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GOOD HEALTH

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The Children's Room — *Illustrated.*
Health Fads.
A People of Castes — *Illustrated.*
Poisons and Stimulants.
The Battle Creek Sanitarium and Its Work — *Illustrated.*
Oil and Its Uses in the Tropics.
The Hygiene of Roman Homes — *Illustrated.*
Nature in Disease.
Fggs, and How to Cook Them.
Some Recent Experiments in Alcohol.
A Chinese Suggestion in Diet.
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Progress in the Antitobacco Movement.

MENS·SANA·IN·CORPORE·SANO·

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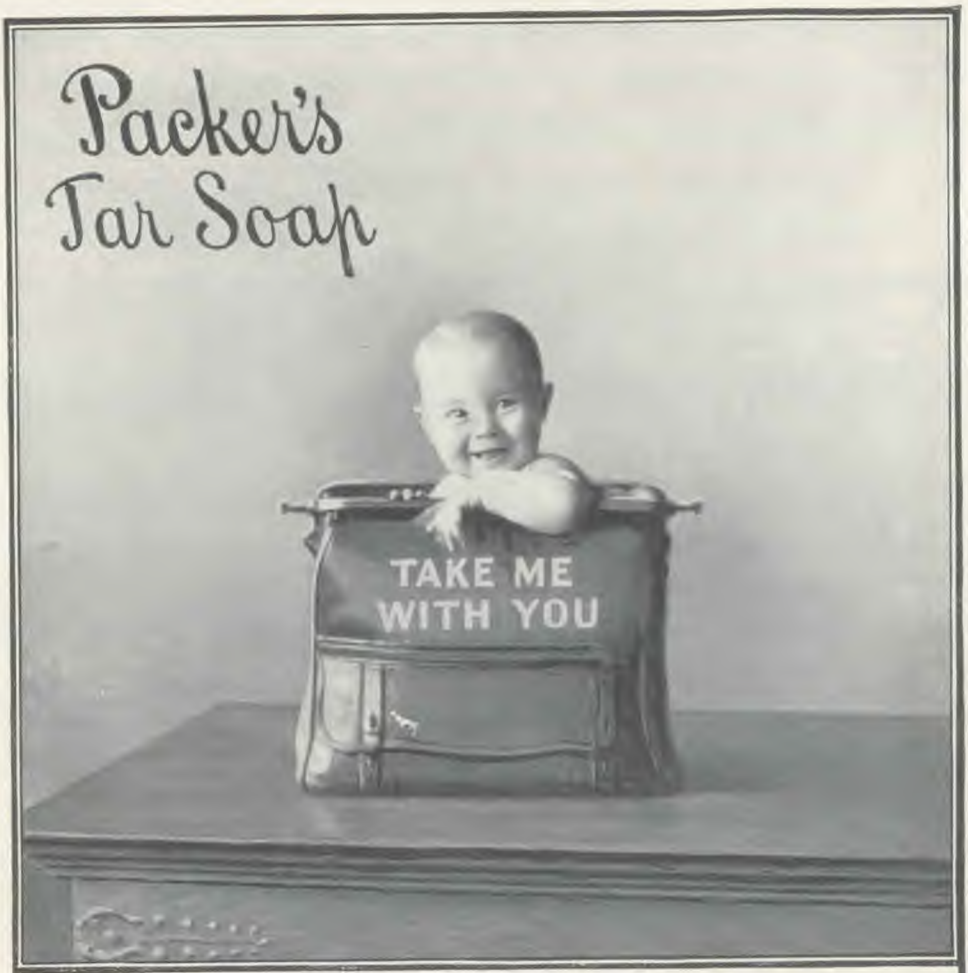

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GOOD HEALTH

A Journal of Hygiene.

VOL. XXXVII. APRIL, 1902. NO. 4

HEALTH FADS.

BY J. H. KELLOGG, M. D.

THE world is full of whimsical notions in regard to health. There is probably no other question, if we may possibly except religion, concerning which so many stupendous errors are rampant in the public mind. There is no indigestible mixture of condiments and French cookery which has not been recommended by somebody as being especially healthful. The most evil practices in relation to diet have had the indorsement of some who profess authoritative knowledge. We seem to be living in an age of fads. Starting with an idea which furnishes a small foundation, the fad doctor proceeds to construct a gorgeous theory, which, when it is completed, very closely resembles a hay stack resting on a fence post.

The exclusive meat diet is an exceedingly harmful fad of this sort, which is responsible for making a large number of people miserable with rheumatism, neuralgia, sick headache, nervous prostration, and a number of other maladies which are the outgrowth of uric-acid poisoning.

The no-breakfast plan and the raw-diet fad are less harmful notions, but possess little better foundation in scientific fact. The stomach of a man who eats a hearty six o'clock dinner is in no way fit for breakfast the next morning, and is in greater need of nothing more than a good rest. The sensible way, however, is to omit the six o'clock meal, taking instead a little well-ripened fruit, and nothing else, avoiding cream and cane sugar. Some foods may be eaten raw without injury, and in some cases even with advantage. Fruits and nuts are by nature prepared for digestion without the aid of cookery, while dry grains and vegetables cannot be well digested by the human stomach without the aid of the preliminary digestive processes, which may be effected by exposure to moist or dry heat. The sunshine coming out of the glowing fire does for the starch of the vegetable and the grain exactly what the heat of the sunlight does for the starch of the green fruit. It dextrinizes it, and thus prepares it for prompt digestion by the human stomach. It is just as reasonable to feed a dog on dry grains and grass as for a man to undertake to subsist upon a similar dietary. Man is naturally a fruit- and nut-eating animal. Dry grains and herbs in a raw state are adapted to animals who have stomachs especially adapted to the digestion of such foods. The goat, with its four-stomach-power digestive apparatus, is able to make sugar out of paper, and to extract a mild sort of nourishment from dry-goods boxes. In other words, it can live and thrive, for a time at least, on wood and water.

The same is true of sheep, cows, and other herbivorous animals. Even horses, although their digestive apparatus is less

complex, are able to digest wood to a certain extent. But the human stomach, like that of the ape, gorilla, and chimpanzee, is adapted to the digestion of more elaborated and easily assimilable foods. Those animals which ilve on coarse herbage and raw grains must devote a large share of their energy to the extraction of nutriment from their crude diet. The process of developing energy from corn and hay is a very slow one. The energy of fruits and nuts is more readily available. The sugar of fruits is already completely digested, and being quickly absorbed, shows its presence in the body by an immediate increase in energy and working ability. By contact with the digestive fluids, the dextrin which abounds in fruits and nuts is almost instantly changed into sugar, which represents energy in a form immediately available.

Probably many persons have experienced benefit by a change from their ordinary fare to a raw diet, chiefly through the fact that the change was equivalent to a mild starving process, which, in a person whose tissues have been filled with uric acid and other tissue cinders through flesh eating and overeating, is a sovereign remedy, superior to every other that can be suggested.

Fasting cure is another fad which has recently broken out in various parts of the country. This, like the no-breakfast notion, is not very likely to be productive of serious injury for the reason that in this land of plenty, where foods are cheap and readily available, multitudes of people are suffering from overeating, and are likely to be benefited by a few days' abstinence from food, which gives nature an opportunity to gather up and consume the cinders in the shape of uric acid and other half-burned wastes with which the tissues are clogged.

Truth in relation to diet, as well as in relation to everything else, must be wrought out on the anvil of life by the hammer of actual experience. Unfortunately, the majority of modern philosophers seek truth by the same method by which the spider makes its thread,—by a sort of spinning process. A teacher in a mission school in Burma once asked a native boy who had an unusually bright composition, if he composed it himself. "Yes," said the lad, rising in defense of the originality of the composition, "I pulled it out of my own stomach." A great share of the theories exploited in these modern days have the same origin as the boy's composition, and often afford evidence of indigestion in a very advanced stage.

Truth is to be discovered by observation rather than by meditation. It is true the facts of experience must be well considered and digested, but real truth is the outgrowth of actual life rather than of cogitation. No theory can be safely trusted as a rule of life until it has been tested by actual experience, and even then is hardly a safe criterion, for it sometimes takes a generation or two to test the validity of a philosophy or the truth of a proposition. Unquestionably, millions of people have died in the attempt to prove by experience the truth or untruth of views which have been accepted on the strength of authority. The only safe way is to refuse to recognize as truth any proposition which cannot be shown to be the outgrowth of well-established fundamental principles or well-considered human experience.

KOOMARS GOING TO MARKET.

CURIOUS CUSTOMS AMONG THE BENGALESE.[1]

BY M. W. BACHELER, M. D.

MANY, many years ago, when the Hindus were first divided into castes, it seemed necessary, in order to keep up the sharp dividing lines, that there should be caste occupations, and so it came about that only those belonging to the "*Tali*," or oilman, caste made and sold oil, only the "*Kamars*" were workers in iron; only the "*Lapeets*" were barbers; "*Koomars*" had a monopoly of pottery making; "*Muchis*," of working in leather; "*Moyras*," of making sweetmeats; and so on throughout all the castes, though not all the members of a caste must necessarily follow the caste calling.

Caste laws are like the laws of the Medes and Persians, and they enter into the details of daily life, regulating, not only the ceremonies attending births, marriages, and deaths, but also in some cases the food, clothing, and jewelry. While it may be possible for a person of a higher caste to join a lower, no one of a low caste can ever rise to a higher. People of different castes may not eat together, though they may sometimes smoke together. If a person of low caste chances to touch a person of higher caste who is eating, the food must be thrown away. Sometimes, if even the shadow of a low-caste person chances to fall on one of higher caste, it makes him ceremonially unclean. People of different castes will not usually sit on the same rug or mat. They may, however, all bathe together,

[1] The accompanying cuts are used by courtesy of Rev. Z. F. Griffin and Rev. H. E. Wyman.

and wash their clothes in the same tank, and draw water from the same well.

The *Koomar* caste makes all the pottery — cooking vessels, water jars, flower pots, bathing pots, little jars for "*doy*," or curds, of which the natives are very fond, lamps, lamp stands, and at the time of religious festivals, the horses, elephants, dishes, and various figures and utensils that are required. After a death in the family, the orthodox Hindu throws out all the earthenware and buys new, so the *Koomar* has always a market for his wares. On market days many loads of earthenware are carried on heads and shoulders, to sell in the market place. The price varies from a fraction of a *pice* to four *pice* for each article. (A *pice* is a copper coin worth about half a cent.)

The "*Lapeet*," or barber, carries about with him, not only a razor, but instruments for cutting finger nails and toe nails, and for getting wax out of the ears. He visits his customers at stated intervals; and if on the way he is stopped by some one requiring his services, they sit down by the roadside, or wherever convenient, while he plies his trade. The "*Laptani*," or barberess, performs similar services for the women, and she also scrapes and pares the feet, and if required, puts a narrow strip of bright red around the sole. She is a welcome visitor in the seclusion of the zenanas, as she brings news and gossip from the outside world and from other zenana homes.

Sugar cane is a cold-season crop, when the sun shines all day. It requires much water, and so the fields are always by a stream or spring. Bears are fond of sugar cane; consequently, in the corner of the field may be seen a little thatched hut on a high scaffolding, where the watchman spends his nights. When mature, the cane is cut, and taken to the "sugar

A Barber at Work.

camp," which is a rude temporary thatch roof supported by bamboos, and covering the press and five or six kettles over a long hole in the ground, which is kept filled with fire. The press is made from two rude rollers of wood, and is worked by hand and foot. It makes a loud, squeaking noise that can be heard some distance.

Cleanliness and holiness have such different meaning to the Hindu mind from that conveyed to our understanding that the Hindu holy man, or *Sadhu*, seems to us a very unclean, unholy personage. His long, matted hair, which has not been combed or cut or washed since he took his vow, and his nearly naked, unwashed body, sometimes smeared with ashes, do not coincide with our ideas of cleanliness. Nor do his habits of meditation or penance appeal to us as having any holiness or virtue. His face shows nothing good, he is a slave to narcotics, his mouth speaks many vile words, and his life is impure and bad. As long as he keeps the laws of his caste, he is in good social standing, however vile his life may be, for the Hindu religion does not purify the heart and life, and the ascetic may be among the vilest of men.

The "*Chhutar,*" or carpenter, has so few appliances with which to carry on his trade that it is rather a matter of surprise when he can show a well-finished piece of work. The primitive method of sawing up logs into planks and boards is followed by an equally crude handling of other tools. Although teakwood (of which much of the furniture for European use is made), sesu (a hard, dark wood), and ebony are found in India, the more common woods are soft and of coarse grain, and unless thoroughly seasoned before being made up, are very apt to warp badly. So the native carpenter has other difficulties besides his lack of suitable appliances, in spite of all which, however, he often does creditable work.

A Sadhu.

The ordinary native hut is built with mud walls, and thatched with straw. In some parts of Bengal, the walls are of woven split bamboo, and thatched with coarse, strong grass. More pretentious houses have brick or stone walls, which may be two or more feet thick, and are covered with a roof of solid masonry. Strong beams of wood or iron are laid on the walls, two and a half to three and a half feet apart if of wood, five or six feet if of iron. These are connected by crosspieces about twelve inches apart, on which are laid tiles — flat, thin bricks about a foot square, which in turn are covered with ten or twelves inches of broken brick and lime which has been thoroughly wet and turned and stirred every day for a week. When this is spread evenly over the whole surface, a band of women with wooden mallets sit in rows on their heels, and pound it daily for a week. Finally a plaster of lime is spread over the whole, and carefully rubbed till smooth. Scaffolding and ladders are made of bamboo, and have an apparent precariousness that seems no hindrance to the carrying up of water in kerosene tins, and brick and mortar on the heads of the venturesome workers.

