "Here is some money for your cause. I am beaten!" — *Sel.*

Cigarette Dealers Complain.— A new reform, and one sorely needed, has begun to attract attention in Brooklyn. The principals of several public schools, being profoundly convinced of the evil of

cigarette-smoking upon boys, have organized an Anti-Cigarette League, which they have persuaded large numbers of their boys to join. The organization is the simplest possible, its most elaborate feature being the pledge of abstinence, and the agreement to forfeit the league pin upon violation of the pledge. Every two weeks well-known gentlemen are invited to address the league, for the purpose of strengthening its purpose. Thus an honorable *esprit de corps* is created that has made the reform an undoubted success, and is doing much to check the growth of a vicious and dangerous habit. One sign of success at least is visible in the complaints of cigarette dealers that bicycles and anti-smoking leagues are ruining their business.— *Sel.*

"Look at the Beast."—A prominent lady in German-American society in St. Louis tells this anecdote of her husband: He was walking along one day in one of the principal streets of Paris, elegantly dressed, and attracted much attention. He was well accepted among the French people until he indulged in ornamenting the sidewalk by spitting upon it, which is no crime at all in the eyes of well-dressed American men, but two fashionably dressed women happened to see him, and one of them said so the crowd could hear her, "*Voilà le bête*" (Look at the beast). That cured him; he never expectorated on the sidewalk again.

Liquor-Drinking in Basutoland.—From Mr. Poultney Bigelow's account of his travels in Basutoland in *Harper's* we clip the following in regard to liquor-drinking there: —

"As I rode about with Mr. Lagden, and heard him recite some of his experiences in this country, the feeling irresistibly took possession of me that I had at last reached the one land where governing was easy and the people contented, where a white woman could walk from one end of it to the other with no care for her personal safety, and where the whole black population lived in harmony with their chiefs, their neighbors, and the paramount power represented by the flag of England. In all Basutoland is not a single mile of railway; not a single road; not a single mining-shaft; not a single drinking shop; not a single newspaper; not a single demagogue, anarchist, mechanical piano, or any of the other plagues which to-day make progress difficult if not dangerous. The negroes whom I met in the fields all seemed in a laughing mood, in spite of the fact that their crops had been very bad because of the locust plague; the people along the way all appeared cheerful in their salutations; the country had no tramps, no drunkards, no paupers, no politicians; and the little jail which I inspected at Maseru appeared to be there quite as a matter of form."

Life-Saving through Temperance.—A law has been passed by the New York legislature which reads as follows: "No person addicted to the use of intoxicating drink shall have charge of explosives, boiler, engine, or hoist, or be allowed in any part of a mine while under the influence of liquor." The *Journal of Hygiene* says that already the new rules have reduced the number of accidents to almost nothing in the department to which it relates.

THERE is a significant lesson in the show-window of a St. Louis druggist. The window is advertised as containing nothing but poisons. Among its contents are Paris green, arsenic, morphine, laudanum, face powder, playing-cards, cigarettes, and whisky.

A "Delicious" Beverage. — The latest use for old rags has just appeared. They are treated chemically, distilled, and converted into whisky. What a delicate drink they must make, forsooth!

NEAL DOW recently celebrated his ninety-third birthday at his beautiful old home in Portland, Me. The veteran prohibitionist is as much in touch with temperance work and workers as ever. He still retains the habits of his youth, and is up at five o'clock in the morning, both winter and summer.

Diabolical Facts.— Business shrewdness and financial ability are, unfortunately, not confined to the better class of merchants. At a recent meeting of the Liquor League of Ohio, one of the officers remarked that after a man was grown, and temperance habits formed, he seldom changed; and he therefore drew the conclusion that for the success of the liquor business missionary work must be done among boys. "Nickels expended in treats to the young now will return in dollars after the appetite has been formed." Even the habitual drinker must stand appalled before the frankness of statement of such diabolical facts.— *Youth's Companion.*

Liquor Law in Africa.— In 1883 the Orange Free State, South Africa, passed a new liquor law which has demonstrated beyond a doubt the evil effects of alcohol and the benefits to be derived from its non-use. While this law does not entirely prohibit the sale of liquor in the State, it greatly restricts it, and as a consequence the prisons are almost empty of criminals, and the jailors are turning to other occupations for a livelihood. The provisions of the law are given as follows in an article by Poultney Bigelow in *Harper's Magazine* for May: —

"In the first place, *no license* for the sale of liquor is granted except in towns where a magistrate is stationed; and nobody is allowed to sell without a license.

"Secondly, *nobody* is allowed to sell to colored men, or to any one under twenty-one years of age.

"Thirdly, no grocer or general storekeeper is allowed to combine the sale of liquor with the sale of other commodities; nor is any strong drink permitted on his premises even as a gift from him to a customer.

"In the fourth place, no unlicensed person is allowed to buy or import into the state more than two gallons of liquor without a special permit from the magistrate.

"Fifthly, the state sees to it that such liquor as is brought in shall be at least good liquor, and not the horrible stuff which has been blazing in the brains of the Johannesburg blacks."

Appropriate fines and imprisonment are affixed for violation of these rules.

The Cocaine Habit.— The use of cocaine as an intoxicant has developed so rapidly that the habit is already assuming alarming proportions. In one town in the East it is reported that so large a number of the inhabitants have become slaves to the habit that, in the opinion of an experienced physician, the future prosperity of the town is threatened. A Boston medical journal, in speaking of it, says: "The trouble arose from a preparation of cocaine and menthol, which a druggist in the town compounded about a year ago, and exploited as a remedy for asthma. So popular has this 'snuff' become that people are seen on the streets and in dark corners at public entertain-

ments, indulging their passion for the compound. According to the report, the druggists, although getting rich by the sale of the compound, are so bothered by 'well-known men and women' who ring them up at all hours of the night to get a supply, threatening to break into the store if their wants are not attended to, that they have become prime movers in an effort to check the evil habit. Large numbers of the people are apparently running into debt to provide themselves with this expensive drug."

In commenting upon this state of things the *Medical Record* says: —

"Making all allowances for reportorial exaggeration, we have no doubt that many people in all parts of the country are being innocently lured into this enslaving habit by the catarrh 'snuffs' and 'balms' so extensively advertised. Many of these do, of course, afford temporary relief, and they are therefore resorted to with each recurring attack of coryza, and are charitably recommended to friends. And so, imperceptibly, the victims come to rely upon the preparation for daily stimulation, and by the time that they have learned that it is the cocaine that helps them, they are already powerless to free themselves."

Drunkenness Among Women.—The *Medical Pioneer*, the official organ of the British Medical Temperance Association, is authority for the statement that drunkenness among women is in that country rapidly increasing, the death-rate from alcoholism during the year 1894, being more than double that in 1875.

It is argued that the licensing of groceries is responsible for much of the drunkenness among women, because they can obtain their supply of intoxicants at these stores without attracting attention, whereas they would be ashamed to obtain them from a public-house.

The results in the home of the mother's becoming addicted are thus strongly set forth by Wm. Carter, M. D., J. P., in the paper above mentioned: —

"Bad as it is when husband or son becomes a drunkard, the greatest depth of domestic degradation is sounded and the greatest degree of family misery reached when the mother herself has been enticed into intemperance. I believe it to be among the saddest social facts of our time that drunkenness among women is becoming more and more prevalent, and that existing legislation tends directly to foster it. For when from any cause the mother is tempted to indulge unduly in alcohol, she always does it secretly. She enters on a long course of conscious deceit, that by degrees blunts her moral sense, and paralyzes all force and freedom of will. Servants have to be bribed or cajoled secretly to minister to the degraded taste; and as the high-principled and incorruptible refuse to yield to what they know will injure their mistress, they have to be gotten rid of on one excuse or another, and those alone engaged or retained who will comply, and whose own delinquencies, in consideration of their compliance, have to be winked at. The husband has to be deceived, and all kinds of wretched devices and mean and miserable artifices adopted to prevent the suspicion of neighbors or even children being excited, till by-and-by an utter break-down of mind as well as body reveals too late the whole sad truth."

MRS. YOKUM, superintendent of schools of Dolores county, Colo., refused a teacher's certificate to an applicant because he smoked. She says a person who smokes is disqualified to teach in the public schools, because the teachers in that State are required to instruct the pupils against the use of tobacco.

THE PHYSICAL EDUCATION OF GIRLS.

In the physical education of children it is not sufficient to consult merely their present ease and well-being, but attention is equally due to whatever is calculated to promote the vigor and usefulness of their future lives by strengthening their systems, preserving their bodies in the free exercise of all their movements, and thus protecting them from the deleterious influences of those agents by which they are constantly surrounded.

Thoughout the whole animal kingdom the young are prompted by an instinctive impulse to almost constant exercise. Conformable to this imitation of nature, the infancy or childhood of man should be passed in those harmless gambols which exercise the limbs without requiring any minute direction from the head or the constant guidance of the nurse.

It is well known to physicians that when attempts are made in early youth to interfere with the natural movements and exercises of the body; when, from a false idea of improving the shape or giving grace to the carriage, children are confined to any particular position for a long period, they become restless and their muscles are apt to acquire habits of involuntary motion. Twitching of the features, gesticulations of the limbs, and even grave and permanent deformities may result from such unnatural restraint.

From exercise and the free use of pure air no child should be debarred. Upon these depend in a great measure the health, strength, and cheerfulness of youth, while they contribute essentially to the permanence of the same blessings during adult life. Error in this respect, it is true, is of occasional occurrence in the physical education of boys; but an overanxiety for delicacy of complexion in a daughter, or the apprehension that she may become coarse and ungraceful, has often been the means of debarring her from the enjoyment of either air or exercise to an extent sufficient to insure health and strength!

The bodily exercises of the two sexes ought, in fact, to be the same. As it is important to secure to both all the corporeal advantages which nature has formed them to enjoy, both should be permitted, without control, to partake of the same rational means of insuring a continued flow of health and cheerfulness to enable their systems to perform perfectly all the functions of life. Girls should not be confined to sedentary life within the precincts of the nursery, or at best, be permitted merely a short walk, veiled and defended from the sunshine and air. The unconstrained enjoyment of their limbs and muscles in the open air, without impediments to restrain the freedom of their movements, or an ever-watchful eye to curb the lively joy of their unclouded spirits, is as important to their health and well being as to that of their brothers.

The hope of securing a healthy, symmetrically developed body for a girl, with graceful form and movements, by confinement, lack of sun and exercise, is about as rational as would be the attempt to improve the beauty and vigor of our forest trees by transferring them to the greenhouse and extending their branches along an artificial framework.

The first occupation of the day for children should be out of doors, for the purpose of inhaling the morning air. Every person who notices this fact will be struck with the difference in the health and freshness of complexion and cheerfulness of feature exhibited by the child who has spent some time in outdoor exercise before its morning meal and task, and the one who passes immediately from its couch to the breakfast-table, and thence

to study. Children are generally fond of early rising when their natural activity of disposition has not been restricted.

As much of the day should be passed in the open air as the weather will permit, and as is compatible with those necessary vocations which call for attendance within doors. Nor are we inclined to limit this outdoor exercise in respect to girls to the season of summer alone. Though girl children, as generally educated, may not be able to bear the extremes of heat and cold as well as boys, yet by proper management they may be enabled to sustain with as little inconvenience the transitions of the seasons. An habitual use of the cold morning bath, when no circumstances are present to forbid its employment, while it contributes to the health of the system generally, is an effectual means of removing that delicacy of constitution which renders an exposure to cold alike disagreeable and prejudicial.—*J. Clarke Slay, M. D.*

To Europe with a Bicycle.—"As soon as I had mastered the modern wheel," says a writer in *Romance*,—"and it did not take me long,—I resolved once more to return to Europe and try to renew pleasurable recollections of my former visits. Then it was something of an effort to propel the clumsy velocipede, even upon the asphalt pavements—but with a light American wheel—what a change! I flew from place to place, as on the wings of the air. I revisited old haunts after twenty years of absence, to find them still as lovely as they had been, and with never a change to spoil the illusion. Travel was transformed. It was no longer a hot ride in a close and dusty carriage, but I went when and where my fancy directed, and I was the possessor of a new joy in the ravishing pleasures which my eyes were able to drink in all day long. The roads were simply like well-laid floors, and I loitered or pushed on as I pleased. I was alone, yet not lonely. Here and there I stopped to sketch, to take a snap shot with my kodak, or to get a bite of luncheon. Everywhere my wheel was an object of curiosity, and a passport to experiences which I shall never forget.

"I would sing a sort of pæan to the wheel, for it has changed my whole existence. I go and come from my office on it. It is my constant companion—a dumb friend for which I have conceived the same attachment one entertains for a good horse. And above all, it has made possible for me an occasional trip to Europe, which I could never take otherwise, and I have had no doctor's bill to pay since I have given up some of the extra work I used to do, and spend that time on a wheel. In one hour I can traverse from ten to twelve miles of park and riverside driveway. If I have only a half hour, I can round the park. The change, the air, the sense of freedom has brought a change over my whole life—and I owe it to the wheel.

"I did not keep an accurate record of the cost of my trip to Europe, but at the time made a fairly close estimate of it. I went by cattle steamer, and a most delightful time I had of it. The fare was a little poor, perhaps, but the company was delightful. The boat was large and roomy, and as steady as a rock. The total expense was $110 for the round trip. My expenses on shore averaged $2.50 a day. I was gone for two months and two days,—sixty-three days in all,—and including my passage, which consumed twenty-two days over and back, I did not spend over $225. I visited three different countries, fared well wherever I went; and I doubt whether anything could have enticed me to go anywhere else,

if I had had another month's absence offered me. I am for the wheel first, last, and always — and for making American roads as good as those of Europe. In my entire travels I had to dismount but once, — in a little English lane newly graveled."

Value of Physical Development.— Richard Harding Davis, speaking of a visit to Athens, gives the following enthusiastic tribute to physical culture as a means to moral as well as physical development: —

"Wait until you see the statues of the young athletes in the museum, and get a glimpse of the blue sky back of Mount Hymettus, and the moonlight some evening on the Acropolis, and you will feel that nothing counts for so much in this world as health and straight limbs, and tall marble pillars, and eyes trained to see only what is beautiful. Give people a love of beauty and a respect for health, and the result is going to be what they once had here, — the best art and the greatest writers and satirists and poets. The same audience that applauded Euripides and Sophocles in the open theater used to cross the road the same day to applaud the athletes who ran naked in the Olympian games, and gave them as great honor as they did the orators. I came here once on a walking tour with a young fellow who was not making as much of himself as he should have done; but he went away a changed man, and became a personage in the world, and you would never guess what it was that did it. He saw a statue of one of the Greek gods in the museum which showed certain muscles that he could not find on his own body, and he told me that he was going to train until they did show; and he stopped drinking and loafing to do it, and took to exercising and working; and by the time the muscles showed out clear and strong, he was so keen after life that he wanted to make the most of it, and, as I said, he has done it. That is what a respect for his own body did for him."

Athletic Bankruptcy.— One moral of the recent prize fight — and it is quite possible to pull a moral out of a pile of fertilizer — is that dissipation will count against a pugilist in this world as well as the world to come. It ruined John L. Sullivan as it is ruining James Corbett. The latter by previous fast living had so drawn upon his reserve vitality that, despite his recent thorough training and his apparent superb physical condition, he did not have the enduring powers of his smaller antagonist. Right living, without intermissions, has its physical as well as its moral value. Nature cannot be hoodwinked in these matters. When the supreme test comes, alcoholism and licentiousness dishonor the draft, and men like Sullivan, Corbett, and others of their destructive way of living, go into athletic bankruptcy.