The poor women of the lower castes often do a great deal of the heavy work. They carry wood on their heads to the towns or markets for sale; sometimes it is like brushwood, sometimes larger pieces split ready for burning. It is always tied in bundles with a cord of stout bark, and sold at a varying number of bundles for a *pice* (a coin worth about half a cent). In some parts of the country, wood is sold by weight.

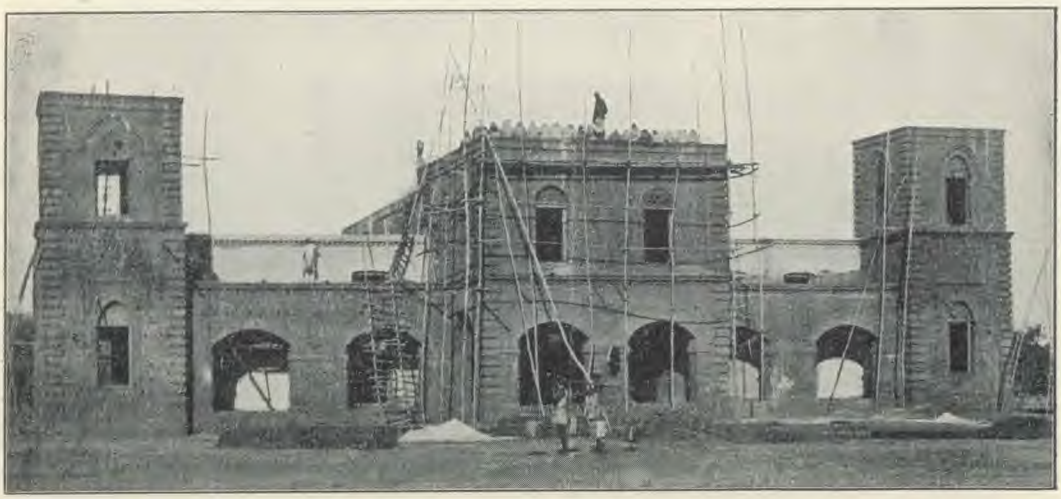
It is usually the women who go to the village well for water, which they draw in earthen water pots, called *kolis, ghurras,* or *chatties,* according to locality. Usually each woman carries her own rope. There is a masonry curbing built around the top of the well, which

THE PRIMITIVE METHOD OF LOG-SAWING.

may be round or square, and usually a beam or two is thrown across to stand upon while drawing water.

The number of wells in a village depends somewhat on the distance of the subsoil water below the surface; if it recedes too far during the dry season, or if the soil is of clay, and caves in when a well is attempted, there may be only one, or, indeed, perhaps none at all, and then tank water is used for all purposes. Sometimes, if the villagers are particular, one tank will be reserved for drinking water; then bathing, scouring dishes, washing of food and clothing, etc., is absolutely prohibited.

The planting of certain trees (the banyan, peepul, mango, amra, and tulsi,



A BAND OF WOMEN POUND IT DAILY.

WOMEN AT A WELL.

a holy lavender shrub) and the digging of wells and tanks are considered acts of merit among the Hindus, and, like charity, cover a multitude of sins. So rich men with much sin to expiate often dig wells, or large tanks, in the middle of which a temple is built and dedicated to some one or other of the three hundred and thirty million gods of the Hindu mythology. The top of the highest spire of the temple is supposed to be below the water at its lowest in the dry season, and it is only during droughts that the higher towers are in sight. Wherever possible, tanks are dug so as to include springs, and then they hold water all the year. Often broad masonry steps are built, leading down into the water. Sometimes, after the tank is dug and the steps built, it will be found that there is after all no spring, and so, although full in the rainy season, it dries up quickly when the rains cease, leaving an unsightly excavation. These tanks have no outlet except evaporation, and no inlet except the springs in the bottom.

Tanks vary greatly in size, from a few yards to a mile or a mile and a quarter in length.

In some tanks that are deep, and, I think, have a clay bottom, the lotus grows in luxuriance. Its leaves are large (sometimes eighteen inches in diameter) and round, and the stem, which rises some inches above the water, grows from the middle of the leaf, instead of the side. The flowers also grow on long stems; they are pink or white, and as they nod in the breeze, the tank looks like a lovely garden of big roses.

The Hindus use flowers a great deal in the idol worship, the Brahmins carrying them to the temples in open baskets. The lotus, both pink and white, is much used for certain forms of worship, and so the plant is cultivated where a tank is suitable as to size and soil.

POISONS AND STIMULANTS.

BY NEWTON EVANS, M. D.

THE discovery of the principle of the compound microscope occurred in the early part of the nineteenth century. The application of this discovery to the practical study of the minute structure of substances, especially that of living matter, has done far more to advance the knowledge of biology than any other known event in the history of the world.

The microscope is used for a multitude of purposes in the sciences and the trades. It is of inestimable value in the manufacture and handling of all kinds of cloths and fabrics. It is used in all the large packing houses of the world, for the detection of diseased meats. In the examination of minerals and metals, in food laboratories, and in the laboratories of manufacturing pharmacists, it has a most important place. But its greatest value is found in connection with practical medical work, in the laboratories of pathology, for the study and detection of different forms of disease, and in laboratories of bacteriology, where the most wonderfully accurate studies are made of the different forms of disease germs.

Probably the most important work of the microscope in medicine has been the great amount of knowledge of the structure of the human body which it has enabled men to gain, and the nature of the diseases to which human beings are subject. All living tissues, both plant and animal, are essentially composed of little particles of living matter, called cells. The word cell originally meant an inclosed cavity or room, as a prison cell; and the word came to be applied to these living elements of the body, from the fact that the first cells that were studied with the microscope were those composing dried vegetable matter in a piece of dry wood, nothing but the wall remaining, the contents having dried out and disappeared.

As good examples of cells we have animals composed of only one cell, such as the common amœba, which is found in stagnant water; also the white cells found in the blood of all animals, called white-blood cells. Now the white-blood cell, which is a part of your blood, a part of your body, is an independent, living particle of matter, we might almost say an independent being in much the same sense that the individual amœba within the drop of water has an independent existence. You may take a drop of blood from your finger, and examine it under the microscope. If the conditions of heat and moisture are maintained, the cells can be kept alive for a long time, and the vital motions and functions can be observed for a number of hours. All the tissues of the body, muscle, bone, skin, brain, cartilage, contain cells similar to these in nature, but differing in shape and use.

To get a better understanding of the importance and nature of the cells of the body, let us consider for a moment an analogy: On the one hand, human society, and on the other hand, one-celled animals and many-celled animals. Among the most primitive savages, there is no division of labor. Every man supplies all of his own physical wants, is his own baker, his own tailor, his own physician, his own shoemaker, and his own ruler. While in civilized society, every man is dependent upon all of his fellows, and all his neighbors are dependent upon him. Some are bakers, some are tailors, some are shoemakers, and certain men are appointed to govern. The division of labor is carried on to a high degree.

So the amœba, a one-celled animal, is everything in itself; any part of the body is a mouth, a stomach, a limb, or a brain. While in the many-celled animals, with highly organized tissues, each cell has a special work. Some are muscle cells, some brain cells, some digestive cells. Each cell has its own life, independent in a way, but depending for certain things on all the other kinds of cells, and itself doing an indispensable work for all the other kinds of cells.

The most important cells of the body, as well as the most delicate and easily injured, are those of the central nervous system (the brain and spinal cord). For this reason these organs have the most elaborate and efficient protection, being completely surrounded by a bony wall, the skull, and the vertebral column. Within these bony walls are strong membranes, containing a small amount of fluid by which the nervous tissue is more completely protected. The entire nervous system is made up of delicate *nerve cells,* with *processes,* or long branches. The cell bodies receive and send out nerve impulses, and the long branches are the nerve fibers which convey these impulses. A nerve cell can be overworked, and will become fatigued in the same way that a muscle cell may. When a nerve cell is used to excess by study or overwork of any kind, its substance is used up, destroyed, burned up, in fact, so that instead of being full and round, it becomes smaller, and is wrinkled or shriveled up. The only thing which can rejuvenate these worn-out cells is good food and rest.

We have now come to the point where we can better understand our definition of poisons. A *poison* is any substance which by its chemical action has an injurious or destructive effect on the cells of the body. All stimulants are poisons, which, when introduced into the blood, come in contact with the nerve cells, and produce a strong injurious effect upon them.

If when a man is fatigued from overwork or excesses of any kind, or lack of nutrition from indigestion or any other cause, he tries to give himself energy or strength by using any kind of a stimulant, he is doing exactly the opposite from the thing he wants. He is breaking down just so much more of his already exhausted nerve cells, instead of building them up by giving them nutrition. It is true, he may get more work out of the nerve cells at the time, but he will only suffer the more for it afterward. The student or other brain worker who when exhausted from overwork or excesses, takes any stimulant, as cocaine or strychnine or caffein, as I have known them to do, to quicken the mind or to give strength to the body, is more foolish than a man would be to light a match in a cold room, and hold it under the bulb of a thermometer, then as the mercury rises, imagine the room becoming warm. The man who takes a dose of caffein for a headache, or morphine for any pain, and imagines he is cured, is just as foolish as a man who would stick a child's head in a tub of water to stop its crying.

Some of the chemical poisons which are thus used are cocaine, strychnine, arsenic, alcohol, morphine, caffein, tea and coffee, tobacco, and beef tea.

If these facts could only be realized by the numberless persons who are seeking constantly for something to strengthen them, who say they cannot work without some stimulant, how much stronger might they be, and how much less disease there would be in the world; but they do not seem to realize the truth. One of the worst features of the use of stimulants is the fact that in order to get the desired effect from them, they must be used in constantly increasing amounts. This is never true of food.

THE BATTLE CREEK SANITARIUM AND ITS WORK.

BY ETHEL TERRY REEDER.

WHEN, on the morning of February 18th, the daily press flashed the news abroad that two of the six large buildings of the Battle Creek Sanitarium lay mere heaps of ruin in the wake of the fire demon, the almost universal question arose, "What will this mean to the work which the institution represents?"

The managers were almost overwhelmed with telegrams and letters of sympathy, inquiries as to their ability to sustain the loss, and proffers of help.

It is not, indeed, without feelings of sadness and a keen realization of the financial loss, that those who have spent their lives in building up the institution look upon the ruin, but mingled with these comes a feeling of joy and assurance that the principles that builded those noble structures can raise nobler ones from the ashes of those which have passed.

For thirty-five years the Battle Creek Sanitarium has been growing, brick by brick, as the principles it represented grew in the hearts of the people, until instead of one small farmhouse in which its work was begun, it occupied six large buildings and more than twenty smaller ones.

When fire wiped out the largest main building and the large hospital, almost as completely as a crayon figure would be expunged from a blackboard, the loss was not to an individual or a corporation: it was humanity's loss.

THE HEALTH REFORM INSTITUTE.

COLLEGE HALL.

This institution has never been nor ever can be a commercial enterprise. It was a great truth that built it, and it has ever been its mission to represent that truth to the world. Fire may wipe out its buildings, but no fire can ever burn the truths it has taught, out of the hearts of the men and women who have come to it sick and disheartened, and gone away well and happy, with the means at their command for living better, nobler lives themselves, and the knowledge wherewith they might help others to do likewise.

The Battle Creek Sanitarium has been a staunch pioneer in the cause of sanitary and social reform, promptly and boldly championing every idea which looked to higher and better physical, social, and intellectual life.

When it was established in September, 1866, it was known as the Health Reform Institute. Ten years later, the name was changed to the Battle Creek Sanitarium, and at that time there were many people for whom the name had little meaning. Since then sanitary science has made rapid progress, and now the words "sanitary" and "Sanitarium" are upon the lips of every school child.

We do not mean to say that the Battle Creek Sanitarium originated this movement; no institution originated it, no man originated it. It is the progress that comes from the working of a divine Providence in the world and among men.

From the time of its establishment, the Sanitarium has been the representative of the newest, the most rational, the most progressive and practical medical science. It has never been the advocate of any single remedy; it has never been a one-sided or a one-idea institution. While water has held an important place among the therapeutic agents used, it has never been used to the exclusion of any other rational means. Correct habits of life, correct dress, correct diet, pure air, exercise, electricity, and many other potent agencies for healing, have come in for their full share of attention, in both its practice and teaching. It has always been its work to teach the science of health, by which the sick may recover, and be able to keep well after recovery.

WEST HALL.

NURSES' DORMITORY, OR EAST HALL.

The work of the Battle Creek Sanitarium and its allied institutions is an educational work, as well as one of ministration to the sick and suffering, it being the firm belief of those connected with them that it is better to save a man from being sick than to cure him after he is sick. Every effort is made to explain to the patient the scientific reason for the treatments given. Every nurse is a teacher of the principles of right living, and even the call boys are always ready with logical answers for very knotty questions relative to health-getting.