It is for these practical reasons that employers of men in responsible positions are more and more coming into the insistence that their employees shall be sober men, free from the vices that impair body and brain, and reduce their capability, not only for the every-day routine, but also for those emergencies which every business enterprise at times encounters. — *Burlington Hawk-Eye.*

College Athletics.— A writer in the June *Lippincott's*, speaking of the changes that have taken place in college life, says: —

"The day for the pallid and bent student to be admired has passed; the day when the 'student's stoop' was considered a necessary accompaniment of intellectuality is gone; the 'brow sicklied

o'er with the pale cast of thought' is no longer sought after. The fashion of tan has come; it is realized that one will think, study, write, and do all kinds of mental work better if he is healthy. Red blood and sound nerves are necessary to sound thinking; so that students both in college and out are anxious to be and to seem robust.

"It used to be that when a college boy returned home, he was expected, by himself and by his family, to carry along the physical marks of hard study in the way of pallor, a stoop, and a general enervated condition; this was looked for, even if he had not fainted dead away in the midst of his speech on commencement day from the strain of prolonged work. All this has been changed; it is now realized that it is not worth while to wreck a student's health and send him out broken down, and incapable physically of taking up the work which he had hoped to do in later life. The test has been made, and it has been shown that the athletes are equally good students with the non-exercising men, and that many of them are better ones. It has not been shown that the grade of any athlete is lower than it would have been if there had been no such thing as a gymnasium. The mental work is better, it is done with more ease, with less drain on the vital forces, it is clearer and sounder, and what is learned remains longer in the memory. "The object of the college course is manifestly to educate, to develop the powers, and to prepare for manful and successful struggle with the duties of mature life. In order to do this well, the body has to be maintained in good working order, made as strong as possible, and rendered an obedient servant to the will. It is impressed upon the consciousness of the world that the old method of education ignored too much the just demands of the body. The colleges turned out, in many instances, good students who were physical wrecks. In order to remedy this evil, and maintain an equilibrium between the mind and the body, college athletics have come into existence, and have grown into one of the prominent features of modern university life."

Walking Up-stairs. — A physician, who declares that but very few people know how to walk up-stairs properly, gives these instructions: "Usually a person will tread on the ball of his foot in taking each step, springing himself up to the next step. This is very tiresome and wearing on the muscles, as it throws the entire suspended weight of the body on the muscles of the legs and feet. You should, in walking or climbing stairs, seek for the most equal distribution of the body's weight possible. In walking up-stairs your feet should be placed squarely down on the step, heel and all, and then the work should be performed slowly and deliberately. In this way there is no strain upon any particular muscle, but each one is doing its duty in a natural manner. The man who goes up-stairs with a spring is, you may be sure, no philosopher, or at least, his reasoning has not been directed to that subject."

He might well have gone a little further in the same line, and protested against the habit that so many persons have of bending over half double whenever they ascend a flight of stairs. In exertion of this kind, when the heart is naturally excited to more rapid action, it is desirable that the lungs should have full play. But the crouching position interferes with their action, the blood is imperfectly aërated, and there is trouble right away. Give the lungs a chance to do their work everywhere and at all times. — *Good Housekeeping.*

THE TREATMENT OF SCARLET FEVER.

BY KATE LINDSAY, M. D.

It is commonly the case in infectious diseases that there is a local center where the poisons are formed and from which they are absorbed in quantities sufficient to overwhelm the whole system. In severe cases of scarlet fever the throat is frequently this center. It is therefore very important that it be carefully treated from the onset of the disease.

As the patients ill from this disease are frequently children under five years of age, it is often a very difficult matter to treat the throat and nose thoroughly enough to keep them clean without injuring the patient from overexertion in resisting the nurse's efforts to do this work properly. Sometimes older children who have been badly trained also give a great deal of trouble in this way.

The resistance is usually made with the hands and feet; therefore if these members can be suitably restrained without undue force, it will be much easier to deal with the case. The usual method of having some one hold the hands and another the legs is very unsatisfactory, and often results in injury to the little patient from its efforts to escape. The writer has found that in cases where the child could not be restrained or treated any other way than by force, it was much more satisfactory to bind its hands and feet with a sheet put on like an ordinary pack, or in a very small child, in the form of a triangle. The child's strength should not, however, be wasted in futile attempts to give the treatment before it is put in the pack. Care should be taken to fasten the wrappings so thoroughly the first time that it cannot struggle out of them, also to adjust them so smoothly and evenly that no undue pressure will be made on any part. A strong sheet should be used.

If the child is over two years old, or particularly vigorous, lay the sheet on the bed and gently lift the little one onto it, talking pleasantly to it all the time. Do not scold, or draw the folds of the sheet with spiteful jerks, so as to scare the timid child or irritate and provoke to anger the obstinate one. Let it appear as if you were just wrapping the bedclothing around it. The writer has often been surprised to find how soon the child would cease to struggle when it was once bound up. Children are often needlessly frightened by having all the preparations for treatment made in their presence. If whatever is needed be gotten ready in another room, or, if this be impossible, at least behind a screen, the nurse will be surprised to see how much less the child is agitated.

The principal object in throat treatment in all acute forms of throat disease where there is a morbid secretion is to remove the foul matter; and simple solutions often do the work better than stronger and more irritating ones, which cause discomfort, and cannot be used of sufficient strength or quantity to kill the germs, or to cleanse away the morbid matter. One of the best solutions for cleansing the throat in either a scarlet fever or a diphtheria case is the normal saline solution, made by dissolving a teaspoonful of common salt in a pint of boiled, strained, or distilled water, the fluid being made to flow through the nostrils from a fountain syringe or douche-can into one nostril and out at the other. This will wash out the unhealthy secretions and remove a great many germs, and it is also very useful in stimulating the circulation and improving the nutrition of the parts, making

them better able to protect the body from invasion with germs and poisons. It is better to use the solution rather warm — 160° to 180° F. being about the proper temperature. The hot saline solution should be used in quantities of at least a quart or two at a time, unless the patient is very young or very weak, and even then a good deal can be used by letting the fluid run through the nose a few ounces at a time, and then allowing a short rest for a few moments before repeating it again.

The child, wrapped in a sheet as previously described, should be laid on its side on a rubber blanket or oilcloth so arranged as to carry the water off into a receptacle. This treatment may be repeated every three or four hours in severe cases, the nasal passages and throat being sprayed after the douche with a solution of hydrozone (one part in from six to twenty parts of water) or a saturated solution of boracic acid. When the child is old enough to open its mouth, and is not frightened at the spraying apparatus, the throat may be cleansed with the instrument directly through the mouth; but as it is often very hard to make a young child open its mouth, and as but a small portion of the surface of the throat can be reached in this way as compared with that reached through the nose, the douching process through the nose is usually a much more efficient method.

Outside applications may also be made to the throat, as hot poultices, or what is better still, hot fomentations. Often hot and cold used alternately will do better than either one alone. Cold may also be applied in the form of ice-bags or cool compresses. The inflammation from the throat may, if neglected, extend to the ears, and in many cases causes deafness more or less complete; or even death itself may result from further extension of the inflammation to the membranes of the brain. In other cases the glands of the neck become infected, swollen, inflamed, and sometimes suppurate. Often these discharge for a long time, and finally become infected with tubercular germs, which at last extend to the lungs, causing tuberculosis. These abscesses should be promptly opened and dressed antiseptically, as the longer they are left without opening after the pus forms, the more glands are likely to become infected, and the more difficult it will be to heal them after they are opened, because of the great amount of unhealthy tissue to be gotten rid of before they can heal.

As long as there is a discharging wound anywhere in the body, and especially when it is situated in the ears or glands of the neck, just so long will there be danger of tubercular infection. Thus it is of the utmost importance to prevent such infection by keeping the throat and nose well disinfected, that the poisons there generated be not absorbed, and involve deeper and more important organs. Many cases of deafness following an attack of scarlet fever might have been prevented by cleanliness; for it is not always the scarlet-fever germ which invades the ears, but often just the ordinary pus-forming microbes which go to work because the tissues are weakened from the specific poison they have had to contend with. Proper treatment at this critical time may save the hearing, deformity of the neck, and even life itself.

Whenever there is any evidence of sore ears, they should be given attention at once. If a physician is not at hand, proceed to give a warm ear douche, and apply either hot fomentations or cold compresses over it afterward — whichever seems to give most relief. In giving the ear douche, if a fountain syringe is used, it should not be hung too high, for the

force of the water may cause pain. It is sometimes very difficult to discover when inflammation begins in the ears in small children who cannot tell intelligently what ails them; and older patients are often delirious. Thus the nurse should be on the lookout for any symptom of earache. In such cases the child often bores its head in the pillows, and cries continuously, and pressure back of the ear causes pain.

(To be continued.)

Milk Infection the Cause of Summer Diarrhea in Children.— Thousands of children die from milk poisoning every year, the disorder being especially fatal among bottle-fed children. Milk is a very good medium for germs to grow in, and it is very easily infected. When the germs have once invaded the alimentary canal of the infant, it is very unsafe to give milk as long as they are present, for it will ferment under the action of the germs and produce poisons capable of causing the death of the child as quickly as a dose of arsenic. When the vomiting and purging which are usually the first symptoms of this disease begin, the stomach should if possible be washed out and a couple of teaspoonfuls of castor-oil given to move the bowels and free them of irritating poisons.

Enemas of hot water should be given every two or three hours, followed by an injection of a teacupful of thin boiled and strained starch water. All food should be withheld for from twelve to twenty-four hours, and even then milk should be avoided. Use in its place well-cooked barley or wheat-meal gruel strained. These gruels should be boiled in a double boiler four or five hours. This diet, with hot fomentations to the bowels every three hours, has saved many a little one's life. Even when the worst symptoms are relieved, caution should be observed about returning to a milk diet. The beaten white of an egg, mixed with boiled water, may be added to the gruels.

The nurse should be careful to wash and disinfect her hands after changing the child, especially before preparing its food. Disease germs are often present in the discharges from the bowels, and by carelessness may infect the food and drink of not only the baby but the other children of the family. K. L.

Reading Aloud in the Sick Room.— "With regard to reading aloud in the sick room," says Florence Nightingale, "my experience is that when the sick are too ill to read to themselves, they can seldom bear to be read to. Children, eye patients, and uneducated persons are exceptions, or where there is any mechanical difficulty in reading. People who like to be read to have generally not much the matter with them; while in fevers or where there is much irritability of the brain, the effort of listening to reading aloud often brings on delirium. I speak with great diffidence, because there is an almost universal impression that it is a kindness to the sick to read aloud to them."

A Training-School on Rails.— The Seaboard Air-line traversing the States of Virginia, North Carolina, South Carolina, and Georgia, is under progressive, practical, and liberal management. To assist those located along its line, it is to inaugurate a traveling industrial school, the object of the school being to teach the people how to can, preserve, and pickle; how to make fruit butter, jellies, jams, marmalade, cheese, etc., and to instruct in the manufacture of such things as can

be made on the farm without a great deal of expense. Such household conveniences will be shown as tend to improve the conditions of the home, make its surroundings more pleasant, and lessen the work of the housewife. — *New England Farmer.*

What a Trained Nurse Must Be. — "It takes an intelligent, refined woman with a strong will and good sound sense to make a good nurse," the superintendent of a large training-school writes in the April *Ladies' Home Journal.* "She must be able to command the respect of her patient. She must be sympathetic, orderly, dignified, and incapable of betraying alarm before her patient. She must be ready and quick to act in any emergency, but slow to assume authority that belongs to her superiors. She must be of a cheerful, hopeful nature. With these attributes, joined to the practical knowledge of arranging a sick room, preparing the invalid's bed, removing of bandages, the giving of medicines (as well as understanding their properties), a knowledge of cooking, and a desire to do her duty regardless of her surroundings or of any adverse criticism, she would be a model nurse. There is, of course, some theoretical training through text-books and lectures to be gone through, but without the other qualifications no woman can become a successful nurse."

To Keep Ice. — The use of ice in small quantities, frequently repeated, is very general in many diseases, but it is found difficult to keep it from melting, especially when in small blocks. To obtain this result, the ice should be put in a vessel covered with a plate, which vessel should be placed on a feather bed, and covered with a feather pillow or cushion; feathers being very bad conductors of heat. By this plan a few pounds of ice can be kept several days, even in summer heat. — *Popular Science News.*

THE Chicago *Times-Herald* is authority for the following: —

"Duke Charles Theodore, of Bavaria, brother of the empress of Austria, is a celebrated oculist. His wife, the duchess, and their daughter Marie devote the greater part of their time to nursing in the three hospitals under the duke's charge. They also assist him in operations. Both are skilled and trained nurses. They enter fully into the spirit of the work, and do all that they can to ease and comfort those who have been compelled to submit to the knife. Both women are at the hospital at seven o'clock every morning. They wear costumes of black, white collars and cuffs, and blue and white linen aprons."

BENEFICENT is the mission of the nurse.

THE diet of the convalescent should always be simple, though nutritious.

GENTLE firmness and quiet persuasion are the means by which the refractory patient may be made to yield to the will of the nurse.

IT is important that the patient's strength be husbanded at the beginning of his sickness, but it is unscientific to seek to accomplish this by forcing him to eat during the acute stages of a self-limited disease.

IN the management of intestinal colic the safest plan is to make use of enemata, since laxatives and cathartics increase the peristaltic action and aggravate the pain. The water employed should be hot as can be well borne, say 110° to 115° F., and the enema may be several times repeated, if necessary.

HYGIENE OF THE NURSERY.

Precautions Relating to the Feeding of Infants.

BY J. H. KELLOGG, M. D.

1. Too frequent feeding is a very common practise, and is one of the most active causes of colic and various other forms of indigestion in children. Many mothers wonder why children fail to gain in flesh, notwithstanding they have a voracious appetite, and eat nearly all the time. The simple reason is that the food taken is not digested and assimilated, on account of the weakened and disordered state of the digestive organs.

Frequent feeding at night is not only unnecessary, but exceedingly harmful. After the first three months, infants require no food at night. If they are properly educated upon the matter of diet from the start, they can be managed without any difficulty. To break a child of the habit of being fed in the night, a little warm water may be given in the nursing-bottle instead of food. This will often satisfy its cravings so that it will go to sleep.

2. Overfeeding is a much more frequent error than the opposite. Very frequently children are allowed to take too much at a time. This is the most common cause of vomiting in infants. Fortunately their stomachs are so constructed that the surplus of food may be easily expelled; but when this does not occur, very serious disorders of digestion often result. The child should be removed from the breast when its hunger has been satisfied, and should not be urged to take more.

3. The child should never be allowed to sleep at the breast, or with a nursing-bottle at its mouth.

4. The child should never be put to the breast to stop its crying. Children cry in consequence of disturbances of the stomach much oftener than from hunger. The child will often nurse as though hungry when the stomach is already full of undigested food, being induced to do so by the pain or discomfort which it suffers. Children often cry in consequence of the irritation of pins; but no matter whether any other cause for crying is found or not, the child should be nursed only at regular hours.

5. No other food but milk, except such fluids as are used to dilute cow's milk, should be used until after several teeth have made their appearance. As a general rule, bread and other farinaceous foods cannot be digested before the age of seven or eight months. Meat should never be given to children until they have acquired a sufficient number of teeth to masticate it thoroughly, and then should be allowed in only very small quantities once a day. Children are very much better off without meat. Convulsions are often due to its use.

6. Children should never be given sugar-teats, candies, sweetmeats, cheese, nor pastry. The habit many nurses have of feeding an infant sugar and water every hour or two during the first one or two days of its life, is a practise which cannot be condemned too strongly, and is the cause of colic and other disturbances. Catnip tea and similar decoctions used at this time are exceedingly harmful, not only disturbing the stomach and giving the child discomfort, but preventing the natural desire for food, and depriving the mother of the benefit to be derived from suckling the child. Placing the child early to the breast is one of the best means of preventing "gathered breast," and securing a plentiful supply of milk.

7. The practise that many people have of taking young children to the table and feeding them bits of almost everything on the table, cannot be too strongly discountenanced. It is one of the most prolific causes of digestive disturbance in children.

8. Menstruation and pregnancy, either of which is liable to occur during nursing, are likely to affect the child injuriously. As a rule, a woman should discontinue nursing upon the occurrence of pregnancy. Three lives may be injured by a neglect of this rule.

9. Special care must be taken in the warm season of the year, of children that have been weaned or raised on the bottle, to avoid feeding sour milk or that which has become slightly changed by standing. In very hot weather, milk sometimes begins to "turn" in a very short time. This is especially the case when milk pans or cans have not been cleansed as thoroughly as they should be. If the mother or nurse in charge of the infant would obtain "test-paper," which can be gotten at any drug-store, and always test the milk when there is any possibility of its being sour, many cases of illness and death might be prevented. The process of testing is a very simple one, it being necessary only to observe that when the milk is acid the blue paper will turn red, and when it is sweet, no change will occur.

10. Another danger to which children are exposed is the use of milk which has been poisoned by standing in pans made of tin adulterated with lead. Infants are more susceptible to injury than adults, on account of their weakness and small vitality. Milk should be kept in vessels of earthen or granite-ware which have been carefully cleaned and scalded.

Many mothers have sacrificed their children by attempting to rear them upon the various "baby foods" offered for sale. A majority of these foods are starchy preparations which contain little or no nourishment valuable for infants. Some of them are useful, but none are better than preparations which can be made at home, for which directions will be given in the next number.

11. Many children have been starved to death on condensed milk. The cane-sugar which ordinary condensed milk contains in great quantity is very likely to give rise to fermentation and catarrh. Evaporated cream or milk which is condensed without the addition of sugar, is better, but this is in no way preferable to fresh sterilized milk or to the preparations referred to in this article.

Directions for feeding infants whose digestive organs are badly disordered are considered in connection with the diseases in the treatment of which they are especially necessary.

12. A nursing mother should never give way to fits of anger or depressing emotions, but should endeavor to improve and sustain her general health in every possible way — by proper diet, daily exercise in the open air, abundance of sleep, avoidance of overwork, etc. Exhausting exercises must be carefully avoided.

(*To be continued.*)

FOOD FOR BABIES.

IT is astonishing how mothers feed their children. I have seen a five-year-old girl with food enough on her plate for an able-bodied wood-chopper; and I have seen children sick and dyspeptic when nothing ailed them but being stuffed with enormous quantities of food which was hardly fit to be eaten by them or any one else in any quantity whatever. "Not three years ago, in New England," says

Mrs. C. F. Wilder, "I saw a baby, not more than six months old, eating a piece of fruit-cake.

"'Aren't you afraid that will hurt your baby?' I asked.

"'O no,' answered the mother proudly; 'she eats 'most everything, and has never choked yet!'

"Not long ago I was in the home of a young mother, one of the brightest women I know, well up in literature, music, and art, and an exquisitely neat, dainty housekeeper. The nurse-girl informed me, when I entered, that both the little girls were quite sick. The mother soon came in, face full of trouble. The doctor did not know what was the matter. One child had had convulsions, and both were taken with vomiting, pain in the stomach, and were cold and deathly sick.

"'Eaten something they ought not?' I suggested. 'Canned meat or fruit?'

"'No, I'm afraid of canned goods,' replied the mother.

"'Picked some leaves from a shrub, perhaps?'

"'No; I asked them. It's so queer,' said the loving mother, with a puzzled look in her pretty eyes. 'Some of the ladies recommended a sort of "Gladstone Club" for little ones, and it was so warm yesterday I did let the children pull off their shoes and stockings so as to let their bare feet touch the earth, and I 'm afraid it was that;' and the dear little mother actually regretted the most sensible thing she had ever done for her children. 'They were taken sick in the night, and the doctor asked me what they ate for supper. All they ate was two or three little hot biscuits, maple sirup, lobster salad, the plainest kind of layer cake, some iced milk, and a very small piece of frosted lemon pie. Of course, pie is n't just the thing for supper, but their papa is so fond of pie. Do you suppose that the pie could have hurt them?'

"I mildly suggested that lobster salad might have been indigestible, especially if eaten with iced milk, but the mother was sure I was mistaken.

"If those two beautiful children grow to womanhood, what is to prevent them from feeding their children on food that not only gives imperfect nutrition, but is actually poisonous?

"Experience in some things is a poor teacher, notwithstanding all we have always said to the contrary. We are learning very little from her. Let us ask for a scientific education in domestic economy, if we have an honest desire to save our nation."

Plain, simple, healthful food, without condiments, stimulants, or high flavors, is not attractive enough to cause gluttony; it makes the best blood, and ensures the best appetite and the best digestion. If we eat to live, we are likely to live to eat a good while.— *The Safeguard.*

Fresh Air for the Baby.— A daily outing for each one of the small members of the family is a good rule, but like any good rule, ought to be subject to modification. The time of day and the length of the outing must be determined by the thermometer, the barometer, and the wind. All the various conditions must be noted, and the time spent out of doors must be lengthened or shortened accordingly. In stormy weather or on bleak, windy days,— such days as seem to penetrate all the clothing that can be worn by grown-up people,— little children are better off in the house, where there is good ventilation. If baby seems uneasy or fretful on a stormy day, when it does not seem wise to take him out of doors, put on all his outdoor wraps and take him into a south room and open the

windows, and let him run around for a few minutes. If he is too young to run, put him in his baby carriage and wheel him around the room with the windows open. If the day is simply windy, let him go out, but not to stay over five minutes; the change of scene and the fresh air will often work wonders toward bringing the little one back to a state of harmony. A little girl once said, when she had been disobedient, "I want to go outdoors and get some fresh air in my mind." Many mothers might get a useful hint from this little girl.

The time for baby's airing should be reversed in winter from the time in summer. In the winter, from eleven until two o'clock is the warmest time and best suited for baby; while in hot weather early in the morning and late in the afternoon are the best times for baby to be out of doors. Baby goes out looking pale and tired; and when he comes in, he is rosy-cheeked and happy. Perhaps you will say that all this takes too much time; that you cannot do it; but I want to ask if it takes any more time than it does to take care of a fretful and peevish child. — *Mothers' Journal.*

How to Stop the Baby's Crying.— Though the sound of a baby's crying is never agreeable music, even to the most devoted mother, it has been held for centuries that this was an affliction from which there was no escape. It has remained for the trained nurse to discover a method by which babies are induced to hold their peace: As soon as a child begins to cry, the nurse catches it up, holds it gently, and places her hand over its nose and mouth so that it cannot breathe. The crying ceases directly, and the child is allowed to breathe freely again. Should it a second time attempt to scream, the same simple and effectual method is applied. This is repeated till the baby imagines that the painful stoppages of the breath are caused by its own efforts to scream, and so is careful to keep quiet.

It is claimed that this plan works to a charm, and that the self-control exhibited by infants three months old, even when in actual pain and distress, is something remarkable. — *Popular Science News.*

Knitted Bath Blanket.— A very useful and neat bath blanket can be made for a baby by knitting in plain rows or garter-stitch. Cast on from one hundred and fifty to two hundred stitches for the length, and make enough rows to give a square blanket. Three to five ounces of heavy, soft wool make a good size, working on long, loose needles, say No. 12. To the edge of the blanket may be added a row of scallops. This blanket is also handy to throw around the child when passing through the halls or from room to room.

Rights of the Baby.— He has a right to be "well born." He has a right to healthful blood and clear brains,— not those impoverished and befogged by dissipation, narcotics, and alcohol. He has a right to a happy, healthy mother — one not exhausted by overwork. He has a right to her first care and thought. He has a right to be kept sweet and clean, that he be not repellent to those about him. He has a right to be "mothered" every day of his little life, not turned over to the mercies of the average ignorant hired nurse. He has a right to wise discipline, since, if undisciplined and uncontrolled in his infancy and childhood, his future may be hampered by faults his mother should have corrected. He has a right to a good general education, that life's best gifts may be fully appreciated. He has a right to the cultivation of any special talent with which he is by nature endowed. — *Sel.*

THE BILL OF FARE IN HOT WEATHER.

BY MRS. E. E. KELLOGG.

WITH the advancement of the heated term there comes to the housewife the perplexing question of what to provide for the table that shall fulfil the requirements of the system under the trying conditions which summer imposes. Meats, pastries, rich sauces and gravies, hot puddings, and other clogging, heating, and stimulating foods are best discarded from the bill of fare. The lavish wealth of greens and fruits which the advent of summer brings should be taken as a health hint from nature as to the food best suited for a hot-weather dietary. Meats, milk, and milk products are foods that spoil very quickly in hot weather, requiring special conditions and care to keep them sweet and fresh, even for a short period. The jeopardy to health from their use when not fresh being so great, the conditions for their proper care so frequently unattainable in homes of moderate means, and the liability that proper attention will be neglected by careless cooks and servants in well-to-do families, it is far wiser to substitute some other food of similar nutritive value less liable to be served in an unwholesome condition.

The dietetic value of these foods consists in the fat and nitrogenous food material with which they supply the system. These two nutritive food elements may be supplied in quantity quite as well, and in a quality far more healthful in hot weather, in the shell fruits or nuts and articles made from them. Nuts, together with the succulent fruits, vegetables, and grains, offer an ample and varied food-supply for a hot-weather dietary. These foods also are among those most easily prepared for the table, hence their use greatly diminishes the labor of the cook as well as discomfort in hot kitchens during the sultry days of summer. Of course it is possible to prepare them by an elaborate and laborious process, but it is not necessary. Nearly all the grain preparations may be prepared for cooking in ten minutes, and may be cooked in a double boiler over a kerosene oil single or double-burner portable stove, requiring no attention except to keep the heat continuous and the outer boiler filled with water. With a well-cooked grain served with a dressing of fruit or fruit juice, no other hot food is needed for breakfast on a warm summer morning. If a hot beverage is considered essential, a most delicious one, which will be both food and drink, may be prepared in a moment as needed with boiling water and malted nuts.

Simplicity in respect to the material used, the manner of its preparation, and the number of dishes provided, should be the constant endeavor during the hot season. Fresh fruits may well take the place of the dessert upon the dinner bill of fare; and nothing could be more dainty and delightful for the last course at dinner than ambrosia, a new nut preparation, with strawberries or cherries.' A soup prepared from some of the seasonable vegetables, served hot at the beginning of the meal, will stimulate the flow of the digestive fluids and lessen the need of other hot foods. The following bills of fare and recipes are offered as suggestive of a simple, easily prepared, hot-weather diet[1]: —

Breakfast.

Fresh Fruit
Browned Rice with Black-Raspberry Sauce
Nuttose Sandwiches
Malted Nuts with Zwieback

[1] The nut preparations mentioned in this article are those manufactured by the Sanitas Food Co., Battle Creek, Mich.

Dinner.

Green Pea Soup
Lettuce Salad
Granose Flakes with Nut Cream
or stewed fruits
Bread and Nut Butter
Fresh Fruit

Breakfast.

Fresh Fruit
Cracked Wheat with Blackberries
Served with Nut Cream.
Nut Crisps with Stewed Fruit
Sliced Nuttose

Dinner.

Corn Soup
Cabbage Salad
Stewed Nuttose with Tomato.
Raspberry Granola Mush
Breads, Nut Butter
Fresh and Stewed Fruits.

RECIPES.

Cabbage Salad.— Take one pint of finely chopped raw cabbage; pour over it a dressing made of three tablespoonfuls of lemon-juice, two tablespoonfuls of sugar, and a half cup of whipped cream, thoroughly beaten together in the order named; or serve with sugar and diluted lemon-juice. Strained tomatoes with a tablespoonful of lemon-juice to the pint also makes a nice dressing.

Lettuce Salad.— Prepare the lettuce by washing each leaf separately in cold water, rejecting any portion that may be bruised or brown. Drain on a fresh towel or napkin and place in a dish on ice or in some cool place until needed. When ready to use, if the leaves are too large, tear them in pieces with the fingers or a fork (do not cut with a knife), rejecting the large and harder portion of the mid-rib. Serve with a dressing of strained, stewed tomato and lemon-juice, in the proportion of one tablespoonful of lemon-juice to one small cup of tomato, with salt to season, or with any of the preferred dressings given in a recent number of this magazine. A garnish of the chopped or grated yolks of hard-boiled eggs makes a pleasing addition.

Raspberry Granola Mush.— Strain the juice from freshly stewed and sweetened or canned red raspberries; heat, and when boiling, stir into it dry granola sufficient to thicken it. About one pint of granola will be needed for each quart of juice. Serve hot with or without a dressing of cream. If necessary to do so, the juice may be diluted with from one-third to one-half water.

Green Pea Soup.— Gently simmer two quarts of shelled peas in sufficient water to cook, leaving but little juice when tender. When done, put through a colander; add to this pulp an equal quantity of hot water in which has been dissolved two spoonfuls of nut butter, and a small onion cut in halves. Boil all together five minutes, or until the soup is delicately flavored; then skim out the pieces of onion, add salt if desired, and serve. Celery may be used in place of onion, or both may be omitted.

Green Corn Soup.— Take six well-filled ears of tender green corn. Run a sharp knife down the rows and split each grain; then with the back of a knife press out the pulp, leaving the hulls on the cob. Scrape from the large to the small end of the ear. Break the cobs, if long; put them in cold water sufficient to cover, and boil half an hour. Strain off the water, of which there should be at least one pint. Put the corn water on again, and when boiling, add the corn pulp, and cook fifteen minutes, or until the raw taste is destroyed. Rub through a rather coarse colander, add salt and a pint of hot water, in which has been dissolved two spoonfuls of nut butter; if too thin, thicken with a little corn-starch or flour, boil up, and serve. A teaspoonful of sugar added to the soup improves the flavor for some tastes.

Browned Rice with Black Raspberry Sauce.— Spread a cupful of rice on a shallow baking-tin, and put into a moderately hot oven to brown. It will need to be stirred frequently to prevent burning and to secure a uniformity of color. Each rice kernel, when sufficiently browned, should be of a yellowish brown, about the color of ripened wheat. Steam in an earthen dish over a kettle of boiling water, using two cups of water for each cup of browned rice. When properly cooked, each kernel will be separate, dry, and mealy. Prepare the sauce by pressing canned or freshly stewed black raspberries through a fine colander to remove the seeds. The sauce should be about the consistency of cream. Serve hot or cold as desired.

Cracked Wheat with Blackberries.— Heat four and one-half cups of water to boiling in the inner dish of a double boiler, and stir into it one cup of cracked wheat. Let it boil rapidly until thickened and the wheat has ceased settling. Then place in the outer boiler, and cook continuously three or four hours. Just before serving, stir lightly into the wheat some fresh, well-ripened blackberries.

Nuttose Sandwiches.— Spread thinly cut slices of bread or wafers with nut butter, and place between them minced nuttose which has been lightly seasoned with salt and lemon juice.