We would not have the idea go abroad that the Battle Creek Sanitarium is in a paralyzed condition as the result of its recent calamity. Far from it. Its wonderful recuperative power is the very best evidence of its great vitality. Though the two buildings where the principal part of the work was carried on are gone, four large buildings and all of the smaller ones still remain, and long before the last charred wall fell, hundreds of willing hands were busy preparing these to meet the immediate necessities of the situation. The work necessary for transforming the large five-story nurses' dormitory into a hospital for the treatment and care of the sick was begun at once, and long before these pages reach the public, work will be going forward there, if not just as usual, so nearly after the usual order that there will be no perceptible jar, and no difference in the results obtained.

The large brick building known as West Hall, that was formerly occupied by the students of Battle Creek College, is also undergoing some changes, with the idea of making it more convenient for patients and guests. These two buildings will comfortably accommodate between two and three hundred people. Bath rooms have been fitted up in the basement of the building occupied by the American Medical Missionary College.

These are equipped for carrying on the scientific bath-room treatments, for which this institution is noted. To be sure, the arrangements are not quite so elegant as those of the magnificent bath rooms burned, but they are convenient and efficient, and those who were planning to visit the Sanitarium for treatment need not hesitate to come.

A surgical ward was at once fitted up in the large East Hall, and the week following the fire, Wednesday was devoted to operations as usual, a number of important cases being dealt with, and in just as thorough and satisfactory a manner as before the fire.

The superintendent was away at the time of the fire, only learning of the catastrophe on alighting from a train in Chicago. An hour later, en route for Battle Creek, he was busy making plans for a new building, which it is hoped will be in readiness for occupancy by July 1 of the present season. New methods of fireproof construction, and the large building organizations now in existence, make possible veritable miracles in construction, and responsible contractors and architects give assurance that the work may be done by the time named.

The new buildings will be a veritable temple of health, embodying everything known to sanitary, hygienic, and medical science which can be utilized in the conservation of health and the successful treatment of the sick. The building will be constructed of brick, iron, and cement, absolutely fireproof, commodious and convenient, and will embody a great number of novel and attractive features. We will give our readers further information in future numbers, as the work progresses.

The accompanying cuts, excepting those on the first page of the article, illustrate the buildings that still remain, and in which more than two hundred patients are now being cared for.

OIL, AND ITS USES IN THE TROPICS.

BY A. CURRON.

FOR every extreme climatic condition, nature seems to have provided some protection or antidote. There are wells in the sandy deserts, there are running streams in the rocky ridges, and cooling shades in the wild tropics. The law of cause and effect everywhere apparent in the workings of nature, is, fortunately, not unattended by some remedial agent. While it is true that in Nature there is no forgiveness, it is also a fact that she continually dispenses liberally the best of remedies,— there is a continual giving out of her best. Of what more potent factors can we avail ourselves than those that are natural, as heat and cold, light and darkness, food and drink?

In the tropics there is a most abundant provision in native foods of fine oil substances. This is not merely incidental; it is evidently designed. It is a means to an end; and is a striking evidence of the beneficent care and forethought of the Creator.

While in most of the tropical islands the temperature seldom exceeds one hundred degrees, there is an intensity and pressure in the atmosphere — because of the moisture — which has an overpowering effect on the nervous system, and occasions much depression. Because of this, the tendency is everywhere noticeable to take things easily, and to avoid hurry. It is wise to do so; but the mis-

take in connection with it, made so often by the white people, is that there is no diminishing of the quantity of food. It is just as imperative to take less food as it is to take more rest. Were this fact recognized, there would be much less reason for the "running down" of the nervous system. The inward tax is far the worse in effect.

As remarked above, there is a bountiful supply of vegetable oils in tropical foods, and this is not without purpose. When taken in the form supplied by nature, these fats have a most beneficial effect. There are varieties of nuts, as the cocoanut, the vuta nut, and ivi nut, which contain from thirty to forty per cent of oil substance, while such vegetables as yams, taros, and kawais, contain about the same proportion as our grain foods. When taken in their natural state, these are highly nutritious and readily digested. Foods fried or roasted, and thus soaked in their own as well as added fats, are a poor attempt to supply the demands of the system for this element, and are responsible for a variety of distressing stomach disturbances and liver ailments, and the retinue of quack medicines that follow as remedies.

The diet of the native in the tropics is very simple, and well for him that it is so. He knows nothing of complicated foods and mixed dishes. Grease is almost wholly absent from his food. He knows nothing of the use of the frying-pan or the grilling iron. His food is prepared either by boiling or steaming. As the result of all this, there is to be found scarcely any symptom of stomach irritation or bilious torpor. The entire absence of fermentation and consequent belching of foul gases, which is becoming so common and disgusting nowadays, is a marked contrast in favor of a simple, plain, and natural dietary.

This supply of fats in a finely emulsified state is a bulwark of health to the natives. It supplies the system with a fine lubricant such as no art of man can successfully imitate. Its use lessens friction in the body, and thus prevents too great a production of heat. Instead of being a clog, as when used artificially, it assists the motions of the living machinery, and produces harmony of action throughout.

Moreover, the natives have not been slow to recognize its use in a free, separated form. It is a well-known custom among all barbarous races in tropical climes to smear the whole body frequently with oil made from vegetable substances. It is not merely that it gives a shining appearance to his skin that he thus uses it, but because of the cooling and exhilarating effect it has. Oil, when applied to the skin, has a most pleasant effect, and renders it delightfully supple. It has another use. The climate demands that the body be free from all restrictions of clothing. The lighter and the fewer the garments worn, the happier is the native. A sulu wrapped around his hips suits him better than the most fashionable cut. No sooner is he free from society, than he rejects every atom of surplus clothing for an Eve's apron. Partly nude and exposed to the rays of the sun, he has need of something to protect the skin. Cocoanut or some other nut oil meets this need admirably. The sun's rays are reflected off, and he is thus saved from a severe scorching. So intense is the heat of the sun, that a white man finds it absolutely necessary to apply oil freely to every exposed portion of his body. If he does so sparingly, he will repent freely. While the natives are in much need of teaching, there is much that we can profit by to be learned from their simple habits.

Two very noticeable results attend the use of oil when used externally and as a food. In the latter use, there is a

marked absence of that common scourge of modern times — constipation. So far, the writer has been unable to detect it where the natives are living in their simplicity. For some years I have been convinced that the use of fats in the form prepared by nature — as found in the edible nuts — would serve as a remedy for this distressing complaint. Opportunity was lacking to test the conviction; but since locating in the tropics, I am more than satisfied with the results, being wholly freed from that distressing malady.

The second marked result of the external use of oil is the prevention of colds. The natives when out are always exposed to heavy tropical showers, and subject to every change of weather; yet they rarely suffer from cold. The women stand for hours up to their necks in the water, working their fish nets, without any apparent ill effect. Such a procedure would be considered as suicidal on the part of the modern civilized woman.

Diseases of the skin and scalp, and torpidity in general, would diminish considerably were oil introduced with the daily food, and used more frequently in conjunction with the bath.

The well-developed limbs, fine general physique, and freedom from the many common and distressing ailments which cluster around us as the fruits of our civilization, make one envious of these simple folk, and force, unwillingly, the acknowledgment that, after all, our civilization, which has done much to cultivate the arts and sciences and to supply us with many conveniences, has failed miserably in that it has left us in a weakened and physically degenerated state, a sad contrast, indeed, with our boasted enlightenment.

THE HYGIENE OF ROMAN HOMES.[1]

BY ANNA CLIFF WHITE.

IN the year 1748 the site of the buried city, Pompeii, was recognized, but it was not until more than one hundred years later that the work of excavation was begun. To-day over one half of that interesting city lies bare, a veritable paradise for the hundreds of tourists, travelers, literary people, and relic hunters, who, with pick and shovel, are constantly delving for hidden treasures in the buried palaces and halls of the past. Constant excavations in Greece and Italy have maintained much of our interest in the public and private homes of these ancients — homes which have been inspired with the breath of immortality. Pompeii and Nineveh, Babylon, Heliopolis, and Etruria, with many others, have given up their secrets, have enabled the historian to speak with emphatic assertion, and have furnished the novelist with rich material for plot and plan.

In many ways, we find from research and observation, the people of Rome and Greece were fully cognizant of the fact that to be healthy, wealthy, and wise as individuals and nations, the laws of nature and hygiene must be obeyed; and, in fact, Hygeia, daughter of Æsculapius, the god of medicine, was made their goddess of health. Consequently, we find

[1] Credit is due Guhl and Koner's "Life of the Greeks and Romans" for some of the historical portion of this article.

many things, in their lives, homes, customs, and dress, interesting from the standpoint of hygienic and healthful living.

The rooms of a Roman house were usually small, with low ceilings. The walls were tinted in some of the bright colors of which they were so fond — scarlet, orange, and blue; and the pictures were not framed as we have them now, but were painted right on the wall, comprising chiefly classical subjects and hunting and battle scenes. What a comfort if such an arrangement could be made now, we think, when we see what desirable and convenient lodging places for dust, flies, and spider webs, our modern pictures are. The floors were very handsome, especially in the homes of the richer classes, being mosiac in effect, with a border, corners in arabesque patterns, and a centerpiece. No carpets were used, thus doing away with one fruitful source of dust and germs. In the more aristocratic houses, the walls of the chief rooms were of beautifully veined or mottled marble, with pillars of highly polished stone or carved woods.

From "The Life of the Greeks and Romans."
INTERIOR OF A ROMAN HOME.

The outside doors were of wood, frequently inlaid with ivory or tortoise shell. They were not swung on hinges, but moved on pivots let into the lintel and stone sills. There were no separate doors between the rooms, but draperies in blue, purple, or scarlet, with heavy borders and fringes in gold. These draperies could be caught back, and thus enable the fresh air to have free circulation throughout the bedrooms and living rooms; a very healthful arrangement, which is growing more popular at the present day, nearly all our modern homes having the principal rooms opening one into the other. The windows were set high up in the walls, and were small latticed affairs, more for ornament and ventilation than use.

Heat was generally supplied by small braziers filled with burning coals, but was sometimes introduced under raised floors.

One entered from the house a central court, open to the sky, but with a pavilion to screen it from the hot rays of the mid-day sun. In this court were fountains throwing up their cooling and perfumed waters, vines, blooming plants, cages of singing birds, seats of smooth marble or carved stone, and groups of statuary or single artistic figures. In this court the members of the family lounged, received their friends, or summoned their dancing girls for an hour's amusement.

Special attention was paid to physical culture, baths, and heating supplies. Athens and Rome were supplied with good sewers early in their history, and

A Roman Fountain.

their bathrooms are wonders when viewed in this day of so-called advanced ideas.

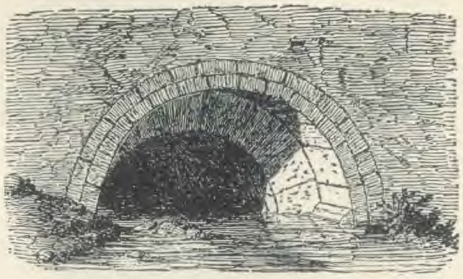
House drains had metal pipes connecting with the city sewerage. Each house had a deep, covered rubbish pit. City drainage was carefully looked after. One of the finest sewerage canals ever built, about one thousand feet of which is still preserved, is that known as Cloaca Maxima, constructed for the purpose of conducting the waters of the Palatine and Capitoline hills into the Tiber.

When one examines the bathrooms of these mediæval homes, modern plumbing fails to excite our wonder and surprise. Two things the Romans considered absolutely essential to health and cleanliness — physical culture and bathing.

"The usual time for taking a bath was the eighth or ninth hour, or shortly before the hour of the cena (dining hour, or meal time), which greatly varied according to the occupation or convenience of the individual. For this reason the public baths were left open during the greater part of the day until sunset. In imperial times they continued open during part of the night, as is proved by numerous lamps founds in the thermæ, and by the marks of lamp-soot on the walls of the baths of Pompeii. The ædile Agrippa, while in office, built one hundred and seventy bathing chambers, to which everybody was admitted gratis for the space of one year; on his death, he left his magnificent private thermæ to the people. In the apodyteria, or dressing room, of the Pompeian thermæ we still see the holes in the walls into which the pegs for suspending the clothes were inserted. The bather next entered the sudatory bath, where the dry rubbing also took place, after which he proceeded to take a hot bath, originally in a tub; in

later times, in a large reservoir; in a niche of this room stood the flat labrum with cold water. A cold plunge terminated the bath proper. Afterward the bather was rubbed, or rubbed himself with oil; sometimes this took place in the sudatory bath. Even before, and in the intervals of, the bath, the bather was frequently anointed, a slave carrying the oil bottles, the scraper to remove oil and perspiration from the skin, and the linen towels after his master to the bath. Soap became known only in imperial times; in its stead were previously used by the poorer classes a sort of paste made of the fruit of the lupine; by wealthy people, different ointments. After the bath the hair and skin were again rubbed with odoriferous ointment; even the clothes were scented.

"The increasing luxury of Roman manners became particularly visible in the interior arrangements of the baths. Seneca speaks of the decoration of private bath chambers with the most valuable kinds of marble or with glass; even the taps of the water pipes had to be made of silver. The elder Pliny says that many Roman ladies would not think of entering a bath without silver fittings.



From "The Life of the Greeks and Romans."
MOUTH OF THE CLOACA SEWER.