Nut Crisps.— Mix together thoroughly one and one-half cups of coarse graham flour and one-half cup of hickory-nut meal, prepared by pressing the chopped meats of nuts through a fine colander. Make into a rather stiff dough with ice-cold water, knead well, roll into a sheet as thin as brown paper, cut with a knife into squares, and bake on perforated tins until lightly browned on both sides.

Keeping Food Germ Free.— Especial care should be taken during the summer months to keep all food covered from the dust and flies, for both carry with them disease-producing germs. In the air in the vicinity of every human habitation there is always more or less filth which is becoming dry and infecting the air. This dust falls on everything that is exposed, and contaminates all food, whether wet or dry. If the food is fluid, it will soon cause it to begin to spoil, as the germs grow fast and increase in numbers rapidly. This is especially noticed in a damp time by the rapidity with which walls in a dark, damp, unaired room collect mold.

The fly is a scavenger, and will soil his feet and fill his stomach with the foul juices of carrion or the fresh tubercular sputum from the consumptive's lungs, and then light in the cream-pitcher or sugar-bowl, and wipe his feet and deposit his fly-specks full of disease germs in the dainty morsel which the fastidious housewife has prepared for her family to eat. It is not a very difficult task to keep the flies out of a house if it is well screened and all the screen doors and windows are kept shut. It pays to take a good deal of trouble, if necessary, to keep food clean, so that it may be a medium of strength and health instead of a means of carrying disease germs into the internal organs. K. L.

Nutritive Value of Meat Broths.— Some dogs fed exclusively on meat broths (500 grams) in Vulpian's laboratory, died at the nineteenth day, while others to whom water alone had been given, survived within one day as long, dying the eighteenth day — showing the negative nutritive value of meat broths.— *Bull. de Therap.*

DEFIANCE.

COME on, ill-visaged demons, Foreboding and Despair,
Come on! I hurl defiance, and will face you anywhere;
I am armed for battle royal, and will bravely fight ye both;
My weapons, good digestion and a liver never sloth.
When I scent a fight impending, with antagonists like these,
I avoid hot, sodden biscuits, nor bolt rich pie and cheese;
I don't "load up" with coffee, mix acid fruits with cream,
And then, awake, lie wondering why life's paths so hopeless seem.
I just go into training, and exercise a bit,
I dine upon such wholesome meats as common sense deems fit,
And when I toss my castor, and jump lightly in the ring,
I'll knock Foreboding "silly," put Despair's eye "in a sling."

— *Sel.*

Rare Old Dainties. — Perhaps the most remarkable dinner on record was that given by an antiquary named Goebel, in the city of Brussels. A description of it is furnished in the Boston *Cooking School Magazine* by one of the guests, Mr. Amaziah Dukes, of New York: —

"At that dinner I ate apples that ripened more than eighteen hundred years ago; bread made from wheat grown before the children of Israel passed through the Red Sea, and spread with butter that was made when Elizabath was queen of England; and I washed down the repast with wine that was old when Columbus was playing with the boys of Genoa.

"The apples were from an earthern jar taken from the ruins of Pompeii. The wheat was taken from a chamber in one of the pyramids; the butter from a stone shelf in an old well in Scotland, where for several centuries it had lain in an earthen crock in icy water; and the wine was recovered from an old vault in the city of Corinth.

"There were six guests at the table, and each had a mouthful of the bread and a teaspoonful of the wine, but was permitted to help himself bountifully to the butter, there being several pounds of it. The apple-jar held about two thirds of a gallon. The fruit was sweet and as finely flavored as if it had been put up yesterday."— *Youth's Companion.*

Our Natural Food. — In all my long medical career, extending over forty years, I have rarely known an instance in which a child has not preferred fruit to animal food. I have many times been called upon to treat children for stomach disorders induced by pressing upon them animal to the exclusion of fruit diet, and have seen the bad results occur from the practise of reverting to the use of fruit in the dietary. I say it without the least prejudice, as a lesson learned from simple experience, that the most natural diet for the young, after the natural milk diet, is fruit and whole-wheat bread, with milk and water for drink. — *Sir B. W. Richardson.*

To avoid the odor which too often fills the house when cabbage or other green vegetables are boiling, follow these simple directions: Put the cabbage in a net, and when it has boiled five minutes in the first pot of water, lift it out, drain for a few seconds, and place carefully in a second pot, which must be full of fast-boiling water on the stove. Empty the first water away, and boil your cabbage till tender in the second.

THE caterpillar is so greedy that in one month it usually devours six thousand times its own weight in food.

THE SALVATION OF MR. CRANDON.

BY MRS. S. M. I. HENRY.

III.

"My dear John! bad news? You look as if —"

"Katherine, I am afraid he is going to die."

There was silence, during which the two stood holding each other's hands, looking into each other's eyes, until tears blinded them.

"Tell me about it," she said at length, dropping into a chair.

"There is n't much to tell. Dr. Green was with him all night. He says it is heart failure; he is giving him digitalis every four hours, with hot milk every two. When I went in this morning, Mrs. Crandon was taking him a piece of hot broiled steak, an inch thick, rare to raw. He was to get the juice out of that for his breakfast."

Dr. Grant dropped his forehead on his hand, while such tears as only a strong, tender man can shed, rolled down his face. Katherine, however, sat looking around almost dry-eyed, until she seemed to see something; and then she spoke.

"I never saw such creatures as men are. Here you allow a set of professional rights and courtesies, as you call them, to make a wall over which it is impossible for one man to go to save a life, because it so happens that another man has passed it first. Now Brother Crandon has no more heart failure than I have. That is, he need n't have. He probably has failure all over at this stage of his case. He has not been eating much of anything for a good while, and before that he ate everything that he ought n't, and nothing that he ought. He has worked hard all winter in the revival meetings, among the poor, out night after night until after midnight, up until almost morning. I suppose if he has slept four hours any night, he has done well; and I know more than once recently, from Stella, as well as Mrs. Crandon, that he has scarcely been in bed at all, staying up all night to talk and pray with some one; and now the first spring weather has prostrated him. His heart is weak, like the rest of him, because his whole digestive apparatus has been overworked, and his whole nervous system abused.

"What in the world are you laughing at? I do not think it is any laughing matter?"

"The laugh is a sort of reaction, I guess. Your diagnosis sounded so professional that it seemed really funny, coming from you; but it is correct, and I see hope in it. I do not believe Brother Crandon has heart disease. There is such a thing, of course, sometimes; although a great deal that passes for it has never touched the heart. This is a case of that sort, I am sure. I believe I know what ought to be done for him; but, as you say, professional rights and courtesies *are* in the way. Yet we believe in God, and so does Dr. Green. This must help us, although Dr. Green is not a very spiritually minded man. He makes a point of being very practical, you know, in everything; and sometimes that means outright materialism. He does not believe in any cures that are not brought about in the regular professional way. But he was very courteous this morning when I went in. He was just coming out of the room. He met me cordially, and asked me in to see the patient. It is terrible to see what a few days have done for him. It was almost too much for my composure. When we came out, Dr. Green told me more than I ever knew him to

say before as to what he thought about a case. He is very grave over it. I had a good mind just to open my heart to him, then and there. I am sorry I did not, but I was really too full — we both were — for much talk. That man's life is a great deal to us both. I told Dr. Green he could depend on me for anything that I could do."

"What *can* you do? He would not accept your counsel, nor let you nurse his patient."

"No-o-o — but — my dear, I will say to you what I never have said before to any one: Dr. Green has a weakness."

"Indeed! and a monopoly of it?" and Katherine Grant laughed.

"Right again, Mrs. Grant, but this particular weakness lies just where I think it can be made to help us. You know — but, no — you are laughing yet — I won't say another word. You need not ask me a question. I will not tell you a thing. Good-by."

"John, wait! What are you going to do?"

"Not a word, Kate. I won't be gone long."

Dr. Grant was out of the door, down the street, and off. She looked after him a moment, and then went back to her work, smiling. One thing she was sure of — Dr. John Grant would not do anything she need be ashamed of.

Dr. Green was in his office. Some patients were in waiting, but the newly awakened sympathy between the two rival doctors, caused by their common anxiety, led Dr. Grant's card to be honored at once by a hearty, "Come right in, doctor," from the consulting-room, and Dr. Green met him with outstretched hand and a jocose, —

"Well, well! I never expected to see you in my consulting-room, Dr. Grant. What is the matter with you?"

Then, as the possible reason for this visit flashed upon him, he suddenly sobered, and asked anxiously, "Is it Brother Crandon? Have you been sent for me? — but they have a telephone."

"I have not been sent for you, but I am sure I have been sent *to* you; and it is about him. Can we have a few minutes together uninterrupted, doctor?"

For reply Dr. Green arose and hung a little card on the outside of the door, closed and locked it, and seated himself before his visitor.

"Brother Green, it seems to me that one common interest in that good man ought to bring us very near together," said Dr. Grant huskily.

For reply, Dr. Green held out his hand, which Dr. Grant quickly grasped, and held a moment.

"We cannot have him die, — he must not die."

"God knows," and Dr. Green's voice was muffled to a whisper.

"Yes, he knows; let us appeal to him, you and I. He can give you light on that case. We can *not* have him die, unless it is God's will, and I do not believe it is."

"You have touched the spot, Brother Grant. I have been seeking light these last three days, and this morning especially. Brother Crandon has been in my mind to the exclusion of every other patient. I was hurrying to get back to him. I believe in prayer, but I do not pray as I ought to, I suppose; I am glad you have come to pray for me."

Dr. Grant felt a twinge of reproof, as he remembered what he had come for. That this holier purpose had been suddenly breathed into his soul, from the atmosphere which seemed to be awaiting him as he entered Dr. Green's consulting-room, he knew full well. He became more than sure that he had been led to this interview but was ashamed that the pure Spirit of God had been obliged, for

lack of a better, to make use of such an unworthy impulse by which to lead him here. Dr. Grant had often thought, and before this morning had said, that Dr. Green was not as spiritual a man as he might be. Katherine had replied to this thought in a way to cause him to infer that she considered the same thing might be said of some others whom she knew; just now he was inclined to believe her.

LITTLE MAIDENS.

How should little maidens grow
When they 're ten and over?
In the sunshine and the air,
Wholesome, simple, fresh and fair
As the bonny daisies blow,
And the happy clover.

How should little lassies speak,
When they 're ten and over?
As the birds do, and the bees,
Singing through the flowers and trees
Till each mortal fain would seek
The merry-hearted rover.

How about her eyes and ears
At this stage of growing?
Like the clear, unclouded skies,
Not too doubtful nor too wise,
So that all she sees and hears
May be worth the knowing.

And the little maiden's heart?
Ah, for that we 're praying;
That it strong and pure may grow;
God, who loveth children so,
Keep her from all guile apart,
Through life's mazes straying!

— *Journal of Education.*

SERENITY IN CHILDREN.

We have a country full of nervously overwrought children. What our American babies need more than any amount of hardening experience is serenity, and room for quiet and orderly growth. I believe that the gentlest and most loving mother would be amazed if she were to count the number of times that her child under three years old cried in a week, and those over three in a month. If she herself cried, or had occasion to cry, half as often, she would, if she were not a very strong woman, rank with the army of nervous invalids. It is a mistake to suppose that a child's sorrow is not as hard to bear in proportion to his strength as an adult's. The child is shut up to the present suffering in a way that no grown person can realize. He does not reason about it, and know that it will soon be over; he does not remember how quickly past experiences become bearable; he only suffers, and the world is to him for the moment one blind pain. Did you ever notice the look of utter desperation in the eyes of a child who had bumped his head violently? Indeed, have you recently bumped yours? and do you remember how it hurt? A child's mental suffering is of the same kind, intense and blinding. In common humanity, he ought to be saved as much of it as possible.

Do not understand me to say that when a question arises of which must suffer, the child or the moral law, it shall not be the child. In the long run, to suffer now for the infringement of a moral law is the happiest thing that can happen to a child, if the suffering be retributive, that is, educative. But I do believe that the child and the moral law should be brought into opposition as little as possible. The object in the training of the child is not, I

take it, to teach him to bend his will to his mother's, in howsoever wise and gentle fashion, but to teach him to love righteousness and the Author of it with all his heart and all his strength. To do this, it is surely the part of wisdom to make righteousness as lovely and easy a thing to him as possible.

If we would have our children learn to resist temptation, we must do more than teach them to yield to our smiling "No, no." Our word is not the law; only God's is. And the child recognizes this truth quicker than a skeptic would believe. The object should be to keep the child in a state of serenity, as full of happiness as the varying chances of life will permit, and as richly supplied with the best possible conditions for growth, including noble examples. He should be, like the first man, in a garden of Eden, and his mother should not be the one to tempt him to eat of the tree of knowledge of good and evil. If the child eats, of course he must be driven forth; but the mother need not be so afraid that he will miss the discipline of suffering that she chases him up the forbidden tree whichever way he turns. — *Marion Foster Washburne, in Chicago Times-Herald.*

THE TRUTH — BUT NOT THE WHOLE TRUTH.

ONE day, when I was a child, a lady came to call on my mother.

"I am not quite ready to go down," said mother, "run to the parlor and entertain Miss B. till I come."

I was not at all shy, and entering the room, held out my hand and delivered the message.

"Mother will be down in a few minutes."

Miss B. was in the neighborhood of fifty years of age, but she dressed like a girl of sixteen. Her hair, artificially darkened to hide the gray locks, was surmounted by a white hat gay with pink rosebuds and gauzy ribbons. Her face, wrinkled and yellow, was smeared with powder, with a bright dash of pink on either cheek. Her eyes were drawn and haggard. Her angular figure was draped with a diaphanous gown of rose pink, a mass of fluff and ruffles, of lace and ribbon.

My eyes wandered with a child's love of bright things over the beautiful dress to the gay hat, and then dropped to the face below. The contrast was so painful, so strange, so out of nature, that I stood transfixed, unable to take my eyes from the impossible old wrinkled face surrounded by the frivolities of youth. She bridled under my long stare, arched her brows vivaciously, and with a little coquettish movement of her head, said: —

"Child, do you think me pretty?"

"No," came the child's reply with simple, honest, directness, "I think you are ugly."

She flew into a rage, and called me a very bold, disagreeable, ill-bred little girl.

When Miss B. was gone, I slipped into my mother's arms and told my story. Mother laughed heartily, much to my relief.

"Why was she angry when I told the truth? You told me to tell the truth always."

"Yes, dear; but it is not necessary to tell all you know or think It is always best to say what will make people happy, and you can generally do so without falsehood, if you take the trouble to think a little. It was very silly of Miss B. to ask you such a question, but you might have said that her dress was pretty, which

would certainly be true. Look for the pleasant and beautiful things in the persons you meet, and try to forget what is ugly — then you will make others happy and be happy yourself."

Next to the scandal-monger, I would be delivered from the woman who always says what she thinks, who calls on her neighbor, and remarks : —

"How thin and miserable you look ! What in the world is the matter with you ? "

And the poor neighbor goes around with her mouth down at the corners and that heavy little feeling about the heart that makes a sunny day seem dark. How much better to have entertained her with some bit of news that would have given her something to think about, or to have comforted her with the sympathetic kindness that cheers the heart!

When I see the woman who boasts of her frankness and bluntness, going about, telling the mother of twelve that children are the greatest nuisances on earth, and that she thanks the Lord she has none ; telling the man who wears a tall hat and extra high heels to his shoes that she despises little men ; telling the merry maid that girls are little better than giggling idiots — then I remember my mother's words, and think how much wiser it is to look for the lovely thing and to say the pleasant thing.

Of course, when it concerns a matter of principle, one cannot be too frank or too honest, but in the many trivial things of life it is best always to think the kind thought and to say the kind word. — *Home and Farm.*

Lincoln and the Colored Corps.— A touching incident is told by General Porter in the April *Century* of a visit by President Lincoln to the colored troops under General Grant near Richmond, Va., during the Civil war. It was Lincoln's first visit to the camp, and he was everywhere received with the greatest enthusiasm. Of his meeting the colored troops, General Porter says : —

"The camp of the colored troops of the Eighteenth Corps was soon reached, and a scene now occurred which defies description. They beheld for the first time the liberator of their race — the man who by a stroke of his pen had struck the shackles from the limbs of their fellow bondmen, and proclaimed liberty to the enslaved. Always impressionable, the enthusiasm of the blacks now knew no limits. They cheered, laughed, cried, sang hymns of praise, and shouted in their negro dialect, 'God bless Massa Linkum !' 'De Lord save Fader Abraham !' 'De day ob jubilee am come, shuah!' They crowded about him and fondled his horse ; some of them kissed his hands, while others ran off crying in triumph to their comrades that they had touched his clothes. The president rode with bared head ; the tears had started to his eyes, and his voice was so broken by emotion that he could scarcely articulate the words of thanks and congratulation which he tried to speak to the humble and devoted men through whose ranks he rode. The scene was affecting in the extreme, and no one could have witnessed it unmoved.

The Queen's Visit.— To be old and poor and bedridden is generally to be debarred from the greater privileges of life, but there was one old man in Scotland whose disadvantages procured him a privilege that the strong and more active members of his family were seeking in vain.

It was on an occasion when Queen Victoria was at Balmoral; and, as she often did, she went one day, unaccom-

panied, to visit the cottages. In one of these she found an old man, bedridden and quite alone, and she sat down to talk to him.

"And how is it you are alone?" she asked. "Have you no one to keep you company?"

"No," replied the old man innocently, "my folks be all away seeing the queen; they thought they might get a glimpse of her."

His visitor made no reply, but she sat with the old man, pleasantly filling the gap made by the absence of his "folks," and then found time to read to him from the Bible she herself treasured. On leaving, she gave a further proof of her sympathy in the shape of a five-pound note, accompanying it with the words: "When your people come back, tell them that while they have been to see the queen, the queen has been to see you."— *Youth's Companion.*

A Mother's Influence.— If every intelligent mother in this land could bring herself to an accurate realization of the power for broad yet conservative advancement which lies merely in her position in the plan of society — what an immediate uplifting of womankind there would be! And beyond this, too, reaching away off into the future, is the influence she exerts upon her children and through them upon an ever-widening circle. She has great power for good in this never-ending, ever-expanding influence, which must go out to the world from her, through her children, as well as in the strong and right expression of her individuality. — *Mrs. Burton Smith.*

In Secret Only.

THE spring reveals herself in secret only,
Through hidden signs we guess her mystic power.
The fields are bare, the woodlands wild and lonely,
But, lo! beneath the earth she hides the flower.
The willows quicken at the river's brim,
The eager alder breaks her tiny buds,
The upland hills are wrapt in hazes dim,
And sweet, impulsive life has stirred the woods.
— *Dora Reed Goodale.*

CHILDHOOD'S WRONGS.

INSTEAD of some half-educated, well-meaning, but ignorant nurse, I believe the day will come when no woman will be considered too highly educated or too refined to mold the early impressions of the youngest child, and that mothers will see that in order to secure the services of such refined and cultured ladies, they must make a revolution in the accepted ideas of the position of nurse. There ought to be no situation so honorable, no friend so trusted, as the one who from the earliest moment of the child's awakening intelligence, undertakes to guide the thought and form the character as to secure the child's future well-being.

The trouble is that we begin too late; we allow a child's mind to become a garden of weeds, and then before we can plant, we see that we have to uproot that which has been sown during the most fruitful years; and therefore time is lost in undoing, which would have been invaluable for cultivation. The games, the rhymes, the songs, the associations, of the nursery, should all have a decided color, should all help to bend the young mind in the right direction; and the impressions made at a time when they leave ineffaceable traces should be drawn with the deliberate intention that they shall thus potently affect the character.

The sorrows of childhood are not so near the surface as they are supposed to be.

> "A boy's will is the wind's will,
> And the thoughts of youth are long, long thoughts."

How many children chafe under a sense of the injustice that the treatment of their difficulties brings to them! I knew a child who, because she was outspoken as to the doubts that arose in her mind — perplexities that have bowed many a thoughtful head in every age — was kept apart from all the other members of the household alone up-stairs in her room until tortured into a submission which was only given because there seemed no alternative, but which left a mind bewildered between the sense of her extreme wickedness and its revolt against the injustice which she could not reconcile with any ethical standard or religious principle. Many a sorrow eats into a child's heart that it has not the strength to express or the courage to share with its elders; but I think that if instead of posing as infallible — a rôle which at best breaks down very soon — we were to speak more freely of our difficulties to the young, we should find out the beautiful law which binds us together, and which makes mutual confidence the most delightful feature of home life. — *Lady Henry Somerset, in the Arena.*

Fault-Finding at Meals. — It is a common practise in many households to reserve the scoldings of the day for meal time. Then each culprit in turn will receive his or her lecture, and in nine cases out of ten will sullenly or broken-heartedly gulp down only a few mouthfuls of food, in order to escape as hastily as possible from the parental presence. There are, perhaps, rare occasions when such censure may be necessary and beneficial, but in the majority of cases more harm than good is accomplished.

Few people care to be dictated to about the training of their children, foreign interference being especially unwelcome. Yet the true parent will always be ready to give any practical suggestion a fair trial. The average child is extremely sensitive, notwithstanding the fact that he may appear otherwise; and harsh fault-finding before others tends to imbitter him against the person who indulges in this form of rebuke. Those scoldings which take the form of reasoning, and which the child receives when no one else is present, not even his brothers and sisters, are far more apt to appeal to his better nature, to his sense of right and wrong, than reproof delivered openly. In the latter instance, the child will almost invariably harden his feelings and features in order to keep from giving vent to tears.

The parent who may perhaps have grown a little careless in methods of reproving, will do well to give thought to this side of the question. — *Household.*

Obedience to Rightful Authority. — A bit of candy or a cake, surreptitiously given to a child from whom these unnecessary articles are usually kept, not only disturbs the stomach, but suggests a course of conduct which is unlimited in its possibilities of evil; for a luxury, harmless and even advantageous in itself, given in disregard of rightful authority, becomes an evil. Reverence for law and obedience to rightful authority are most necessary in these days of independence, and anything which disturbs such reverence and obedience, however harmless in itself, should be scrupulously avoided. So far as an outsider is concerned, parental rules for the child are absolutely

inflexible, and obedience to his father's and mother's directions should be made as easy as possible to him. A similar principle should be recognized in regard to teachers. Parents are too careless in speaking disrespectfully of school rules before their children. A mistake in method of discipline is not likely to be so mischievous in its results as a spirit of rebellion against authority nourished in the child's heart. Discussion of teachers and their measures should be held in private; if they are thoroughly wrong, the child should be removed from the school; if on the whole good, the errors should be excused. — *Mrs. Lyman Abbott.*

Say Pleasant Things. — Would it not be well to cultivate the grace of saying agreeable things? This power to say pleasant things is an accomplishment which is generally overlooked or left as a mere worldly matter to light-minded people. But why it should be counted more Christlike to utter unpleasant truths than pleasant is a somewhat puzzling question.

She Was Comforted. — The New York *Tribune* of recent date tells the story of a little girl of four, who, with her nurse, was walking at the seaside. They came to an inlet, and the nurse decided to row across, thinking thus to shorten the walk home. When the boat reached the opposite shore, she put the child ashore, and left her to make her way home, while she herself rowed the borrowed boat back. The distance was short, but very rough and difficult for a little girl of four. She struggled on through the coarse grass and sand, climbing hillocks and walking through depths. At last her mother saw her coming, and hurried to meet her. She exclaimed, "Were you frightened, my dear?" "I felt very lost," was the reply, "but I sang 'Lead, Kindly Light' to myself all the way."

There was never a stronger argument than this for teaching little children hymns and poetry that have thought in them. The pity of it, that the minds of children are filled so often with nonsense, when it would require no greater effort to give them the inspiration of good literature! — *Child-Study Monthly.*

How to Serve Guests Best. — One may be ever so well prepared to receive her visitor, and yet make life a burden to herself and her household during the visit by trying to do too much to entertain her guest. A little extra work, of course, is inevitable, but it is a great mistake to change the whole routine of family life because a friend has come to share it. Almost any one would feel extremely uncomfortable if she felt that her visit was causing so much trouble. The ordinary way of life, with but little change, ought to be good enough for any one but the most formal of visitors.

Of course it is not right to invite persons to one's house and serve them with scant and ill-cooked food or at an untidy table; but neither has one a right to treat her own family in that way. What is proper for the family is proper for the informal guest, and the wise housekeeper will serve her visitors such meals as she is accustomed to have every day, and save herself the expenditure of thought and labor which more elaborate meals would entail. — *Demorest's Magazine.*

THE best definition of good housekeeping ever heard was that given by a little slip of a boy, who, after listening a long time to a very learned discussion from some of his mother's club associates on the best way to order a home, was asked: "Well, my little man, what kind of a home do you think is best?" A beautiful

light came into the child's eyes. He tossed back his yellow hair and shook his head: "I don't know much about it. Just the only kind that I like is the home that it 's nice to go to." And when all the philosophy, theory, science, and wisdom of the subject had been exhausted, the women there assembled had to agree that the very best home, after all, was the home that it was "nice to go to."

MISS FRET AND MISS LAUGH.

CRIES little Miss Fret,
In a very great pet:
"I hate this warm weather, it 's horrid to tan,
It scorches my nose,
And it blisters my toes,
And wherever I go I must carry a fan."

Chirps little Miss Laugh:
"Why, I could n't tell half
The fun I am having this bright summer day.
I sing through the hours,
And cull pretty flowers,
And ride like a queen in the sweet-smelling hay."

—*Margaret E. Sangster.*

A BREATH OF COUNTRY AIR.

IN the June *Ladies' Home Journal*, Edward W. Bok makes an earnest appeal that the poor children of the cities be given an outing in the country during a part of the heated summer season. He heartily commends the work in that direction being done by the various organizations, and urges that they be given heartier support and greater co-operation. "Strange as it may seem to some," he says, "the word 'country' is only a meaningless sound to countless waifs in our cities. Of a winding stream, of a running brook, of a hill higher than a pile of refuse in the street, they know nothing. The only water they know is that which flows past the city piers. Of a run in a field white with daisies, yellow with buttercups, or red with clover, they have never even dreamed. Their only playground is the hot and ill-smelling pavement. Even a clean bed is unknown to them; the fire-escape, the roof, or an uncovered wagon are their sleeping-places on the hot summer nights. The only glimpse of God's beautiful sky they ever see is through the city's smoke. And yet how many of us think of these little ones? Think of them we may, perhaps, but what do we do for them? Do we ever stop and consider how much we might do? how much others are doing?

"Ten cents will keep a sick baby for a whole day in the country or at the seashore under the direction of some one of these associations. One dollar will bring untold happiness to a child for five days. Three dollars will keep a child in the country for thirteen days. Why not look into the work of the fund or association of summer work for children nearest you, and, before you take your own children to the country, leave or send something, even though it be but ten cents, to one or more of these Fresh Air Funds? It will bring health and happiness to some little child whose mother cannot afford to do what God has made possible for you to do for your little ones. It is not so much that many of us are disinclined to be charitable; it is rather that we are not apt to take the trouble to find out, or to know how much we can do with very little. We would give if we but knew where and how to give. The noblest offering we can make to God is the saving

of the life of one of his little ones. . . .

"The boy or girl whom, this summer, you can be instrumental in either sending to or receiving in the country, will, in the coming years, very likely be a father or a mother. The glimpse you may give such a child of the country this year may modify for good, not only the life of the little one who is the receiver of your thoughtfulness, but later, of his or her children. It is often the simplest thing we do which has the widest influence.

"Our own pleasures will be the fuller this summer if we know that somewhere amid green fields and pure air some little child is enjoying a vacation which but for us it might not have had. Far away from us, perhaps, but under the same blue sky that gives zest to our feelings, and sunned by the same sun that brings health to us, there will be some grateful mother offering blessings to God for the unknown hand of mercy stretched forth to save the life of her little one. You will have brought sparkle into eyes that were listless; roses into little pinched cheeks; limbs almost crippled by disease will have responded to your medicine. And in some beautiful field yellow with shining buttercups there will be a healthy child romping with glee and breathless with a new delight."

Foot-Binding and Waist-Binding.— A little dumpy, deformed, and useless foot is a badge of gentility among the women of China. A compressed, contracted, and consumptive waist is a mark of gentility among American women, whose fashion is far more deadly than that of their Chinese sisters. Great efforts have been made to free the women of America and China from this bondage to fashion; but still the Chinese women torture their babies' feet, and the American women compress their waists. At present there is considerable interest in reform in this matter in China, and the outlook is hopeful.

Mrs. Archibald Little, of Chung Ching, China, who has been one of the leaders in the anti-footbinding movement, says, in a letter to the Shanghai *Messenger*: "It now requires only a long pull, a strong pull, and a pull altogether, and this hideous custom of one thousand years will become despised, and the women of China once more set upon their feet."

This is encouraging; now who will liberate the women of America? and who will make it a State prison offense for a publisher to print horrible fashion-plates with pictures of gaunt, distorted, slender-waisted monstrosities, whose figures set foolish girls crazy to look like them, and land them in a sick chamber, and finally in a consumptive's grave? — *The Safeguard.*

Old Clothes.— My mother was a thrifty New England woman, remarkable alike for her executive ability and her skilful management of family matters. She had more than a baker's dozen of boys and girls, and her wise disposal of their old clothes seemed to me then, as it does now, highly commendable. If one had outgrown a garment, it descended to the next younger, unless too much worn. In that case, holes were patched, rents darned, and it was put in as good order as possible, after which it was carefully laid away in the attic in a chest kept for that special purpose. Often by the time the winter approached, the accumulations would nearly fill it, and poor families who knew of this habit would come to her regularly for their winter clothing. Those unfit to be darned were sold to the ragman.— *Mary E. Kelly.*

Save the Pieces.— "Can it be possible that you find a use for all those fragments?" I asked Mrs. Ames, as I watched her carefully gathering and sorting the bits of cloth left from an afternoon's sewing.

"Yes, all but the very smallest pieces," she replied. "They help me wash dishes."

"How is that?" I asked.

"I have a little basket hanging near the range, and every piece of white cloth and lining, or anything that is not too highly colored, and is half as large as my hand, I put into it. When I clear the table, I take one of these rags to wipe out the butter dishes, the vegetable dishes, the platter, and anything that needs it. Then I can throw it into the fire, and that is the end of it."

"Rather a saving of china," I remarked, thinking of a certain vigorous scraping which had ended in the cracking of a pretty plate.

"I give the stove dishes the same treatment," she added, "and you have no idea how much easier it makes the dish-washing."

Mrs. Ames being one of the most exquisitely neat and thoroughly practical housekeepers of my acquaintance, I valued her suggestion, and now pass it on. — *The Advance.*

The Care of Shoes.— "Mrs. Peters," remarked Mrs. Price, after the ladies had chatted on various topics of interest for some time, "how do you keep your shoes always looking so nice? Mine will look old and rubbed in spite of all the blacking I put on; it does not last."