This luxury of private baths was far surpassed by the enormous public thermæ of imperial times, where fashionable Romans passed a great part of their day in luxurious idleness or animating conservation. Besides these common baths, the Romans knew and used the medicinal powers of mineral springs."

Great care and skill were bestowed on the construction of immense aqueducts, which conducted pure water in great abundance to the various places in the city where it was to be used for domestic and other purposes. The pipes were generally of lead or clay, and the canals were cut in the rock, or dug in the earth and walled in. Shafts at certain intervals served to convey fresh air to the water, and keep it oxygenated. In the case of outer aqueducts, the channels were made of brick, and covered with stone. In both cases the interior of the walls received a water-tight coating of chalk and sand.

REMAINS OF ROME'S ANCIENT AQUEDUCT TO THE BATHS OF CARACALLA.

THE CHILDREN'S ROOM.

BY MRS. E. E. KELLOGG.

A WRITER in *Babyhood* relates an incident of the mother of a new baby, who, in the course of a conversation with an intimate friend, remarked, "Really, I don't know what we shall do. We never counted on a baby when we built this house." That is the trouble with many another home, the house is built for the enjoyment and comfort of the grown-up people, with no provision for the babies. When they arrive in this world, they must dwell wherever it is convenient, amid the din and clatter and bustle of work, and the confusion of movements, sights, and noises both strange and bewildering to their sensitive nerves and brains. They grow accustomed to it after a time, but there can be no doubt that it is at the expense of much of the serenity and equability of temper which it might be theirs to possess under more favorable environments.

A nursery, or children's living room, is an essential in every well-ordered home,— not a room to which the little ones may be banished and kept out of the way of their elders, but a room planned for and adapted to their needs, and supplied with the very best conditions for their health and growth, and one into which the mother and caretakers may go and "live with the children." For this purpose the brightest, sunniest, driest room in the whole house should be chosen, preferably a corner room with plenty of windows on two sides. The south and east are most to be desired, since light and sun are just as necessary for the baby's growth as for any other of nature's tender buds. If the situation of the house does not permit of such a southeast corner, a south side room is to be preferred. It should be no less than twelve feet wide by sixteen long,

and should be so thoroughly ventilated that at least three thousand cubic feet of fresh air should pass through it every hour, without occasioning any perceptible draught.

The most desirable finish for the walls and ceiling is paint of some neutral tint. A light olive is a restful color for the eye. A ceiling of light blue as nearly the color of the sky as possible, with little silver stars pasted here and there, is a novel idea, and gives a very pretty effect. Painted walls make it easy, not only to wash off the finger marks, but to remove frequently with a dampened cloth the dust and germs which naturally accumulate upon the wall in an occupied room. Ordinary wall paper is undesirable for the children's living room, but a veneered, washable paper can be had in several dainty designs of quaint figures of children, which gives to the wall a very pleasing and artistic effect. The walls of the model nursery at the recent Pan-American Exhibition were covered with burlap, which, when painted several times over, is said to be absolutely germ proof. The floor should be of closely joined hard wood, either oiled or waxed, or a painted one, and should be covered with nursery linoleum, or with rugs that can be easily taken up and shaken. This linoleum is a new product of linen woven with cork, neither slippery nor cold for the little feet, like ordinary linoleum, though quite as easily cleaned.

An open fireplace protected by a wire screen offers the greatest pleasure and comfort combined in the way of heating, and also aids in the ventilation. If this is impracticable, steam heat, or that of a fresh-air furnace, is superior to that of a stove. Plumbing and drainage are most desirable in a nursery, and when it can be so arranged, it is better not to use the day nursery for a sleeping room at night. A room in use all day is generally too warm for good sleeping, while a room cooled sufficiently for good repose is, in cold weather, seldom sufficiently warm in the morning for the children to begin their activity; besides, if the room is not a particularly well-ventilated one, the air is likely to become vitiated through its constant occupancy. If it is necessary, however, to use the same room day and night, the children should be removed to some other quarters for an hour or more in the morning and evening while the room is thoroughly aired, and, in cold weather, warmed in the morning before occupancy. In the evening it may be left cool.

The air supply for the nursery should be free from all contamination. The temperature in cold weather should be carefully regulated, and kept as nearly at an equable standard as possible; it should not be allowed to rise above 70° F. during the day (68° is still better), nor above 60° at night. One or two thermometers hung in different parts of the room, should form a portion of the furnishings of every nursery.

All heavy curtains and upholstered furniture should be banished from the children's apartment. Let the furnishing be as simple as possible,— muslin window hangings that can be laundered easily and often, bright, cheery pictures, hung low enough to come within proper range of the little ones' vision; plenty of broad-seated chairs without rockers (such as are used in kindergartens), of various heights from the floor to properly accommodate each child; low tables in keeping with the heights of the children and the chairs; a nursery chair with a light screen about it; the mother's chair, and her sewing basket and table. A few choice plants, a canary, or a globe of gold fish will aid in making the room cheery. A hanging wall cabinet, a sort of emergency cupboard in which may be

kept an alcohol lamp with matches and dish, atomizers, a supply of courtplaster, bandages for cut fingers, a fever thermometer, and other simple appliances, often needed, but not always at hand, is a most valuable addition to the nursery furnishings.

The best bed is an iron frame with woven iron springs, without draperies, and of such height from the floor that the occupant shall not lie in the draught, nor in an atmosphere which in illy ventilated rooms is usually more impure near the floor.

The preferable bed furnishings are a mattress and pillows of hair or moss, with woolen blankets for covering. If necessary a piece of rubber sheeting, covered with a pad made of several thicknesses of cheese cloth, may be laid over the mattress. Such pads should be washed whenever soiled. There should be two, so that one can be hung in the sunshine daily, for disinfection.

It is undesirable to have wardrobes in the nursery; they are large and cumbersome, and it is so difficult to move them that they become excellent hiding places for dust and germs, and in case of any contagious or germ disease their entire contents must be subject to disinfection. A light chiffonier or chest of drawers in the day nursery, will afford ample space for storing the clean clothing needed for each day, and can easily be refilled when empty. The lower drawers offer a desirable receptacle for the children's playthings.

Soiled clothing should not be hung about or kept in the children's apartments.

It is fortunate for the nursery occupants if the room be lighted by electricity at night. Both gas and oil are to be condemned, as they consume so much oxygen in combustion, one ordinary lamp consuming as much as five grown people. If a lamp must be used, the best plan is to put it for the night in the open fireplace, or to place it in some adjoining room, with the door so arranged that the air from the room containing the lamp will not be likely to be drawn into the sleeping room.

If there be no bath-room conveniences to the nursery, a portable, folding bath tub is a desirable article of furnishing. Excellent rubber ones are obtainable, which, when not in use, can be folded, and put out of the way.

Provisions should be made for orderliness in the nursery by providing a suitable place for the children to keep their things, a set of drawers, low shelves, or a long box with hinged cover which may be upholstered for a window seat, are some of the various ways in which this need may be met. Whatever is provided should be low, within the easy reach of little hands, so that the children may be early taught to pick up and put away their belongings as a completion of their play.

While the furnishings should all be simple in character, they should be chosen with an eye for that which is beautiful, dainty, and harmonious. Shabby rugs, faded curtains, dilapidated pieces of furniture, and other articles not good enough for other rooms, are not good enough for the children's apartment. If only one picture can be afforded, let it be an engraving of real worth, not an inartistic chromo; let the rug, though of moderate cost, be of colors in keeping with the other furnishings.

Beauty and taste in his environments exert no small influence upon a child. Habits of tidiness and order, gentle manners, and other of the small amenities of life, come easier to the child amid attractive surroundings. Most children have an innate love for beautiful things, and have more delight in taking proper

care of such. One mother gave this matter a test, in her efforts to teach her little ones care in handling the tableware which it was their daily task to wash and wipe. At first she tried to check the breakage, which was rapidly diminishing her stock of china, by providing articles of heavy kitchen ware, and arranging that each child who broke a cup should be supplied with a yellow earthen mug for a certain number of meals, as a penalty for carelessness. Though the table soon came to look like a crockery exhibit, it appeared to make little impression upon the destroyers of china. Finally she decided to try appealing to the love of the beautiful in the childish heart. She sought and found some daintily decorated pieces at moderate prices, which she purchased, and confided to the care of the little dish washers. The result was that the greatest of pains was taken not to break or even nick the lovely dishes, they "were so pretty."

Another mother, whose little son, in spite of much training, was greatly lacking in neatness and orderliness, was given a tastefully fitted-up room of his very own to care for, and very soon evinced much pride in trying to keep it looking tidy and clean. There is a story told of a poor, forlorn little child who one day passed the beautiful statue of a Greek slave girl which stood in the market place. Arrested by its beauty, she gazed in rapture for a time, then went to her home, washed her soiled face and hands, and combed out her tangled hair. A second time she studied the beautiful figure, and returned to her home to mend and wash her garments. Again and again she visited the place drinking in the loveliness of the exquisite features and beautiful form, each time going home to add to her own life some touch of grace, until she finally began to grow into the likeness of the statue which held such charm for her. It is the old principle "that by beholding we become changed." The contemplation of that which is beautiful has a tendency to uplift and develop that which is lovely in character. How important, then, that we cultivate the beautiful in all the home surroundings of the little child.

LABOR.

GREAT with the growth of nameless centuries,
In grand proportions stands he looking forth
Across the mighty universe that calls
In complex voices multitudinous,
From every leaf, and flower, and sprouting shrub,
From mountain summit and from whirling wind,
From every atom of earth's pulsing dust,
And from the realms beyond his veil of light.
Far has he traveled, upward step by step,
With heaving throes that shook the vibrant surge
Of Beings infinite. He looks not back,
But ever on and up. He climbs to God,
That glory is upon him, and it touched,—
Aye, in the agone, when man, his child,
In blinded pride first shackled him, it touched
And glorified him, and he knew it not.
His sinews strain in tireless energy.
The fetters bend and yet shall break, for lo!
The steps that Godward move have stayless power.
Labor, divinely crowned, transforms the world.

— *Carrie Renfrew.*

NATURE IN DISEASE.

BY J. H. KELLOGG, M. D.

IT is the general belief that health is natural, and disease is unnatural, but nature is just as much concerned in the one as in the other.

Health and disease are the same thing as far as the vital processes are concerned. The difference between health and disease is simply that in disease the body is working under bad conditions, while in health it is working under good conditions. It is the working of the same body all the time. The same organs performing, or trying to perform, the same functions under different conditions.

A great many people believe that health is from the Lord, and that sickness is from the devil. There are many good people who believe that when a man is sick, the devil is, in some way, working in him, and must be cast out. Others think that sickness is a dispensation of Providence. We often hear people talking of how "Providence has seen fit to afflict them." We have known people to go about for months and even years, telling their friends how everything they eat disagrees with them, and if you suggest the simplest remedy for the disturbance, they will tell you with a long face and awed tone, that they are sure that their stomachs can never be helped; it is their thorn, the especial affliction which Providence has seen fit to bestow upon them, and they cling to the thorn as if it were the most pleasant thing in the world.

The truth of the matter usually is that the thorn is the outgrowth of some pet indulgence, for the sake of which they are willing to endure the thorn. They are willing to put up with a bad digestion for the sake of having their own way in the matter of eating.

We once heard of a woman who was so fond of doing exactly as she pleased, that it was said she would surely die of having her own way. There are many people dying daily because of having their own way.

When any one is sick, it is because some one has sinned. Some one has broken the simple laws which, when complied with, make it possible for the body to do its work under natural condition. This is health. Broken laws and unnatural conditions mean disease.

The Bible says, "Evil shall slay the wicked." It also says, "Whatsoever a man soweth, that shall he also reap." So if a man is sick, it is because either he or his forefathers have sown for sickness, and usually we are all too willing to leave the responsibility with the forefathers.

There are so many things which, when sown, bring to the sower a legitimate harvest of sickness. Cigars, tea, coffee, late suppers, over-hearty dinners, ice cream and cake at midnight, late hours, loss of sleep, sedentary confinement, neglect of exercise; all these are the seeds of sickness, suffering, and short lives. And when we have sown them, we must not blame Providence if we reap the sure fruit of our sowing.

We read in Holy Writ, "The fathers have eaten sour grapes, and the children's teeth are set on edge;" so, if we cannot account for our disease by our own indiscretions, the laws of heredity will usually give us the clue, and we will find the cause of our suffering in the lives of our progenitors. Oliver Wendell Holmes once remarked that "everything can be done for a man that needs to be done, if only the doctor and preacher can be found;

but it will often be found that the doctor and the preacher should have been called two or three generations back." This is no doubt very frequently true. However, the fact that our parents have sinned does not excuse us from effort, or mean that we must of necessity settle down to endure the evil that their wrongdoing has brought upon us, as something from which there is no escape.

We may not have as good bodies as we would have had if our ancestors had lived differently, but a poor machine that is well cared for will often do more and better work than a good machine that is badly treated and misused. It is just so with the body. If our parents have bequeathed to us bodies that are not as good as they might be, there is all the more reason why we should set to work learning how to take the very best care of them.

We must get rid of the idea that disease is of the devil. The pope of Rome once fulminated a bull against the plague, the comet, and the devil, but that did not stop the plague. When we stop sowing for disease and begin to sow for health, disease very soon begins to shrivel away. If you perseveringly cultivate health, you will surely get a harvest of health. God is working in the body when it is diseased. Disease is not an entity within the body, which we must seek to destroy and cast out. Disease is an effort of the body to right some wrong condition. If a boy puts green apples into his stomach, and vomits, it is nature's effort to get rid of the green apples. A man has germs in his alimentary canal; nature tries to cast them out, and so she puts the man to bed; she takes his strength away, and lays him down quietly, so as to have a fair chance to wrestle with the germs. And so it is with every disease; it is an effort of nature to get rid of something wrong in the system, parasites, or whatever else it may be in the body that is wrong. Disease conditions are simply the result of the contention of the tissues of the body against parasites; there is a constant battle between the tissues of the body, the parasites, and the abnormal growths, and suffering and disease is the result of that battle.

So, in disease, we have a manifestation of that Divine Providence which is always at work within us to save us from the evil consequences of our own wrongdoing.

EGGS, AND HOW TO COOK THEM PROPERLY.

LULU TEACHOUT BURDEN.

IF eggs are used at all, they should be perfectly fresh. One can easily determine this fact by several methods. A very common test is to place the egg between the eye and a strong light. If fresh, the white will appear translucent, and the outline of the yolk can be distinctly traced. When eggs are decidedly stale, a distinct, dark, cloud-like appearance may be discerned. Some shake the egg gently at the ear; if a gurgle or thud is heard, the egg is not fit for use. A solution may be made of one tablespoonful of salt to a quart of water, and the eggs dropped into a vessel containing this. Newly laid eggs will sink; if more than six days old, they will float in the liquid; if stale, they will ride on the surface.

Eggs have porous shells through which evaporation takes place, and when kept for any length of time, an air chamber forms in one end of the shell. It is this that makes a stale egg lighter than a newly laid one. The process of

evaporation and also of decomposition may be greatly retarded by covering the egg with some substance that will fill the pores, and thus make of the shell an air-tight jar in which the egg will be kept fresh for some time.

A coating of liquid, fat, or gum, or packing in bran or salt, with the small end downward, is effectual for this purpose, if the eggs are perfectly fresh when they are thus treated. They should be kept in a cool, dark place, and carefully handled, to prevent the white and yolk from becoming mixed, which results from the rupture of the membrane separating them.

The composition of the white of an ordinary hen's egg is: —

Nitrogenous matter	20.4
Fatty matter	10.0
Mineral matter	1.6
Water	68.0

Composition of the yolk: —

Nitrogenous matter	16.0
Fatty matter	30.7
Mineral matter	1.3
Water	52.0

The egg is particularly rich in nitrogenous elements, and is a concentrated form of food. For this reason it is found serviceable in cases of sickness where a large amount of nourishment is desired in small bulk. In order to balance the menu, starchy foods should be used freely in connection with eggs.

It is better not to use an egg until it has been laid ten hours, as the white does not become set or thick until then, and cannot be beaten stiff. Eggs for poaching or boiling are best when thirty-six hours old.

The time required to digest a perfectly cooked egg varies from three to four hours. It is generally thought that eggs lightly cooked are most readily digested. Any method of cooking which renders the albumen of the egg hard and solid makes the egg difficult to digest.

When eggs are to be beaten, they should first be carefully washed and dried. In warm weather it is well to let them stand for some time in cold or ice water before they are needed. When they are broken, care should be taken not to allow the yolk to mingle with the white, as this hinders the whites from becoming stiff. A wire-spoon beater is excellent for beating the whites of eggs, though a Dover beater or a fork may be used.

Boiled Eggs.— Put the eggs into water below boiling point, about 160°, and let them remain ten minutes, not allowing the water to go above 165°. Cooked in this way the white will be of a soft, jelly-like consistency throughout, while the yolks will be soft but not liquid. If it is desired to have the yolks dry and mealy, the temperature of the water must be lowered, and the time of cooking lengthened. A double boiler is quite serviceable for cooking eggs in this manner because the water seldom boils in the inner cup. Twenty minutes is sufficient length of time to make the yolks mealy, the water being kept at a temperature below the boiling point.

Poached Eggs. — Have a very clean shallow pan nearly full of salted and boiling water. Remove all the scum, and let the water simmer. Break each egg carefully into a cup, and slip gently into the water. Dip the water over them with a spoon, and when a film has formed on the yolks, and the white is firm, take up each with a skimmer; drain, trim the edges, and serve. There are many nice ways for serving poached eggs. They may be placed upon toasted circles of bread which have been lightly spread with nut butter; toasted wheat flakes or granose flakes make an excellent bed in which to serve poached eggs. Such a dish may be garnished with lettuce or parsley.

Poached eggs may also be served in a

tomato sauce, or surrounded by a potato border. The potato may be put through a vegetable press, or squeezed through a pastry tube. It saves time to have a regular egg poacher, as the receptacle for the egg can be oiled, and each egg is cooked by itself, giving it a neat shape.

Fried eggs are highly indigestible, and hard-boiled eggs are not so easily digested as those cooked soft.

Eggnog.— The eggnog is an ideal way for serving eggs to the sick. The recipe may be varied to suit the taste, by using different fruit flavors or by using milk or kumyss.

The whites of two eggs should be beaten to a stiff froth, and one tablespoonful of fruit flavoring of any kind added. Sweeten with one tablespoonful of sugar, and add the yolks which have been well beaten. The dish is made more attractive by reserving a spoonful of the white for the top, before adding the yolks. Fresh fruit, such as strawberries, raspberries, or cherries, add much to a tumbler of eggnog when a number of them are scattered through it, and two or three are arranged on the top.

Omelet.— Beat the yolks of two eggs until light colored and thick; add two tablespoonfuls of milk and one saltspoonful of salt. Beat the whites of the eggs until stiff and dry. Cut and fold them lightly into the yolks until just covered. Have a clean, smooth omelet pan. When hot, oil it, and turn in the omelet quickly, spreading it evenly on the pan. Lift the pan from the hottest part of the fire, and cook carefully until slightly brown underneath. Put it on the oven grate to dry, not brown, on top. When the whole center is dry as it is cut into, run a knife around the edge, then under the half nearest the handle, and fold over to the right. Hold the edge of the hot platter against the lower edge of the pan, and invert the omelet upon the platter.

One tablespoonful of chopped parsley, or a teaspoonful of finely grated onion, or two or three tablespoonfuls of grated sweet corn may be added to the yolks before cooking.

Left-over yolks may be kept fresh for several days by dropping them at once into cold water. There are many ways of using these; they may be steamed for an hour and a half, or longer, when they become very mealy and can be easily mashed through a fine sieve; season them with a little salt and nut butter, and serve between slices of bread for a sandwich. They may be chopped and used in salads; or, if boiled hard, they may be sliced, and used as garnishes.

YOU AND TO-DAY.

With every rising of the sun
Think of your life as just begun.
The past has shrived and buried deep
All yesterdays. There let them sleep!
Nor seek to summon back one ghost
Of that innumerable host.
Concern yourself with but to-day;
Woo it and teach it to obey
Your will and wish. Since time began
To-day has been the friend of man.
But in his blindness and his sorrow,
He looks to yesterday and to-morrow.
You and to-day, a soul sublime,
And the great pregnant hour of time,
With God himself to bind the twain.
Go forth, I say, attain, attain.

— Ella Wheeler Wilcox.

THE DEGENERATION OF GOD'S IDEAL.

BEAUTY and symmetry characterize all the works of the Creator, but the human body in its perfection is the most beautiful of all divine creations. And, indeed, we should scarcely expect it to be otherwise, for was it not fashioned by the Divine Artist in his own image?

That we are made "in his likeness" is the greatest of reasons why every woman should care for her body in the very best manner, that she may the better fulfill the purpose of her Maker, and the more fittingly represent him before the world. She is under obligation to the Creator to preserve her body as nearly as possible in conformity with the original pattern, and has no right to in any way distort or deform it. If, as is the case with most of us, she has the inheritance of physical weakness and imperfections, it is her privilege to cultivate the body, to improve it, to seek to secure for it sound health, correct poise, and such other modifications as will enable it to approach more nearly the beauty of that One in whose similitude it is made.

It seems beyond reason that any could be found who would seek to impair this "living temple." Yet is this not just what hundreds of women are doing, though perhaps unwittingly, in their endeavor to follow the mandates of fashion? So wedded are we to this sovereign of dress that her requirements receive first consideration when clothing is needed. The prevailing mode is studied as critically and carefully as if it were some needful art or science, and the particular design or style which pleases the eye being chosen, the effort is put forth to fit the body into the garment rather than to shape the dress to the body.

It is the concensus of medical opinion that the larger percentage of the diseases peculiar to her sex, which make the lives of so many women miserable, are mainly attributable to conventional dress. Verily the body is more than raiment. A study of its requirements as regards clothing makes plain that the essentials of rational dress are protection, equal distribution of warmth, perfect freedom of movement, minimum of weight, becomingness, and suitability. The woman who must lace her shoes before she puts on her dress, must duck her head to put on her hat, adjust her bonnet before she fastens her waist, who cannot stoop to put on her rubbers, who must push eight or more pounds of skirts with her knees at each step, or drag behind her even greater weight, supported quite as often as otherwise from her hips, is certainly out of tune with nature in her manner of clothing her body. Properly equipped to make the most of life, a woman ought to be able to bend and turn her body, take any position or make any movement when dressed, that she is capable of doing when undressed. Indeed, the ideal dress is one so comfortably adjusted, so well suited to the season, so perfectly adapted to every need of the weather, that she is wholly oblivious of it.

That woman can persuade herself that the conventional dress is desirable and comfortable, as often asserted, is due to the force of habit. Were she to study the body, she must see that her powers are lessened, her privileges diminished, her health undermined, and even life shortened when the body is so clothed as to restrict any function. To commit suicide is generally looked upon as an unlawful proceeding. Pray, what is the moral difference, whether one's natural term of life be shortened with a tight rope around the neck, or tight bands around the waist? The one may occupy

less time in execution, but is not the principle the same?

Neither is beauty of form enhanced by the customary mode of dress. A small waist is only pronounced pretty because of the perversion of our ideals. The perfect figure admits of but from two and one-half to four inches difference between the waist measure and the measure of the chest, while a corset-fashioned waist frequently shows eight or even ten inches difference. Why should not women take a normal and perfect ideal for their standard, and aim to reach it as nearly as possible?

We have somewhere seen it asserted that the women who have done the most to move the world for good, were the women with natural-sized waists. We do not doubt the truth of this. Deep breathing has much to do with deep thinking; a constricted waist means small vital capacity; a natural waist means large vital capacity, and consequent ability for healthful, vigorous life and action. Said Miss Frances Willard in one of her last addresses: —

"Be it remembered that until woman comes to her kingdom physically, she will never really come at all. Created to be well and strong and beautiful, she long ago sacrificed her constitution, and has ever since been living on her by-laws. She has made of herself an hourglass, whose sands of life passed quickly by. She has walked when she should have run, sat when she should have walked, reclined when she should have sat. She has allowed herself to become a mere lay figure upon which could be fastened any hump or loop or farthingale that fashion-mongers show; and ofttimes her head is a mere rotary ball, upon which milliners perch whatever they please — be it a bird of paradise, or beast, or creeping thing. She has bedraggled her senseless long skirts in whatever combination of filth the street presented, submitting to a motion the most awkward and degrading known to the entire animal kingdom; for nature has endowed all others that carry trains and trails with the power of lifting them without turning in their tracks, but a fashionable woman pays lowliest obeisance to what follows in her own wake; and, as she does so, cuts the most grotesque figure outside a jumping-jack. She is a creature born to the beauty and freedom of Diana, but she is swathed by her skirts, splintered by her stays, bandaged by her tight waist, and pinioned by her sleeves, until — alas, that I should live to say it! — a trussed turkey or a spitted goose are her most appropriate emblems."— *E. E. K., in Pacific Health Journal.*

FROM "PARACELSUS."

TRUTH is within ourselves; it takes no rise
From outward things whate'er you may believe,
There is an inmost centre in us all,
Where truth abides in fullness. . . .
. . . . . and to know
Rather consists in opening out a way
Whence the imprisoned splendor may escape,
Than in effecting entry for a light
Supposed to be without. Watch narrowly
The demonstrations of a truth, its birth,
And you trace back the influence to its spring
And source within us, where broods a radiance vast,
To be elicited ray by ray as chance shall favor.
— *Browning.*

THE INFLUENCE OF OCCUPATION ON LENGTH OF LIFE.

DURING thirty-four years and eight months there died in the State of Massachusetts 161,801 men over twenty years of age, whose occupations were specified in the registry of their disease. The average age at which they died was fifty-one years.

It is noticeable that of all who died, the cultivators of the earth attained the highest average age, about sixty-five and a half years, and they made up one fifth of the total number. We all know why farmers as a class should live to a ripe old age. They enjoy good air, and are free from many of the cares that beset those living in cities, to say nothing of the constant noise and excitement which destroy the nerves and rack the system. It is rarely that a farmer dies before his hair is gray. Farmers, as a rule, too, do not to any degree indulge in alcoholic beverages. One important fact must be taken into consideration concerning the farmer and his age, which is that the weaklings of the farmer's family, do not, as a rule, remain on the farm after attaining an age fitting them for some pursuit. Such are sent to cities to choose a trade or profession, and only the strong and healthy ones who are fitted for the work are retained upon the farm.