"I wondered why you were observing my feet so closely," said Mrs. Peters, smilingly, and drawing her foot under her dress. "But I am very willing to tell all I know on the subject. An old shoe salesman once told me that to keep shoes in good condition one should use vaseline on them, applying lightly with a cloth at night, then polishing off with a clean cloth. Occasionally I put on a little polish, and by giving them a dry rub night or morning, I usually keep them looking well until they are worn out."

"I'm afraid I have so much blacking in the pores of the leather that the vaseline will not penetrate," said Mrs. Price, looking down at her shoes.

"This same man told me," said Mrs. Peters, "when blacking begins to cake on the leather, to wash with plain water, no soap. Perhaps that will help yours."— *Standard.*

Paper Pillows.— Paper pillows are a recent invention. The paper is torn into very small pieces, and then put into a pillow-sack of drilling or light ticking. The pillows are very cooling in hot weather, and are said to be superior to feather ones. Newspapers are not nice to use, as they have a disagreeable odor of printer's ink; but brown or white paper and old letters and envelops are best. The finer the paper is cut or torn, the lighter it makes the pillow.

A Cure for Carpet Bugs.— The following recipe for the extermination of buffalo moths, which infest carpets and all woolen goods, has been tried and found successful: —

Alum	1 oz.
Chlorid of zinc	1 oz.
Salt	3 oz.

Mix with one quart of water. Let it stand overnight in a covered vessel; in the morning pour off, leaving all the sediment. Dilute with two quarts of water.

Sprinkle the solution one foot deep around the edge of the carpet. It will not turn the color or injure the carpet in any way.

HOUSEHOLD HINTS.

A FEW drops of lemon-juice will make cake frosting very white.

BOARDS should be scrubbed along the grain of the wood, and not against it, if they are to be properly cleaned.

IF an oil-can is not at hand to remedy a creaking hinge, the noise can often be stopped by using a soft lead pencil. Moisten the lead point, and rub it into all the cracks and crevices that can be reached.

WHEN clothing becomes wrinkled from packing or from other cause, the wrinkles may be removed by hanging the garments over night in a heated room. Spread the clothes over a clothes-horse as smoothly as possible.

IN packing furs away in camphor, it should be understood that the pieces should not be allowed to touch the fur, as the camphor tends to lighten the color. The gum may be wrapped in tissue paper or put in cheesecloth bags.

TO clean fine lace, spread it out on white paper and cover with calcined magnesia ; place another paper over it, and lay away under a heavy weight for a few days. All that is necessary after that is to shake out the powder.

IN France, instead of using starch in table napkins, after they are washed and dried and ready to be ironed, they are dipped in boiling water and partially wrung out between cloths. They are rapidly ironed with as hot a flat-iron as possible without burning them.

SMALL pieces of toilet soap which are too small to be used may be utilized. Make a bag of Turkish toweling about seven inches square, and put into it all the small pieces of soap. When it is three-quarters full, sew up the end, and use the bag as if it were a cake of soap.

BOILING water, made strong with ammonia, and applied with a whisk-broom, cleans willow chairs admirably. Soap should never be used, as it turns them yellow.

COLORED mattings, that the new buffalo moth's predilection for carpeting have rendered so popular, may be kept bright by an occasional wiping after sweeping with a cloth wrung out of salt and water. This also makes them wear better, as it prevents their growing brittle, with the usual tendency to break in those places most used.

MANY housewives wish to know how to clean white goatskin rugs. They can be cleaned by washing with naphtha. Wet a small part of the rug with naphtha and rub with a soft cloth until that space is clean ; then rub another place, continuing until the entire rug has been treated in this way. Hang in the air until the odor has disappeared. Take care that no gas is lighted in the room where the naphtha is being used.

IN the repairing of cotton clothing it is very vexatious to find that the machine-stitching has shrunken, drawing the seams, hems, etc., into puckers. One teacher of dressmaking in a large institute overcomes this difficulty by soaking the spool of thread overnight in a glassful of water, then standing it where it will dry until ready for use. She also says that oiling colored thread with machine-oil makes it stronger.

EDITORIAL.

HOT WEATHER DIET.

PROBABLY the majority of people are not aware of the important relation that exists between diet and comfort or discomfort during the hot season of the year. The man who takes a breakfast of griddle-cakes, soda biscuit, fried eggs, bacon or sausage, Worcestershire sauce, and strong coffee as an introduction to the work of a midsummer's day, should not be surprised that as the sun climbs toward the zenith, his suffering from the heat becomes more and more intense until, by mid-day, it is well-nigh unendurable, notwithstanding copious draughts of ice-water, cold beer, and kindred beverages. The picture of such a man, fairly roasting and melting under the influence of the solar heat of the temperate zone, presents a strong contrast to the Hindu coolie, toiling, bare-headed, under the direct rays of the sun in an atmosphere twenty degrees hotter, and yet suffering no inconvenience whatever. The difference between the two men is less one of constitutional habit and adaptation than of diet. The man who excites his heart and irritates his nerves by a diet of flesh foods and condiments, must expect to require the aid of an electric fan to cool down the vital conflagration set up by his injudicious eating.

A few suggestions respecting a suitable dietary for hot weather may be acceptable to those who have not given special thought to this subject, or who have not solved the problem for themselves by practical experiment: —

1. Eschew flesh foods and all forms of condiments, with tea, coffee, ices, and stimulants of every kind. Flesh foods, while they do not actually feed the vital fires to the extent that fats and saccharine substances do, nevertheless stimulate heat-production by fanning, so to speak, the vital fires. It is for this reason that meats have acquired the reputation of being heating.

Englishmen residing in Bombay, Calcutta, and other portions of India, who continue their flesh-eating habits, pay the penalty for violating a law of nature by succumbing prematurely to infectious jaundice, abscess of the liver, Bright's disease, and digestive disorders of various sorts. An American friend who had spent some years in the hottest portion of India assured the writer that while living upon a vegetarian diet, he experienced no difficulty whatever from the heat, even during the hottest portion of the season and the hottest hours of the day. Fruits and cereals constitute the best dietary for human beings at all seasons of the year; but while the dog-star rages, this natural dietary is especially appropriate, and conducive to health as well as to immunity from those diseases which are prevalent during the hot months.

Almost the entire stimulating and digestible properties of meat reside in solution in beef-tea, broth, and similar preparations, and flesh foods which have been deprived of these matters are quite tasteless and repulsive. The proteids, or blood- and tissue-building elements, which are found in meat as well as in other foods are, of course, quite as essential in hot weather as in any other season; and since they cannot be obtained from flesh food without the risk of injury, it is fortunate that nature provides us with such a rich store of proteid matters, in the delicate and delicious class of fruits known as nuts. The almond, for example, contains 23.5 per cent. of proteid elements, an amount even greater than is found in the very best and most nourishing flesh foods, beefsteak containing but 19.3 per cent. of this important element. In other words, a pound of almonds is nearly equivalent in blood-making properties to a pound and a quarter of the best beefsteak, and in addition, contains

more than fifty per cent. of a very digestible fat. The hazelnut contains 17.4 per cent. of proteid; the walnut 15.8 per cent.; and the chestnut 14.6 per cent.; while the peanut gives 28.3 per cent., nearly fifty per cent. more than the best beefsteak. It is indeed strange that a class of foods so delicate, wholesome, and nourishing as nuts should have been so much neglected. The majority of people never think of employing nuts as a staple article of diet, or in any other way than as a luxury; yet they are, without doubt, the most highly nourishing and refined of all classes of food substances. That nuts are not more freely used may be, in part, due to the fact that they are not altogether easy to digest.

A recent English writer bemoans the fact that we have not yet learned how to extract the oleaginous and other nutritive properties from nuts, so as to make them available in the place of animal flesh and fats. Fortunately this problem has been solved in America, and as the result, we have a variety of toothsome, nourishing, and most digestible foods prepared from nuts. Nothing more delicious could be desired than a lunch of granose flakes delicately browned in the oven, malted nuts dissolved in hot or cold water, ambrosia, and a generous supply of strawberries, apples, peaches, grapes, or other fresh fruit. In such nut products as bromose, malted nuts, ambrosia, and maltose we have nutrient material in its most condensed and most assimilable forms. The extreme solubility of these preparations enables the digestive organs to dissolve them and pass them on into the blood with the smallest possible amount of effort, thus affording the body the choicest kind of nourishment in a most convenient and tempting form.

2. The use of milk and its products in hot weather is unquestionably a most prolific source of stomach and intestinal disease. Probably more children die from diseases resulting from the use of milk during the summer season than from any other one cause. In its commercial form, milk is always in a state of pronounced infection. In some cases as large a number as two hundred million germs have been found in a single ounce of milk. In the feeble stomachs of infants these germs readily obtain a foothold, and rapidly develop, giving rise to the various disorders of the stomach and bowels to which so many children annually succumb during the summer months. In vain do anxious mothers, nurses, and doctors resort to the use of various expensive mixtures sold as "Infant Foods." Some of these are cheap preparations of starch; others are largely composed of condensed milk, still others of cereals in which starch has been partially converted by the action of malt. All these compounds are more or less objectionable, and thousands of children are annually starved to death on them. Those that contain milk favor the development of diseased conditions already provoked by the use of milk; those which do not contain milk are invariably lacking in the nutritive elements which are especially required by growing children.

In malted nut preparations a long-sought desideratum in summer food for infants is to be found. All these preparations are readily soluble in either hot or cold water; some of them — particularly malted nuts and ambrosia — dissolve more quickly than sugar, and produce a most delicious liquid very closely resembling milk not only in appearance but in composition, with the advantage that it is wholly free from the objectionable features of milk, and is more readily digested than any so-called infant food which has ever been offered.

The late Sir Benjamin Ward Richardson several years ago uttered the prophecy that the time would come when we should no longer be dependent upon cows for a supply of milk, but would obtain it at first hand from the vegetable kingdom. This prophecy is now fully realized in malted nuts and allied preparations. Malted nuts is a preparation which may be satisfactorily substituted for milk in all the various dishes in which ordinary milk is commonly employed. By freezing, either with or without the addition of a fruit juice, it produces a substance identical with ice-cream in appearance, but much more wholesome and delicate. Those

who have become acquainted with malted nuts in their various forms find no difficulty whatever in discarding milk altogether from their bill of fare, and hundreds have testified to the disappearance of the bad taste which had haunted the mouth for an indefinite period,— the result of a slime-covered tongue, — biliousness, intestinal inactivity, nervous headaches, sick-headaches, and numerous other disorders of digestion, as the result of its use.

3. Nothing could be more absurd from a dietetic standpoint than the theory entertained by many that the use of fruit during the summer months is injurious and even dangerous. Fruit is a summer food par excellence. It presents nutritive material in so diluted a form that one may partake of it freely, even apparently to excess, without injury. The small boy climbs the cherry-tree, fills his stomach to repletion with the juicy fruit, but suffers no other injury than a temporary inconvenience from the overcrowded condition of his stomach, and is the next morning ready for a repetition of the experience.

One of the gravest of dietetic errors in a hot season or on a hot day is excess in the quantity of food. Few fruits contain a larger proportion of nutrient material than five to ten per cent.; thus an exclusive diet of fruit may be considered the next thing to starvation; yet it may, nevertheless, be a very comfortable and safe sort of starvation, and one whereby great benefit may accrue to the faster in the rest afforded the digestive organs and the thorough disinfection of the alimentary canal. In the difficulties of the stomach and bowels so common in the summer season, nearly all the symptoms are due to the development of microbes or germs in the alimentary canal. An exclusive diet of fruits, or fruit supplemented with nuts or nut products, constitutes a most effective means of getting rid of these offending and dangerous organisms.

Fruits alone are not capable of sustaining vigorous strength for any great length of time; but fruits supplemented by wholesome nuts or nut products constitute a complete and perfect dietary. From these most delicate and delicious of earth's products a bill of fare may be constructed which might well tempt the appetite of the epicurean. A few ounces of ambrosia, with a few handfuls of fruit, constitute a diet capable of maintaining the most vigorous energy and activity, and of supporting an individual engaged in the hardest work. We have never encountered any food substances which could begin to equal nuts, and especially malted-nut preparations, in staying, or strength-supporting, properties.

4. Such food as cheese, canned oysters and other shell-fish is extremely prone to undergo decomposition in the stomach, producing a putrid condition, which is the certain precursor of digestive disorder and disease. By the exercise of intelligence and good sense in the selection of one's bill of fare during the hot months, it is safe to say that at least nine tenths of the inconvenience from sickness suffered at this season may be easily avoided.

WHAT IS VEGETARIANISM?

THE ordinary understanding of the word "vegetarian" is "a vegetable eater;" but even though "librarian" should mean "book eater," and "antiquarian," "an eater of antiques," still the word "vegetarian" would not necessarily mean "an eater of vegetables;" for the word is derived from the Latin verb *vegeo*, which means "to make strong, to make vigorous, to make lively, to cause to flourish. And from "vegeo" we have "vegetus," which means "live, brave, strong, sound, whole, vigorous, agile." And from "vegetus" we have "vegearious," from which comes the word "vegetarian." Now the word "vegetable" is remotely related to the word "vegetarian," — a sort of second cousin; it is derived from the same root, — there is the word "vigor" and the word

"vigilant;" and even the words "hygiene" and "hygienic" are derived, although remotely, from the same word.

To interpret the word "vegetarian" as meaning simply "a vegetable eater" would be about as consistent as the definition of the word "hygienic" given by a New York health officer. Professor White, of Cornell University, before the days of civil service reform, was appointed chairman of a committee to investigate the fitness of the New York health officers. One of the questions asked each was as to whether there were any epidemics or contagious diseases in his neighborhood. One man replied that there had been two cases of smallpox, one of which had died, and the other he believed had recovered. Another said there was "a family of hygienics" who had had this disease, and he did not know what became of them, as he did not go to see. The next one was asked if he had any "hygienics" in his neighborhood. He replied that "he thought there had been a case or two, but he believed that they had all recovered." The next, in reply to the same question, said that one or two families had had it pretty bad. Still another was asked if he had heard of any cases of "hygienics," but said he did not remember of any. When asked for a definition of "hygienics," he thought for a moment, and then replied that it was "a bad smell arising from dirty water."

In the first chapter of Genesis, where the bill of fare was given to Adam, we find no vegetables. He was given fruits and grains, or fruits and nuts, and these doubtless constitute the most natural diet for man, as they can be eaten and digested without any preparation whatever; for in the process of ripening fruits and nuts, nature does for the starch and other elements contained in them precisely what cooking does — the process of ripening being nature's process of cooking. More than that, the process of natural digestion is partially performed by the process of ripening. For instance, a green apple contains a large amount of starch, while it contains none at all when fully ripened, the starch being converted into dextrin, and then into sugar. It is also possible to eat grains without cooking, the digestion of raw starch taking place entirely in the small intestines.

Tea and Coffee the Cause of Indigestion. — Evidence against tea and coffee as well as other narcotics and stimulants is constantly accumulating. Not long since a distinguished German physiologist conducted a long series of experiments for the purpose of determining the influence of tea and coffee upon the artificial digestion of food. He found that when tea was added to a mixture capable of digesting ninety-two per cent. of albumin, the quantity was reduced to sixty-six per cent.; with the addition of coffee, to sixty-one per cent.; from which it appears that the use of tea and coffee must diminish the digestive work of the stomach at least one third. The habitual use of drugs which thus impair the digestive vigor must finally lead to hypopepsia and a variety of digestive disorders.

Two Classes of Degenerates. — An Italian poet, Corrado Capadino, divides society into two classes,— those who eat too much and work too little; and those who eat too little and work too much. Both classes suffer because of the lack of a proper adjustment of their working and eating habits. It is probable, however, that the man who eats too much and works too little suffers most seriously, and receives the greatest amount of permanent damage, since his gormandizing is a much grosser form of physical wrongdoing than that of the man whose scanty income does not allow him a sufficiency of nourishing food. It is undoubtedly true that many more persons die from vicious and excessive eating than from starvation or an insufficient dietary. Gluttony brings its own punishment in premature senility or degeneration of the vital organs. Nature can far better tolerate an occasional fast than a daily gormandizing.

Down on the Oyster.—Under this heading the Sunday *News-Tribune* of Detroit, Mich., remarks as follows: —

"Many scientific men are waging a relentless warfare against the oyster. Its diet is said to consist of the offal of the ocean, which is so noxious in character that a liver constituting nearly one half the bulk of the body is kept working unceasingly to protect it from impending death. It is recommended as a wholesome food for cormorants, fish-hawks, and turkey buzzards, but science as well as nature and analogy is now teaching us that the human stomach was never intended to be a sepulcher for scavengers."

We heartily endorse the views of the *Tribune*, and it is refreshing to note that the newspapers as well as the medical journals all over the country are taking up the cudgel against the oyster. The oyster ought to be hit a blow strong enough, not simply to crack its shell, but forever to knock it out of the bill of fare for human beings in civilized lands. The habit of eating this bivalve must be a vestige of the barbarous and cannibalistic state in which our forefathers lived when they roamed the wilds of Great Britain clad chiefly in war-paint, and subsisting upon their enemies.

It is an open secret that the oyster is responsible for frequent outbreaks of typhoid fever. It has been proven by scientific investigation that the oyster is infected with cancer and typhoid fever germs, along with other filth upon which it feeds, and that it carries the live germs about with it in its stomach and intestines for weeks at a time.

The death of an oyster eaten raw and "on the half-shell," is a truly murderous one, indeed the very refinement of cruelty. One can scarcely imagine anything more horrible than the fate of a creature quartered alive, then swallowed into the stomach of another animal to be destroyed inch by inch, so to speak, by the corrosive action of its powerful digestive juices; — but the oyster gets even with its tormentors by infecting them with disease.

COPPER IN CANNED PEAS.

THE London *Lancet* has recently called attention to the fact that canned peas often contain copper, which is added to give them a perfect green color. A grocer was recently convicted in England for selling canned peas which contained more than three grains of copper to the can. Since more than twenty million cans of peas are annually consumed in England, it would appear, if all canned peas are adulterated to an equal extent, that the English people consume with their food more than four tons of copper yearly. This is certainly something appalling, and a knowledge of this fact ought to make the British Lion roar loud enough to frighten the adulterators of food stuffs into compliance with the law.

The quantity of canned peas consumed in this country must be even greater than in England, and there is no doubt that considerable quantities of copper are consumed with them. Those who use canned goods should be sure that they are the pure article.

The managers of the Battle Creek Sanitarium, who use some thousands of cases of canned goods annually in feeding their great family, have become so aroused to the importance of taking extraordinary precautions upon this point that they have erected a large cannery plant of their own. The experiment made in operating the cannery last year was so successful that operations will be conducted on a still larger scale the present season. Those who have been so fortunate as to have an opportunity to sample the choice products of the Battle Creek Sanitarium Health Food Company's cannery are astonished at the difference between goods which are prepared from prime, fresh products received direct from the farm, and those made up from stale vegetables obtained at a low price in a glutted market, and which require "doctoring" of various sorts in order to make them salable.

Hot or Cold Bathing after Meals.— Especial mention should be made of the injury to the digestive organs quite certain to result from taking either a hot or a cold bath soon after eating. Few people are aware of the danger of laying the foundation for years of discomfort in this way. If a bath be a hot one, the stomach will be deprived of the blood necessary to support the rapid secretion of gastric juice for the digestion of the food, by its being drawn to the surface of the body by the sudden relaxation of the capillaries and small vessels of the skin. A cold bath, on the other hand, or any sudden exposure to cold, may, by causing contraction of the blood-vessels of the surface of the body, cause sudden congestion of the stomach, which is equally fatal to good digestion. Very nearly the same danger exists from bathing just before a meal.

The practise very common among boys and young men, of going into the water in the summer-time, regardless of the condition of digestion or other conditions of the body, is a bad one. With many it is a very usual practise two or three times a week, if not oftener, to go into the water immediately after the evening meal, not even allowing time for the work of digestion to become established. No bath involving any considerable portion of the body should be taken within two hours after a meal, except by the advice of a physician.

Bad Cookery. — As one of the most potent causes of dyspepsia, bad cookery deserves first mention. The real object of cooking is to render the elements of food more digestible. It is intended, indeed, to be a sort of partial preliminary digestion of the food; but the numerous devices of cooks and caterers, complex compounds, and indigestible mixtures, have so far subverted the original design of the process as to render cooking a means of making food indigestible as often as otherwise. Altogether too little attention is paid to the subject of cookery as a science. In the majority of cases the task of preparing food for the palate — the stomach is seldom thought of — is intrusted to ignorant servant girls or colored cooks, who compound mixtures by "the rule of thumb," and without any reference whatever to the physiological wants of the body. We are glad to see a slight indication of reform in this direction in the establishment of schools of cookery in the larger cities, and lectureships on the subject in some of our female seminaries. To become a good cook requires as much native genius and far more practical experience than to become a musician or a school teacher, or even to enter some of the learned professions. The position of cook ought to be made so respectable and lucrative that it will attract persons of sufficient mental capacity and culture to make the art subservient to the purposes for which it was first employed and designed. A bad cook in a family is a worse enemy to the health, the comfort, and even the morals of the household, than would be a swamp generating malaria a half mile away, a cesspool fevernest at the back door, smallpox across the street, or a Chinese Joss house in the next block. Give us good cooks, intelligent cooks, cooks who are thoroughly educated, and we will guarantee the cure of nine tenths of all the dyspeptics, without money and without medical advice.

Consumption in Goats.— It has heretofore been supposed that the goat is practically proof against tubercular disease, but Bulling, a German physician, recently records a case of elementary tuberculosis in which both lungs were adherent, and a considerable portion of the lungs was filled with tubercular masses. The goat was six years of age, and was daily driven to town, where it furnished milk for invalids, a class of persons who are most susceptible to tuberculosis. It is evident that goat's milk requires sterilizing as much as cow's milk.

ANSWERS TO CORRESPONDENTS.

DIET ON A BICYCLE TRIP. — A correspondent asks: "During a four-hundred-mile bicycle trip should meat form a part of one's diet? If not, what dietary would you recommend?"

Ans. — No. The vegetarian is always the winner in a long-distance race. Hunting dogs are fed on corn-meal mush to give them good wind. T. F. Barnett, of Chicago, one of the leading champion long-distance riders, is a strict vegetarian. The winners of the long walking match from Berlin to Vienna were strict vegetarians. A meat-fed animal succumbs early to fatigue because of the tissue poisons contained in all dead flesh. A diet of fruits, nuts, and grains is the best. Granose, bromose, malted nuts, or ambrosia, and fruit constitute an ideal diet, and make a feast fit for a king.

OLIVE-OIL. — 1. Is olive-oil healthful as an article of diet? 2. Is it a good substitute for nut butter and maltose?

Ans. — 1. Pure olive-oil is almost unobtainable. The olive-oil of commerce is adulterated corn and cottonseed oils. All free fats are hard to digest. Unless freshly made, free oils are practically certain to be more or less rancid, and hence very objectionable.

2. Nut butter and nuttose are not simply fats, they are complete foods, and are natural products; and being perfectly emulsified, are more easily assimilated than free fats of any kind.

EAR TROUBLE FROM SCARLET FEVER — NASAL CATARRH. — 1. What instrument would you advise for a child of eleven years whose hearing has been affected by scarlet fever? The left ear discharges; and although the right ear does not discharge, the child is quite deaf. 2. How should cinnamon oil be used when employed as a remedy for nasal catarrh?

Ans. — 1. A good specialist must be consulted. Washing out the ears with a weak solution of soda, and packing with dry boracic acid in powder will usually stop the discharge. Renew the treatment daily.

2. With the vaporizer, which may be obtained of the Sanitary Supply Company, Battle Creek, Mich.

FORMALDEHYDE. — Please me give your opinion of this disinfectant.

Ans. — It is doubtless the best, and will probably supersede all others for disinfection of rooms.

INFLAMMATION OF THE STOMACH. — 1. Please advise me as to treatment for chronic inflammation of the lining membranes of the stomach and the nervousness resulting therefrom, and also for chronic constipation. 2. What diet would you recommend for one in this condition?

Ans. — 1. You need to take a test-meal and a course of treatment at a sanitarium for the treatment of disorders of digestion.

2. A diet of granose, bromose, ambrosia, and fruits would be best.

CONGESTION OF THE LIVER. — 1. Is chronic congestion of the liver accompanied with aching, dull pains in the region of the liver? 2. What is the leading symptom of congestion of the liver of long standing? 3. Which is the more injurious as food, butter or mild cheese?

Ans. — 1. Not necessarily.

2. Not a common condition. Such cases are usually caused by catarrh or inflammation of the stomach and intestines.

3. Butter is bad; cheese is worse.

NERVOUS DYSPEPSIA. — What diet would you recommend for a person suffering from what seems to be nervous prostration? Meat-eating has been discontinued, since which time there has been slight improvement. The trouble has existed seven or eight years; and the spine seems to be affected as well as the stomach. Only two meals a day are taken, and then the food seems to remain in the stomach for eighteen hours after eating. The patient is thirty years of age, but unable to bear either mental or physical strain.

Ans. — A careful investigation, especially a test-meal to determine the condition of the stomach, should be made, and then a

course of rational treatment at a sanitarium. Even a week or two would be helpful as a start. Very likely the case is one of hypopepsia, a curable disease, but one not easy to cure. A copy of the editor's little work on "The Stomach" might prove helpful.

DILATED STOMACH.— 1. What diet would be best for a man suffering from the following symptoms: Bloating; tightness about the waist; bloodshot eyes; buzzing sound in the head; splashing sound in the stomach? 2. Is it harmful to wear the wet bandage right after eating fruit? 3. Should a patient with a dilated stomach eat strawberries either raw or cooked, rhubarb, or cranberries? 4. I have been using some free sugar for the last three months; could that be the cause of my troubles? 5. Is there any hope that these symptoms can be gotten rid of?

Ans.— 1. Eat but two meals a day, seven hours apart, the last meal not later than 4 P. M.

2. No.

3. Strawberries are wholesome; the other articles are not.

4. Yes.

5. Yes. Eat dry food, such as granose well toasted, bromose, fruit, and nut foods.

COLD WATER AT MEALS.— A correspondent in California wishes to know (1) the effect upon digestion of drinking cold water just before, at, or immediately after meals; also (2) the length of time that should elapse after a meal before drinking.

Ans.— 1. Extremely bad. It stops digestion, and encourages fermentation.

2. An hour or two in hyperpepsia; a longer time in hypopepsia. See "The Stomach" for a full discussion of this subject.

BLADDER DIFFICULTY.— A correspondent asks for a remedy for bladder trouble. He has been taking Dr. Hobb's Asparagus Kidney Pills, Holland Oil, and Buccu leaves.

Ans.— The patent nostrums, and others of like character, which our correspondent mentions, are not curative of bladder troubles, and are often injurious when their use is long continued, tending to produce disease of the kidneys by over-taxing these organs. The patient should have a careful examination of the urine made by a competent physician. The rational treatment of the bladder consists for the most part in a regulation of diet, general baths, sitz baths, and, in cases of catarrh of the bladder, bladder douches. We can make no definite prescription for this case, having no detailed statement of symptoms.

EGGS — GRAPE SEEDS — DIET FOR CONSUMPTION — DANDRUFF — COCA DRINK.— 1. Do eggs clog the liver? 2. Is it dangerous to swallow grape seeds? 3. Please outline a diet for a consumptive in the first stages of the disease. 4. Is the drink made from coca leaves healthful?

Ans.— 1. No. Eggs are not always well digested; as the result, decomposition takes place in the stomach, and the large amount of poisons resulting overwhelms the liver and disturbs its functions. It is only in this indirect manner that eggs may disturb the liver. It is thus that eggs produce biliousness in some persons.

2. No.

3. The diet is of the utmost importance for a person in the first stage of consumption, as this is the hopeful time for a cure. The most important thing that can be done for the patient is to secure such regulation of the diet as will combat the tendency to emaciation; hence fat- and blood-building foods are especially needful. Juice of beefsteak and cod-liver oil are commonly recommended for this condition, but we do not agree in this recommendation. An experience of many years in the treatment of this class of patients leads the writer to believe that beefsteak is injurious rather than helpful; and that cod-liver oil has no specific virtues whatever. We recommend the use of nuts and nut preparations as in the highest degree fattening and blood-making. Bromose and maltose are especially to be commended. (These foods can be obtained of the Sanitas Food Co., Battle Creek, Mich.) Fruits and grains are also adapted to this condition.

4. No; it contains cocaine, a very poisonous drug.

LITERARY NOTICES.

No question is more insistent at the present time than the relations of corporations to labor. Octave Thanet, who has been for years a student of the problem between workingmen and capital, in a practical way, has written five short stories on phases of the subject for *Scribner's Magazine*. The first of these appears in the June number. The series will be illustrated by A. B. Frost. Montgomery Schuyler also writes in this issue of "The New Library of Congress," as seen by an expert in art and architecture. Peixoth has made a series of sixteen drawings for the article, which are considered the best pictures that have yet been made of the noble building. Charles Scribner's Sons.

IN *Table Talk* for June, "Edible Weeds and How to Cook Them," by Ethel Ramsey, gives information that all good housekeepers appreciate; while "Canning and Preserving," by Miss Joyce, a noted authority, gives recipes and careful instruction for canning for the month of June. The recipes and menus given in the "Housekeepers' Inquiry" department must surely meet the wants of its readers, as they are given in response to their own requests. An unusually interesting article is a description of "A Noted Chinese Dinner" of twelve courses, given as an illustration of the Chinese Culinary Art, at a famous Chinese Restaurant in New York City, to Americans. A sample copy of the magazine sent free. Address, Table Talk Publishing Company, Philadelphia, Pa.

IN the *Youth's Companion* of June 10 appears No. 3 of the series of "Stories Told by Doctors," written by Sarah Hughes Graves, M. D. This touching narrative relates the thrilling experience of one of the brave missionary physicians (a woman) during the massacres of Christians in China, and tells how a little crippled Chinese girl whom the doctor had treated, was the means of saving her life. Incidentally, the terrible cruelties of the Chinese custom of foot-binding are also depicted in the article.

In the same issue the Rev. Edward Everett Hale gives an interesting chapter of reminiscences of his illustrious uncle, Edward Everett, for whom he was named.