The class next to the farmers in the average of life is that class called "active mechanics abroad," such as brickmakers, carpenters, masons, tanners, millwrights, riggers, calkers, slaters, and stone-cutters; but the average age of the twelve thousand of those who died in Massachusetts during the period mentioned, was much below that of the farmers. It was only about fifty-two and three-fourths years,— a little over a year more than the average age of all the classes together. Of all these outdoor trades, the ship-carpenters showed the highest age — more than fifty-nine, and the slaters, who pursue a dangerous calling, the lowest — about forty.

Next to the active mechanics abroad come the professional men, whose average age at death was over fifty-one. Of this class the longest-lived were the judges and justices.

In some countries, clergymen are the longest-lived; but in Massachusetts they fell below all these classes, the average age of the 1,000 of them who died during the thirty-four years being only a little above fifty-nine. Of the professional men, those set down as students died at the earliest age, the average being only about twenty-three; then came the professors, well over fifty-seven years; then the lawyers, fifty-six years; then the physicians, over fifty-five years; public officers, fifty-five. Sheriffs, constables, and policemen died at the average age of fifty-three, while editors and reporters were gathered into the tomb before they had completed their forty-seventh year. The lives of comedians were also short, hardly reaching thirty-nine years on the average; artists also died early, their average being forty-four years. Bankers lived on the average to more than fifty-nine years; merchants, over fifty-four; manufacturers, fifty-two; and innkeepers and brokers, fifty years. The shortest-lived of this class were the telegraphers, who died at the average age of twenty-eight. Railroad agents and conductors die when about forty years of age, druggists and apothecaries at forty-two, while saloon and restaurant keepers were put to final rest at forty-one.— *Washington Star.*

PHYSICAL TRAINING UNDERLIES SUCCESS.

"THE attention which is now being given to physical culture and health, often raises a question as to their value as a basis for success in life. Occasionally, some man who has risen to eminence in his chosen profession, and reached a ripe old age, declares that he has never taken any physical exercise that he could avoid, and attributes his success and long life to this fact. Then, again, some physician startles the world by asserting that all exercise over and above what is required by one's occupation, is injurious to health. It would be impossible, within the limits of this brief article, to meet the exceptional conditions that probably prompt such radical assertions as these. But over against these exceptional cases may be arrayed such a mass of facts to the contrary that one is amazed at the temerity of a man who would attempt to refute, by a single assertion, the experience of ages. Looking at the subject largely, we find plenty of evidence that the nations that have given most attention to the development of the body and the care of the health, have not only been of a superior quality physically, but they have invariably attained the greatest mental pre-eminence, and have excelled in the arts of war and of peace. According to Grote, the historian, Greece devoted more time to the physical training of her youth than to all other branches of education combined, and yet Galton tells us that the Greeks, as a people, were as superior to us in intellectual ability as we are superior to the African negroes. Among modern nations, Germany, England, and the United States rank the highest in mental attainments and in industrial and commercial success, and yet these nations give more attention to the physical training and health of their school children than any others, through their admirable systems of gymnastics and athletic sports and games. If we seek for further evidence of mental superiority associated with fine physiques, we can find it in smaller groups than those represented by races or nations. The Fellows of the Royal Society in England probably represent as high an order of intellectual ability as any single group of men that can be selected. Yet, upon the evidence of the committee on anthropometry from the British Association for the Advancement of Science, these men average sixty-nine and three-fourths inches in stature. . . . The average Englishman, including all classes, is about sixty-seven inches in height. . . .

"At Harvard University, it has been found that the percentage of scholarship men who show a high degree of physical power, as indicated by the strength test, is fully as large as that of the great body of students, while the percentage of weaklings is really less. In 1891, Dr. William T. Porter found, from the data obtained by the examination of thirty thousand school children in St. Louis, that, among the pupils of the same age, those who had succeeded in getting into the highest grades were the tallest and weighed the most, and that those who were in the lowest grades were the shortest and weighed the least."

"The twenty-nine distinguished Americans whose names were selected to adorn the 'Hall of Fame,' at the New York University, will be found to have been considerably above the average in height and weight; to have lived, upon an average, over seventy years; and to have been blessed with good working constitutions and very good health."

"If the life one would lead is largely

a mental one,— and I have assumed all through this paper that the only success worth striving for is based on superior intelligence,— the health and tone of the brain are entirely dependent upon the condition of the heart, stomach, lungs, and other bodily organs. The ability of these organs to do their work, and properly nourish the brain and nervous system, must either be inherited or acquired. It is the chief province of physical culture — or physical training, I prefer to call it — to improve the condition of the vital organs."

"The first effect of active exercise is to increase respiration; that is, to make one breathe faster. This tends to quicken the action of the heart, so that it pumps the blood more rapidly through the body. But blood and lymph are to the bones, muscles, and nerves, and other parts of the organism what food is to the body as a whole. They strengthen and nourish the various parts, and make them increase in size, power, and efficiency. The heart, lungs, and stomach, in return, are repaid for their efforts by an increase in their functional capacity; for it is a law of physiology that every bodily organ strengthens and enlarges in proportion as it is exercised, and shrinks and becomes enfeebled if it be comparatively unattended to and unemployed. Thus it is possible, through the influence of the will on the nerves and muscles, to start up increased chemical action in different parts of the body, and, in that way, attract to it an increased supply of blood. In this way it is possible to develop and strengthen different parts of the body or different parts of the brain. If the brain is used excessively, it will rob the muscles of their just share of the body's nutriment; or, if the muscles are overdeveloped, it will tend to impoverish the brain. In both cases, the heart, stomach, and lungs may be weakened by the excessive drain upon them, and be the first to cry out for less work or more food; for these organs, though of fundamental importance, are the slaves of the master-tissues, nerves, muscles, and brain.

"In primitive times, when every man was his own farmer, hunter, carpenter, blacksmith, etc., the ordinary duties and employments of life were sufficiently diverse to bring all parts of the body into active exercise. But times have changed. Now, a man does some one thing for himself, and everything else is done for him. The minute division of labor and the extensive use of steam and electricity have wrought most radical changes in our methods of working and living. Not only is all the mental work done by one class, and all the physical work by another class, but even the mental and physical work are so divided and subdivided that it is possible for one to perform some necessary function in the business or industrial world by the employment of but very few muscles and faculties. This tendency to specialize, though it may lead to the successful development of an institution, a city, or a community, makes it absolutely necessary that the individual man should have some form of exercise or recreation to bring his unused faculties into action, and preserve a proper physical and mental balance, which alone insures health.

"Just what the best physical training is for each individual, it is difficult to state, as a great deal depends upon hereditary influences, present environment, and past and present forms of activity. Many persons inherit so much vital capacity — just as persons sometimes inherit pecuniary capital — that they can live and thrive upon it a long time without making any effort to improve upon their original endowment. Others inherit only a train of physical and mental deficiencies, which, like other ancestral

debts, have to be paid before the individual can begin to accumulate anything for himself. This class in the community has a hard struggle, and is severely handicapped in the race for the prizes and successes of life. The only course for such people to pursue is to enter, at once, hopefully and courageously, upon a systematic attempt at body-building. I can recall hundreds of cases that have thus made amends for a poor inheritance, and finally added greatly to their original stock of strength and vitality.

"Furthermore, if the environment is favorable, a very little regular physical exercise will keep one in good condition. By environment, in this case, I mean fresh air, suitable temperature, proper food, clothing, bathing, dwellings, and various hygienic conditions and surroundings that tend to promote health. Persons so agreeably situated may often find, in certain mental pursuits into which they enter earnestly and enthusiastically, a physical equivalent for a certain amount of bodily exercise. People who take large views of life, and fully realize the dignity and importance of their missions in the world, like many of the distinguished men I have mentioned, often experience this physical equivalent for exercise in their mental work. When people so constituted read, write, speak, or think, they do so all over, and feel the effects of it in every fiber of their being. But, unfortunately, most of us are not so highly organized, and have to resort to other methods to assure good physical results.

"We have seen that the parts most used are the parts most developed; and, if they are used exclusively or excessively, they are developed at the expense and to the neglect of other parts. The intense rivalry and keen competition which are so apparent to-day, in all the pursuits of life, make this tendency to an excessive development in one direction very marked. We see it even in the various forms of athletics, when success is made the chief end in view. Thus, the gymnast cultivates his arms, the oarsman his back, the runner his legs, etc. Although the nervous system will permit of a certain amount of one-sided development with impunity, where health, strength, and endurance are to be cultivated, it is always better that the activity should be general, rather than local. A frequent change of organic activity, followed by complete rest, is the most crying need of the hour. Those who are engaged in brain work should seek some form of exercise that brings the greatest number of muscles into play with the least expenditure of nervous energy, like rowing, swimming, etc. Those whose occupations call for powerful muscular efforts through the day will find recreation in the evening, in mild forms of mental activity, like games of checkers, dominoes, or a good lecture, concert, or drama. Those who use their legs excessively should use their arms and chests more, and vice versa. A change of activity is the chief thing necessary, and just what this change would better be will depend upon the individual's usual employment.

"By thus engaging in some mild form of recreative exercise as a systematic thing, varying it a little from day to day, it is possible for one not only to improve his physical and mental condition, but also to add to his stock of energy and constitutional vigor, upon which health, happiness, and success so frequently depend."

"If the student of biography will look up the life history of the men who have been and are the foremost leaders of the world, in every branch of service and in every kind of endeavor, he will find them, almost invariably, men of sound bodies and vigorous minds."—*The Dietetic and Hygienic Gazette.*

Physical Culture at West Point.

In the March number of *Success,* H. J. Koehler, Physical Director U. S. M. A., tells of the unremitting physical training that gives the West Point man his superb physique and great endurance. If such physical training is necessary to the army man, it surely has a great significance to the man in business or professional life.

Lieutenant Koehler begins his article thus: —

"I beg your pardon, sir; but er — ah, — don't the cadets wear corsets?"

"Yes, madam," was the reply.

She turned to her companion, of her own sex, saying, triumphantly: "I told you so."

"I beg your pardon, madam," continued the officer; "but you didn't ask me of what the corsets are made, if I understood aright."

"Well, what are they made of?" asked his interrogator, in surprise.

"Muscles, madam."

Any man or woman can acquire, by the same proper exercise, the same kind of corsets, made only of muscles, that give a West Point cadet his enviably perfect waist, admirable carriage, and strength of body.

"It is a principle now beginning to be generally recognized that there can be no real success in life without sound, practical, physical development. This is the keynote of the bodily training of a West Point man. Nowhere else in the world can a body of young men be found whose average muscular fitness reaches as high a standard as at the United States military academy. Those who have witnessed the erect carriage, superb bearing, and splendid strength of the cadets have been apt to wonder what process can so quickly transform young men. Yet there is no secret about the training. Any young man of the most ordinary physical powers can gradually acquire the strength, grace, and agility of a cadet, and thus lay the corner stone of manly success in life.

"From the beginning of the training at West Point, the utmost importance is attached to proper breathing, without which there can be no physical excellence. At the beginning and end of each drill the men are required to devote several minutes to inflating and deflating their lungs. They breathe slowly and deeply, inspiration being through the nostrils, and expiration either by nose or mouth. Holding the breath until it can be no longer held is absolutely harmful. Inhalation may be accompanied by any part of an arm or shoulder exercise that will elevate and distend the thorax, such as raising the arms laterally, while that part of an exercise which tends to contract the walls of the chest should be accompanied by exhalation, as lowering the arms laterally from the shoulders or from overhead. When exercise is followed by labored breathing, it is a certain sign that the work has been excessive, and such an extreme is a frequent cause of injury to the heart or lungs. Palpitation or distressful breathing calls for immediate and absolute rest, which is best obtained by lying flat on the back, with arms and legs outstretched.

"Exercising is never permitted immediately before or after a meal, digestion being considered much more important. During the exercise, water, not too cold, may be taken in small sips, but merely rinsing the mouth is recommended. After exercise, the body must return to its normal condition before eating is allowed. Cadets, during exercise, wear soft canvas shoes, uniform trousers, and gray flannel shirts, wool next to the skin being considered indispensable. Bathing is ordered in connection with exercise, for no man who merely cleanses

the surface of his skin can be expected to possess a clean cuticle. A bath after a good 'sweat' accomplishes the flushing of the millions of perspiration ducts in the body. Though a cold bath is now generally preferred for healthy men, it is impossible to lay down an inflexible rule. All depends upon the condition of the individual, and he alone can be the judge. Any bath that leaves the bather in a state of mental depression and physical lassitude must be avoided, as only that bath which leaves one better in mind and body is beneficial. For cleansing the body a warm bath, with plenty of soap, is advised. For stimulation, a cold plunge bath of short duration, taken before the body cools, is best. This latter bath must be followed by a brisk rubbing with a coarse towel. Where neither is possible, a sponge bath with tepid water, followed by brisk rubbing, is the one to use. In this connection, bathing the stomach by drinking water freely, both at rising and retiring, is strongly recommended to all."

The Latest Fad of the New York Girl.

The punching bag, otherwise known as the striking bag, solves the problem of indoor exercise for girls. By the use of this apparatus every muscle of the body is brought into play, and the stout girl grows thin, and the thin girl grows plump. By the daily use of one of these bags, lightness of foot, a graceful poise, and a springy step develop even to a greater degree than by means of dancing lessons. The waist and abdomen are reduced in size, and the weak muscles of the trunk are so strengthened by its use that the amateur athlete holds herself straight with ease and comfort.