THE *Arena* for June is perhaps not quite so varied in it contents as usual, but it makes up for this by an unusually full and thorough discussion of several important topics. The number leads off with a paper by the Hon. James D. Phelan, mayor of San Francisco, on "Municipal Conditions in California," which concludes the valuable series of articles on municipal reform written by various city mayors, which have been appearing in the *Arena* during the past few months. Dr. David Starr Jordan, president of Leland Stanford Junior University, in an article on "The Heredity of Richard Roe," demonstrates how, in any given person, the laws of heredity work out with regard to the transmission of ancestral qualities from both the paternal and the maternal sides. In "The Children of the Other Half," Professor Hull of Swarthmore College, Pa., gives an interesting and sympathetic account of the condition and life of the children of the poor in the slums of New York, and of the efforts which are being made by charitable societies to ameliorate their lot. ☐ Arena Publishing Company, Copley Square, Boston.

PUBLISHERS' DEPARTMENT.

THE BATTLE CREEK SANITARIUM GOOD HEALTH CLUBS.

IT is probably not generally known to the public that the Battle Creek Sanitarium, while recognized as one of the leading medical institutions of the United States, is also engaged in an extensive educational work. The institution expends all its earnings in missionary and philanthropic work in the direction of sanitary and medical reform and scientific research. It maintains a first-class medical college in Chicago for the education of medical missionaries, with nearly one hundred medical students under its supervision, all in training for medical missionary work. It conducts the Battle Creek Sanitarium Training-School for Missionary Nurses, with an attendance of nearly three hundred pupils, — probably the largest training-school for nurses in the world. It maintains a free School of Cookery with an average attendance of about one hundred pupils, and publishes an extensive series of tracts, books, and periodicals in the interests of medical progress and sanitary reform. It has created, and supports, an extensive laboratory for bacteriological, biological, and chemical research in relation to the causes of disease, food laboratories for the study of foods and their dietetic properties, the development of new foods, and the examination of foods and drinks with reference to their wholesomeness, and other lines of research.

During the last three years nearly two hundred young men and women have been sent out as physicians, visiting nurses, lecturers, teachers of cooking-schools and physical culture, and health missionaries in various other lines, to promote the principles of healthful living.

One of the most recent enterprises undertaken by the management of this extensive and many-sided philanthropic work is the organization of Good Health Clubs, which will be conducted in connection with the publishing department of the institution known to the public as the *Good Health Publishing Company*.

Our Plan.— 1. We propose to organize, in every leading city in the United States, a Good Health Club of one hundred or more members.

2. No dues will be exacted of members, and no pledges. Each person who becomes a subscriber to the GOOD HEALTH magazine thereby becomes a member of the club.

3. By special arrangements with publishers, merchants, chemists, and others, various advantages are offered free to members of Good Health Clubs, which are not easily accessible otherwise, even at large expense.

4. When desirable, arrangements may be made for monthly or more frequent meetings of clubs for the discussion of various hygienic and sanitary questions, and also for the organization of cooking-schools, classes in physical culture, dress clubs, and similar groups of persons interested in the consideration of special topics pertaining to health culture and physical training.

5. When desirable, arrangements will be made for furnishing members of the clubs with special privileges or advantages, such as a regular supply of milk from carefully inspected dairies, health foods, etc.

ADVANTAGES. — 1. Each member of a Good Health Club will receive, regularly, for one year, one copy of GOOD HEALTH, the oldest and most popular scientific health journal in the United States.

2. The Laboratory of Hygiene connected with the Battle Creek Sanitarium places its resources at the disposal of the members of the Good Health Clubs, and will undertake to make analyses of foods for the detection of adulteration; analyses of water for the detection of germs and other impurities; and examination of stomach fluids in cases of disordered digestion, when sent under the direction of the family physician, making therefor the nominal charge of $1 for each examination, which is barely sufficient to pay the cost of the materials employed.

For further instructions, address Good Health Publishing Company, Battle Creek, Mich.

PROGRAM FOR SCHOOLS OF HEALTH,

TO BE CONDUCTED BY THE GOOD HEALTH PUBLISHING CO., UNDER THE AUSPICES OF THE BATTLE CREEK SANITARIUM GOOD HEALTH CLUB.

The course will consist of two practical lessons or drills and one illustrated lecture each day.

LECTURES.

1. Our Foods and How We Digest Them.
2. Common Errors in Diet.
3. Cultivated Deformities.
4. The Gospel of Health, or "Religion in a Loaf of Bread."

5. Healthy Homes.

Any one of the following subjects may be chosen in place of any of the above, at the option of the club: —

How to feed a Baby.
First Aid to the Injured.
How to Live a Century.
Special Physiology and Hygiene for Men.
Special Physiology and Hygiene for Women.
Social Purity.

COOKERY.

1. *Toothsome Breads without Yeast or Chemicals.* — Gems, rolls, sticks, crisps, and beaten biscuit. Everybody who has seen the results of the new method of bread-making is surprised and astonished to find that the most delicate and toothsome breads imaginable can be made without yeast, baking-powder, or any similar deleterious raising material.

2. *Soups.* — Tomato, pea, lentil, vegetable, fruit, potato, rice, barley, etc. A long list of most delicious and wholesome soups, palatable enough for the most exacting, and acceptable to the most fastidious and delicate stomach, all without greasy soup-bones or nauseating meat extracts or dyspepsia-producing "stocks."

3. *Grains, Fruits, and Desserts.* — A most important lesson, which is a surprising revelation to those who have never learned the possibilities of scientific cookery applied to the preparation of grains and fruits, the most important and wholesome of all food substances, and the most delicate and toothsome, yet perfectly wholesome, desserts.

4. *Health Foods.* — What they are, how they are made, and how to use them.

PHYSICAL CULTURE.

1. How to Acquire a Strong, Dignified, and Graceful Physical Bearing. How to Walk and How to Sit.

2. How to Develop a Good Physique, Large Lungs, and a Strong Heart.

3. Corrective Exercises for Round Shoulders, Flat or Hollow Chest, Forward Carriage of the Hips, Spinal Curvature, Weak Waists, and Prolapsed Stomach and Bowels.

SIMPLE REMEDIES FOR HOME USE.

1. Water-drinking, How and When. The Bath as a Tonic. Hot Baths; Cold Baths; When and How to Use. How to Relieve Pain. How and When to Use the Ice-bag, Fomentations, etc.

2. How to Cool a Fever Patient. How to Stop a Sudden Hemorrhage. How to Treat a Burn.

3. How to Apply Bandages. The Universal Bandage, etc. How to Dress a Wound Antiseptically.

SUPPLEMENTARY COURSES.

In addition to the above, when desired, supplementary courses lasting one week will be organized upon such terms as may be arranged by the agent, at which instruction in the subjects above named will be continued, following the same general program, or any of the following subjects may be taken up, as may be desired by a majority of the members of the club: —

1. Practical Work in Scientific Cookery, in which the club is divided into small practise classes, each class having an opportunity to do actual work under an instructor.

2. A Short Course of Instruction in Swedish Gymnastics, Delsarte, Calisthenics, Indian Clubs, Dumb-bells, or Other Forms of Gymnastics.

3. Practical Instruction in Hydrotherapy.

4. Instruction in the Home Use of Electricity.

5. Instruction in Various Forms of Massage, as Facial Massage for the Removal of Wrinkles, Abdominal Massage for the Replacement of Prolapsed Bowels, Stomach, etc.

EXPERIMENTS AND ILLUSTRATIONS.

A powerful microscope will be employed, showing disease germs and the various minute structures of the brain and other organs; the lectures and practical lessons will be illustrated by means of charts and chemical and other experiments and demonstrations.

TERMS.

Every member of a Good Health Club is entitled to receive instruction in a regular course for one week. Every person who purchases books or literature to the amount of $3 or more is entitled to two weeks' instruction, provided the number of such persons is sufficient to form a class of twenty-five or more.

Private Instruction. — Small classes may be formed for private instruction in any of the subjects named, for which special arrangements may be made on favorable terms with the teachers.

For further information, address The School of Health, Battle Creek Sanitarium, Battle Creek, Mich.

THE LOISETTE MEMORY SYSTEM.

THERE are probably few of our readers who have not heard something of this remarkable memory system, invented by Professor Loisette and taught by him to many thousands of people in all parts of the world. Heretofore it has only been possible to become acquainted with this system by either personal instruction from an authorized teacher of the company, or by correspondence, but the whole sys-

tem is now embodied in a book of 170 pages, in which it is so lucidly expounded that any person of ordinary intelligence can easily master it in two weeks' study.

A good memory is a necessary foundation for every profession in life. Indeed, without a good memory it is impossible for any person to attain eminence or even expertness in any calling. The Loisette memory system adapts itself to every class of circumstances in which the memory must be relied upon, and is unquestionably the most perfect system which has been devised for aiding the memory. The Loisette system has the distinct advantage over all others in that it is based upon physiological principles, and that it strengthens the natural memory rather than weakens it, which is the effect of the great majority of memory aids.

Having personal knowledge of this system, the writer can heartily commend it to be all that it claims to be, and it is fortunate for the world that it is now made so readily accessible. Students especially will find this system a great aid, particularly in the study of history, and in science and language study. This wonderful system, a knowledge of which formerly cost $20 to $25, may now be obtained for $2.50 by addressing Professor A. Loisette, 237 Fifth Ave., New York City.

MICHIGAN IN SUMMER.— Northern Michigan has increased in popularity as a place for summering, not only on account of the climatic conditions, but because it provides such a variety of pleasures for such a variety of people. With the opportunities so great for the enjoyment of congenial society, the fishing, boating, bathing, the excellence of the hotels and clubs, the comforts of cottage life, there is no chance for monotony. The climate, owing to the proximity of the Great Lakes and the latitude, is nowhere equaled for the invigoration of tired and wornout humanity.

Send for illustrated descriptive matter giving information about the different points, lists of hotels, rates of fare and train service of the Grand Rapids & Indiana R'y, the line reaching all the resorts, the route of the Northland Express, the fast vestibuled train, carrying through sleepers from St. Louis, Cincinnati, Louisville, Indianapolis, and Chicago to Petoskey and Mackinaw. Address, C. L. Lockwood, G. P. and T. A., Grand Rapids, Mich.

Daughter—"Yes, I've graduated, but now I must inform myself in psychology, philology, bibli—"

Practical Mother—"Stop right where you are. I have arranged for you a thorough course in 'roastology,' 'boilology,' 'stitchology,' 'darnology,' 'patchology,' and general domestic 'hustleology.' Now get on your working clothes."— *Detroit Free Press.*

PEOPLE used to think that the time to take a holiday vacation or outing was in the summer time, but that's an old fogy idea now, for as you come to know the wonderful attractions of the Pacific Coast a winter trip to California is developing into the proper thing. If you have never tried it, try it next winter. Get out of the snow and blizzards and the pneumonia belt for once. It may mean health and prolonged life to you. It certainly will mean a great deal of pleasure and much valuable experience. Go by way of New Orleans and the Southern Pacific, which is, by all odds, the most desirable and most attractive winter route. It leads you through the semi-tropic regions of a beautiful country; through the most wonderful and interesting section, and the splendid Sunset Limited semi-weekly train service of the Southern Pacific affords not only the fastest time but the most delightful environment the tourist can find. Only 58 hours to Los Angeles; 75 hours to San Francisco. Send to W. G. Neimyer, Gen. Western Agent Southern Pacific Co., 238 Clark St., Chicago, Ill., or to S. F. B. Morse, General Passenger Agent at New Orleans, and get descriptive literature that will tell you all about the way and the train.

LITTLE Marguerite heard callers talking of a neighbor who had died of apoplexy. That night she was ill from overindulgence in apples. The next day her playmates offered her some, but she shook her head and said, "No sir-ee, no apples for me, I don't want to die of appleplexy."

THE THREE GREAT CONVENTIONS.

The Young People's Society of Christian Endeavor meets at San Francisco, Cal., July 7–12.

National Educational Association at Milwaukee, Wis., July 6–9.

Benevolent and Protective Order of Elks at Minneapolis, Minn., July 6–9.

These are all national conventions, and delegates and others interested should bear in mind that the best route to each convention city from Chicago is via the Chicago, Milwaukee & St. Paul Railway. Two trains daily via Omaha to San Francisco; seven through trains daily via four different routes, Chicago to Minneapolis; six daily trains, Chicago to Milwaukee. Choice of routes to California, going via Omaha or Kansas City, returning via St. Pau and Minneapolis. Through trains vestibuled

and electric lighted. All trains run on Absolute Block System. Low excursion rates to each convention. Ticket agents everywhere sell tickets over the Chicago, Milwaukee & St. Paul Railway or address Harry Mercer, Michigan Passenger Agent, Chicago, Milwaukee & St. Paul Railway, 7 Fort St., W., Detroit, Mich.

DR. OLIVER WENDELL HOLMES once made an address in his native town to a medical association. The president of the association was the son of a man who had been the druggist of the village when Dr. Holmes had studied medicine there. "It is good to look at this young man," said the genial autocrat, "and trace his father's liniments in his face."

CREAMERIES IN SOUTH DAKOTA.— During the past two years the creamery industry has grown from a small beginning until at the present time there are one hundred and nineteen (119) creameries and cheese factories scattered over the State, and all doing well.

Four times as many creameries are needed in South Dakota, and farmers or dairymen desiring free list showing where creameries are now located, together with other information of value to live stock growers and farmers generally, will please address Geo. H. Heafford, General Passenger Agent, C., M. & St. P. R'y, 410 Old Colony Bldg., Chicago, Ill.

GERMS ON THE TONGUE.— What is the significance of a coated tongue? It means germs — not only on the tongue, but in the stomach, and perhaps all along the alimentary canal. The bad taste in the mouth which accompanies the coated tongue is due to poisonous substances produced by the germs. These poisons are produced in still greater quantity in the stomach; and when absorbed into the blood, give rise to giddiness, specks before the eyes, headache, cold hands and feet, palpitation of the heart, backache, sediment in the urine, heartburn, sour stomach, flatulence, nausea, loss of appetite, and a great variety of other symptoms. A yellow or brown coat on the tongue is as much due to germs as is the green mold on the wall or the scum on the surface of a stagnant pool. Powerful medicines will remove the germs temporarily, but they quickly return. The only way to get rid of a coat on the tongue, and the germs in the stomach which accompany it, is to be found in a proper regulation of the dietary. The best food thus far discovered for getting rid of germs is Granose. Everybody likes Granose. It is crisp, delicious, and satisfying.

RATHER AMUSING.— The Detroit *Herald of Commerce* remarks that it is rather amusing to note the claims made by certain manufacturers of substitutes for coffee that they are the originators of the term "cereal coffee," "the use of which dates back to the days of our grandmothers, when many of the present manufacturers were not old enough to detect the difference between lacteal fluid and coffee."

We wish to add that some of the parties referred to seem to have not yet become old enough to recognize the difference between honorable and dishonorable methods, between legitimate and illegitimate business. We have only to suggest for the due consideration of some of these amateur "food experts" that it is possible to blow a bubble until it bursts. Several incipient coffee bubbles have already burst before having reached more than very small proportions, and bigger ones are exhibiting very pronounced symptoms of approaching the bursting point.

BLUE blood may be a sign of good pedigree, but red blood is a sign of good health. Good blood can be made only with good food,— that which contains all the blood-making elements, and in their proper proportions.

Granola and Granose, the two modern foods, as now perfected by the Battle Creek Sanitarium Health Food Company, contain the elements of bone, brain, muscle, and nerve tissue; and besides being wholesome, are exceedingly palatable. They are thoroughly cooked and always ready for use, and are easily digested, even by weak stomachs.

THOUSANDS of good people are constantly suffering from the ill effects of tea and coffee. All such can find relief by using Caramel-Cereal, a delicious and wholesome substitute, entirely free from injurious properties, which may be safely used by both old and young. In many families it has entirely superseded tea and coffee.