I know of one girl whose neck was so thin that she could not wear a low-necked gown, but after six months of this exercise the muscles of her neck have developed wonderfully. Another girl, whose lungs were in a delicate condition, now has a splendid chest capacity, as well as firm, hard muscles.

The mental effect of this exercise is exhilarating, as the girl must be constantly on the alert, and her mind must have complete control of her body.

As girls well know, the object of all exercise is to make the blood circulate perfectly, and this cannot be better accomplished than by bag-punching. By this practice the complexion takes on the velvety texture and the peaches and cream tints which are so much desired by every girl; or at least the complexion comes as near this ideal by the use of the punching bag as it can by any means.

Many cases of dyspepsia and the blues have been vanquished by the punching bag.

The various advantages of this exercise will appeal to you at once. No opponent is necessary, and all you need at any time is the bag itself. You never have to wait for some one else to get ready. The speed of action may be regulated at will.

No harm can result from this exercise. When you get tired, just stop and rest. You need no instructor, as the motions will come to you naturally.

The bag should hang at about the height of the shoulders. Then you will strike straight out from that level. This stroke calls into play more muscles than any other. If the bag is hit a little above the center, it will not rebound, and your nose will be spared many a bruise.

No special costume is necessary for the exercise. There is a great variety of bags. I think, however, that a choice will be more satisfactorily made after a girl has looked at the different kinds for herself. The prices vary from ninety-eight cents to ten dollars. A pair of light

knuckle gloves, which cost fifty cents a pair, is also necessary.—*Emma E. Walker, M. D., in The Ladies' Home Journal for March, 1902.*

Foolish Foot Gear.

The covering of the foot is a matter of grave import in relation to bodily welfare. Mrs. Morris L. King, who has given much study to physical culture, says: —

"One of America's greatest surgeons was recently heard to say that modern women are never allowed to be anatomically normal after they are two years old. This statement seems more extreme than it really is. As soon as a child begins to walk about, its shoes are made stiffer and higher around the ankles; thus its weight is thrown back, and the habits of walking on the heels and of throwing forward the hips are begun. From this time on, shoes are never wide enough and flexible enough across the ball of the foot, nor full enough over the instep and ankle. The feet are being grown to suit the fashion of the day. The wrong carrying of the weight of the body makes ills that are patched up by palliative measures of various kinds, but are almost never radically attacked by righting the body's most important relation to its base of support; popular fallacy is so much easier to follow than radical remedy, at least for the tradesman. And by the time the average child is five years old, the perversion of its physiological and personal harmony is well under way."

Disease in New York Milk.

What to Eat is responsible for the following remarks and statistics concerning the recent investigation of the New York milk supply. What is true of New York milk is in all probability true of the milk used in many other cities and towns throughout the land. It is at least wise for all consumers of milk to investigate the source from which it comes.

"The extent to which human rapacity will go in the poisoning of humanity is revealed in the recent investigation of the milk supply of New York City, conducted by the Rockefeller Institute. The disclosures made by this investigation, which covered a period of seven months, are astounding when it is remembered that bacteriological research and sanitary science have reached a point that should insure the purity of all food products that are of such universal consumption as milk, and which form such an important element in the dietary of human beings.

"According to the carefully prepared report of the Rockefeller Institute, after the most complete investigation ever made in the milk supply of that city, most of the milk fed to the people of New York is a menace to the public health. The bacteriologist found that the milk was not only adulterated, but polluted. The investigators did not stop with vague generalizations regarding the danger lurking in impure milk, but actually traced 330 outbreaks of epidemic diseases to polluted milk. Of these 195 were epidemics of typhoid fever, and 99 of scarlet fever. The sources of infection in 147 typhoid fever cases and in 68 scarlet fever cases were traced to the illness of persons at the dairy farms. In other cases the mode of infection was through the storage of milk near infected rooms, or the poison was brought by cans or bottles from patients' houses.

"Milk cans were found to be reeking in filth, many of the milk depots being unsanitary and unclean, totally lacking in proper facilities for cleansing the vessels. As a result of all this, the milk supply of New York swarmed with disease germs, and carried poison and death

into thousands of homes. Some idea of the wholesale murder wrought by this traffic in polluted milk, may be gained from the fact that in 1900 not less than 6,055 deaths from disease in children under five years were directly traceable to the character of the milk used as food.

"Here is a form of murder that goes practically unpunished in the largest city of a country that boasts loudly of its twentieth-century advance in civilization!"

On the same page of the magazine we find the following concerning Chicago meat: —

"Even more astounding than these revelations is the statement made by the Assistant State Food Commissioner of Illinois, in an address before the Retail Merchants' Association of the State, to the effect that he had located four slaughterhouses for horses, mules, and donkeys in Chicago. 'Real beef is never handled in these places,' said the Assistant Food Commissioner, 'but their delivery wagons run to markets, restaurants, and free-lunch saloons with great regularity.'

"Now, there are a great many people who can contemplate a horse hamburger or a donkey cutlet without any creepy feeling, provided the horse and donkey are young and tender, well-fed and well-bred. Indeed, there are many who will stoutly contend that the horse's dietary and his habits of life make his flesh far preferable to that of the common barnyard hog for eating purposes.

"But the young, well-fed, healthy horse or donkey is too valuable to be worked up into hamburger steaks and sausage. 'Ring-boned, spavined, worn-out, diseased nags' are the ones that are worked up into corned-beef hash and sausage in Chicago, according to the Assistant State Food Commissioner. Even horses that have glanders are killed in great numbers for this sort of traffic.

"Think of it, ye fastidious Chicagoans, consumers of ring-boned, spavined, glandered horse hamburger and donkey sausage! And yet the public is strangely indifferent to proposed measures for placing all foods and food products under rigid federal inspection and control."

Increase of Longevity in the United States.

A bulletin has recently been issued by the United States Census Bureau, in which a comparison is made between the death rates in that country for 1890 and 1900, which shows that there was a falling off of nearly ten per cent in the proportion of deaths to population during the last decade of the nineteenth century.

The average age at which Americans now die is put at 32.5 years, as against 31.1 in 1890, indicating a gain in longevity of 13 per cent. These figures hold good, however, only for cities of eight thousand inhabitants or more, and it is doubtful if the improvement has been as rapid in the rural regions. The bulletin shows, moreover, that the "great white plague," which for so many years claimed more victims than any other malady, no longer stands at the head of the list. The death rate from consumption was 245.4 in every 10,000 persons in 1890, and only 190.5 in 1900. No other disease shows so great a falling off, although diphtheria and bronchitis, cholera infantum, and the diarrheal disorders of adults, general debility, and typhoid fever closely approach it. The improvement is, of course, partly due to the betterment of sanitary conditions, but some share in it must also be attributed to the more efficient manner in which consumption is dealt with, and to the efficacy of antitoxin in checking the ravages of diphtheria.

There are, however, a few diseases which show an increased mortality. From pneumonia there were 191.9 deaths among every 10,000 people in 1900, whereas there were only 186.9 in 1890. The difference, though slight, is sufficient to put pneumonia higher in the list of destroyers of human life than consumption. The increased prevalence of pneumonia is doubtless to be ascribed to influenza, the deaths from which, according to the census bulletin, rose from 6.2 in 1890 to 23 in 1900. The death rates of cancer, apoplexy, and disorders of the heart and kidneys have also markedly increased. — *British Medical Journal, Nov. 16, 1901.*

The Influence of Maternal Inebriety on the Offspring.

Sullivan, in Launder's "Yearbook on Medicine and Surgery," says: —

The death rate among the infants of inebriate mothers is nearly two and a half times that among the infants of sober women of the same stock. In the alcoholic family there is a decrease of vitality in the successive children; for instance, in one family the first three children born were healthy, the fourth was of defective intelligence, the fifth was an epileptic idiot, the sixth was deadborn, and the seventh pregnancy ended in an abortion. There was a sensibly higher death rate in cases in which the maternal inebriety was developed at an early period. Sober paternity had little influence, and in face of maternal drunkenness, might be almost neglected as far as the vitality of the offspring is concerned.

Conception in drunkenness has a distinct influence, as was shown by the fact that of the seven cases in which the condition was noted, in six the children died in convulsions in the first months of life, and in the seventh case the infant was stillborn. On the other hand, imprisonment during pregnancy, if the imprisonment began early in the pregnancy and lasted nearly all the time, seemed to diminish the evil effects; but the difficulties in drawing conclusions regarding this point were great. Of the children of drunken mothers that survived beyond their infancy, 4.1 per cent (a very high percentage) became epileptic (9 out of 219). These results show the danger to the community of the female drunkard. — *Charlotte Medical Journal, October, 1901.*

The Fruit Cure.

The curative value of fruit is becoming more and more insisted upon by those who make a study of dietetics. Grapes are recommended for the dyspeptic, the consumptive, the anemic, and for those having a tendency to gout and liver troubles. Plums, also, are said to be a cure for gouty and rheumatic tendencies. The acid fruits, especially lemons and oranges, are particularly good for stomach troubles and rheumatism.

It is not sufficient, say the advocates of the fruit cure, to eat a small quantity at breakfast or dinner. One should eat from two to eight pounds of grapes a day, or, if oranges are the curative agency, the number to be eaten in a day may vary from three to six.

A healthy condition of the body depends upon a perfect balance of foods taken. There are many other factors entering into the question, but this feature must not be forgotten. Few people there are who can keep healthy without fruit. — *The Syracuse Clinic.*

Esthetics in the Stock Yards.

A French writer makes the following striking comparison: —

"To garner in the golden grain is a symphony. To gather the fragrant, daintily painted, and velvety cheeked fruit is an anthem. Where do you find anything esthetic or ethical in the stock yards or meat market? The artist can, with the most bewitching grace, transfer to his canvas the lovers in an orchard plucking fruit. What painter would depict his lovers in a slaughterhouse, cutting the throats of lambs, quartering beef, or salting down pork?"

Rules for Clothing.

Human clothing has three *raisons d'être,* which, in order of precedence, are these: —

I. Health.

II. Decency.

III. Beauty.

Health demands —

1. Maintenance of proper temperature of the body by exclusion of excessive heat or cold.

2. Protection from injury by rain, snow, dust, dirt, stones to the feet, insects, etc.

3. Preservation of liberty of action to all the organs of the body, and freedom from pressure.

Decency demands —

1. Concealment of some portions of the human frame.

2. Distinction between the habiliments of men and women sufficient to avert mistake.

3. Fitness to the age and character of the wearer.

4. Concealment, when possible, of any disgusting personal defect.

Beauty demands —

1. Truthfulness. The dress must be genuine throughout, without any false pads, false hair, or false anything.

2. Graceful forms of drapery.

3. Harmonious colors.

4. Such moderate consistency with prevailing modes of dress as shall produce the impression of sociability and suavity, and avoid that of self-assertion.

5. Individuality: the dress suiting the wearer as if it were an outer body belonging to the same soul. — *Frances Power Cobbe.*

A New Fruit.

There is every reason to suppose, says the *Detroit Medical Journal,* that before long a most delicious fruit, new to America, will dominate our markets; already a few specimens have found their way to the seaboard cities. This is the mangosteen — native to the Moluccas and extensively cultivated in Ceylon and Java, and latterly introduced to Jamaica and other portions of British West Indies. It is about the size of a small orange, spherical in form, and when the rind is removed, a juicy pulp, "white and soluble as snow," is revealed, possessing a most delicious flavor — something like a nectarine, with a dash of strawberry and pineapple combined. It promises, in a few years, to supersede the orange in popular favor, and attempts are already being made to introduce it into the Southern United States.

Chinese Proverbs.

Deal with the faults of others as gently as with your own.

A man thinks he knows, but a woman knows better.

Armies are maintained for years to be used on a single day.

Oblige, and you will be obliged.

If you fear that people will know, don't do it.

He who rides a tiger cannot dismount. — *From Giles's History of Chinese Literature.*

EDITORIAL.

RECENT EXPERIMENTS SHOWING THE TRUE NATURE OF ALCOHOL.

P. COLOLIAN recently published the results of a number of experiments for determining the poisonous effect of the various alcohols. The results show that all alcohols are powerful poisons, and that their poisonous effect increases regularly with increase of density and increase of volatility.

In these experiments the alcohol was added to the water containing the fish which was the subject of the experiment. The mortal dose of ethylic alcohol was found to be ten to fifteen parts of alcohol to one thousand parts of water. One-half part of amylic alcohol to one thousand parts of water was found to be sufficient to produce death.

In the face of such facts as these it seems idle to discuss further the question of the food value of alcohol. If ethylic alcohol is a food, then methylic alcohol, wood spirit, and fusel oil are also foods. All the alcohols belong to the same family of chemical substances, and are possessed of practically identical properties, only differing in the intensity with which their characteristic effects are manifested.

Cololian also points out the interesting fact that while other poisons, such as nicotine and atropine, are wholly innocuous to certain classes of animals, as rabbits and goats for example, alcohol is a universal poison. It kills every living thing. Darwin, in his experiments upon insectivorous plants, shows that alcohol is also highly poisonous to the drosera and other plants, the vapor of alcohol alone being sufficient to paralyze the activities of vegetable life, and even to destroy it when the plant is exposed to its action for several hours.

Kleefeld, by the adoption of a new method of experimentation, has shown that when introduced into the circulation, alcohol produces an almost instantaneous retraction of the minute branches of the neurons, at least of a great number of them. He has also shown that alcohol produces various deformities of the neuron. When alcohol is given in less than a fatal dose, these various effects disappear with the disappearance of the symptoms of intoxication. Kleefeld's experiments were made upon rabbits. Two openings were made in the head, one on each side. After the recovery of the animal from the shock of the operation, a small dose of well-diluted alcohol was injected into the animal, and fifteen minutes later the wound of the scalp was opened, and a portion of the brain tissue snipped off, and submitted to microscopic examination. A couple of days later, after the recovery of the animal from the effects of the alcohol, another specimen was obtained in the same way from the opposite side of the brain. Examination showed the characteristic appearance of the effect of alcohol in the first specimen, and normal cells in the second.

One of the most interesting facts brought out by Kleefeld is that this deformed appearance of the cerebral cells following the use of alcohol, is the immediate result of the presence of this poison in the blood, and is not the result of degeneration, as supposed by Berkley and others. It is, of course, evident from Berkley's observations that in the habitual drunkard this deformed condition of the cerebral cells is a fixed condition, involving a large share of the cells of the external gray layer of the brain; but the same conditions exist temporarily in every man who is under the influence of alcohol. The same is found to be true of ether, chloroform, opium, cocaine, and other narcotics.

Kleefeld's observations brought out an-

other point of considerable interest; namely, that the cells of the bulb, or lower part of the brain, are much more resistant than those of other portions of the spinal cord and of the cerebrum. This accounts for the fact that the respiration and the action of the heart are not materially interfered with, even when the higher functions of the brain are completely annihilated, as when a man is dead drunk.

In summing up the results of his observations, Kleefeld remarks: "The modifications which we have observed are capable of explaining all the phenomena of drunkenness,— the disorder of ideas, the suppression of the reasoning faculty, the incoordinated movements, the hallucinations, are all due, as we believe, to a partial retraction of the neurons to pathological circuits organized in the centers. This is the explanation which we have already given of the phases of narcosis under the influence of chloroform."

Kleefeld has certainly furnished evidence so convincing that no one can longer doubt that alcohol is an anesthetic agent, and its effects are always those of a depressant, resulting from a displacement of the neurons as well as other cells, of which abundant proof has been furnished; as, for example, in relation to the influence of alcohol upon blood cells.

In the face of these facts, it should no longer be maintained by any one who is abreast with the modern progress of medical science that alcohol is a tonic, a useful stimulant, or in any other way an aid to any nutritive or therapeutic process. Kleefeld's experiments indeed leave us to doubt very seriously whether any drug whatever can serve as a useful stimulus to protoplasmic activity.

A CHINESE SUGGESTION IN DIET.

The New York papers recently announced a great dinner to be given to Mayor Low by the Chinese merchants of the city, in which only delicacies from the Celestial kingdom were to be served. Among the rare dainties mentioned were "chickens fed exclusively on pineapple and mushrooms, and ducks fed on fruit."

It is interesting to note that the Chinaman has discovered the influence of diet on the animal body. He knows that the flavor of duck's flesh will be readily modified by the character of its diet, even though it had never occurred to him that the same principle applies to his own tissues as well. The flesh of a duck fed on fruit must certainly be much sweeter than that of one fed on toads and worms, and a chicken fed exclusively on pineapples and mushrooms must certainly have a very different flavor than one allowed to pick its breakfast from a heap of barnyard litter. If the Chinaman makes no practical application of this knowledge, and continues to regale himself with stewed rats, sharks' fins, whale eggs, and other repulsive dishes, he is doing no worse than the average American. Every sportsman knows that the flesh of canvasback ducks is sweeter than that of the ordinary bird, for the reason that it is an exclusive vegetable feeder, living on the sweet bulbs of water lilies which it pulls up from the ocean bottom. Well-informed farmers often feed their chickens on sunflower seeds for the purpose of improving the flavor of their flesh and eggs, and every pork raiser knows that if he wishes to maintain the reputation of his hams and spareribs, he must keep dead calves, cats, and pigs out of the feeding trough. Nevertheless the same intelligent American feeds himself on the very sort of thing that he knows will produce disgusting flavors in swine's flesh. The beefsteaks, sausage, fried ham, meat pies, and fricasseed and deviled dishes of various sorts upon which he daily dines, would produce pork chops so unpleasant in flavor that they would be immediately turned over to the dog-meat man.

These facts are well enough known to him in a general way, though he may never

have put them in just this form and never have stopped to reflect that the same thing which happens to the tissues of the pig, must happen to his own when the same causes are set in operation. The average American shows good hard sense in relation to the trifling affairs of life, at least such as relate to commercial transactions and minor matters of business, but unfortunately generally neglects to apply the same sound principles to matters of greatest importance.

ENGLISH DECAY.

THAT England as well as France is becoming a degenerate nation is evidenced by facts too obvious to be ignored. No observing person who has spent a day strolling through the busy streets of London, or riding through its crowded thoroughfares on an omnibus top, could ever fail to be impressed by the numerous evidences of physical degeneration apparent in the forms and faces of the passing multitudes. The weazened figures, weak and unsymmetrical faces, and general look of feebleness of a large share of the dwellers in English towns, and particularly in the rising generation, are unmistakable evidences of the same physical deterioration going on in England which has for many years been recognized as a condition in France.

An official inspection of public schools made a few years ago, showed that a large proportion of the children were more or less deformed, and were suffering from physical defects of various sorts.

The enlistment of soldiers for the Boer war has brought out another evidence of national decay which has incidentally become public through the newspapers. The English government is finding considerable difficulty in keeping the ranks of its army in South Africa full. The chief difficulty seems to be to find men who have good teeth. It is stated that sixty per cent of the applicants are rejected on account of having unsound teeth. The applicants are for the most part young men,—according to Rudyard Kipling, "striplings from the street."

The English government is considering the advisability of supplying its army with false teeth to overcome this difficulty, which is justly recognized as a serious one. False teeth will fill the gaps in the soldiers' mouths, but will not make good the defects of constitution which are clearly shown to exist by this premature decay of the bony structures. Decay of the teeth is just as much an ulceration as is a lesion upon the surface of the body, and is a certain indication of constitutional decay.

This fact ought to alarm the English government far more than the most unfavorable report which could be received concerning the Boer war or the commercial invasion of England by American trusts. What the young men of England need most is, not artificial teeth, but deliverance from artificial habits. Grinders are a necessity, but gumption in diet is equally needful. The mushes, soups, and soft foods, with the roast beef, coffee, and condiments, which make up their bill of fare, spoil the stomach and lessen the vital resistance, making the body a favorable habitat for germs which cannot grow in the healthy organism, and these cause not only decay of the teeth, but decay of the brain, nerves, and every bodily organ and function.

It is encouraging to know that the International Health Association is organizing a vigorous health campaign in England. The health monthly which this association has just started, and which bears the same name as this journal, the health-food factory which it has equipped and set in operation, and the Sanitarium and Training School for nurses which are just now being organized, will accomplish a hundredfold more good for the British Islands than the false teeth which the government proposes to furnish to its soldiers. We would also respectfully suggest to His Majesty's government that while they are supplying the

soldiers with store teeth, it might be well also to make an effort to save the teeth which are left by supplying more fruit and whole-meal biscuit, and diminishing the beef ration and its unwholesome concomitants.

PROGRESS IN THE ANTI-TOBACCO MOVEMENT.

THE following paragraph which we clip from a Western newspaper is a striking indication of the growth of sentiment against the use of tobacco: —

"Many Missouri papers are strongly commending the management of the Frisco system for its order forbidding the use of tobacco by passenger trainmen in uniform on duty, and by employees in general around railway stations. Trainmen, ticket agents, baggagemen, and all employed on passenger trains, or in or about railway stations must comply with the mandate. While primarily aimed at cigarettes, pipes, and cigars, the order embraces chewing tobacco as well."

It could not perhaps be maintained that tobacco is used by a smaller number of persons at the present time than formerly, but those who are opposed to the use of tobacco are certainly becoming more intense and outspoken in their opposition, and more insistent upon being relieved, at least to some degree, from the annoyances of this horrible habit. It seems almost beyond belief that in this enlightened and civilized land many men and women of clean habits and refined tastes and manners should be compelled to come so constantly and closely in contact with the disgusting and sickening odors and sights imposed by the use of tobacco. In railroad depots, stores, cars, and steamboats, in fact in most public places, it is practically impossible to get away from the odor of tobacco. In depots, hotels, and other places much frequented by men, one often sees mammoth spittoons, almost big enough for a bathtub, reeking and malodorous with the contributions of hundreds of chewers and smokers of the filthy weed. The Frisco road has set an example which is worthy of imitation. If all nontobacco users would combine in vigorous demand for reform, many other railroad lines might be induced to do the same.

ANSWERS TO CORRESPONDENTS.

Falling Hair — Science in the Kitchen.— M. W. R., New York: "1. What causes the hair to fall out in spots in the beard? When it comes back, it is very thin, and much lighter in color. 2. Is there any place in or near Brooklyn where I can obtain a copy of 'Science in the Kitchen'?"

Ans.— 1. A disease known as "patchy baldness;" it is probably due to parasites.

2. The book may be obtained from the Good Health Pub. Co., Battle Creek, Mich. We do not know that the book is on sale in New York. Instruction in hygienic cookery is being given by Mrs. Perkins, at 400 W. 57th St., New York City.

Excessive Use of Butter.— H. J., Colorado, asks if the excessive use of butter in one's dietary will cause eruption on the skin.

Ans.— Yes.

Gas in the Stomach — Nervousness — Food Combination — Sweet Milk vs. Fat — Tobacco — Flour — Acid Dyspepsia.— A subscriber asks: "1. What causes a dry, parched feeling in the mouth, and gas on the stomach when one wakens in the morning? 2. Why should one become physically nervous at a certain hour during the day, when there is no apparent cause for it? 3. Will milk and rice combined furnish enough nutrition for the human body for an indefinite length of time? 4. How much sweet milk should one consume each day in order to acquire a normal amount of fat? 5. In what way does tobacco affect the stomach and digestion? 6. What is the best brand of flour for family use? 7. Is proapsus ever a direct cause of acid dyspepsia?"

Ans.— 1. Probably indigestion; the result of eating supper.

2. The cause is sympathetic nervous irritation, probably due to indigestion.

3. Yes, if it is well digested, but this is not the best dietary.

4. About two pints.

5. By paralyzing the nerves and glands of the stomach.

6. There are many good flours. Any good graham flour which will make light bread is wholesome. Hulled-wheat flour, manufactured by the Battle Creek Sanitarium Health Food Company is the best of all.

7. Very rarely.

Symptoms of Ill Health.—F. F., New York, inquires concerning direction from which impairment of health may be apprehended when his height is 6 ft. 3 in.; weight, 149 lbs.; age, 48 yrs.; chest inflated measures 36 inches; depleted, 33 inches; waist measures 29 inches; spirometer tests of lung capacity, 225 cubic inches; digestion, fair.

Habits: cold bathing, half-hour daily exercise of trunk and upper limbs, walk of five miles daily, moderate diet of carbohydrates, using little flesh food. Is muscular, nervous, mentally and physically active, and for thirty-three years has not been incapacitated a day from sickness.

Ans. —If digestion is only fair, it is a cause of impaired health. Other symptoms will appear later.

Painful Wart.—Mrs. C., New York, wishes to know what will remove a kind of seedy wart which seems to form under the skin of the hand, and aches and throbs, finally becoming very painful and feverish. Acetic acid has been tried to no avail.

Ans.— It must be cut out.

Milk Proteid.—Y. J. M., Missouri: "Does the Sanitarium Health Food Co. manufacture milk-proteid biscuits? If not, have they anything as a substitute?"

Ans.— No, but they have something better. They manufacture gluten biscuit, which is in every way superior.

Smallpox—Vaccination—Healthful Cookery.—E. J. S., South Dakota: "1. What is the best care and treatment for smallpox? 2. Is vaccination a sure preventive of the disease? 3. Can there be any ill effects from the vaccination? 4. How can we persuade our housekeepers to cook for health, and not alone to gratify the appetite?"

Ans.—1. See "Home Hand-Book," and the writer's work on "Hydrotherapy." The treatment is too complicated to be described in these columns. A physician should be employed.

2. No.

3. Yes.

4. They must be reformed by education through precept and example.

Walla Walla Health Foods—Nut Butter—Soda-Raised Bread—Peach Pits—Yucco—Food Digestion.—F. S., Washington: "1. Do you recommend the products of the Walla Walla Health Food Co.? 2. Can one use other nuts than peanuts in making nut butter? 3. Is it always necessary to cook the nuts? 4. If well baked and toasted, is soda-raised bread injurious? 5. Can one use peach pits in place of hard-shelled almonds? 6. Can you recommend Yucco? 7. Should the more easily digested food be eaten first at a meal?"

Ans.—1. Yes.

2. Yes, any nut can be used in this way, except very starchy nuts, such as the chestnut.

3. No. Only the chestnut and the peanut absolutely require cooking. The other nuts are digestible without cooking.

4. It is injurious on account of the alkali contained.

5. No. They are poisonous. Serious cases of poisoning have frequently occurred.

6. It is as wholesome as other products of the same sort.

7. The whole meal should be made up of easily digested food.

Dandruff.—A. K., North Dakota, wishes to know the cause and cure of dandruff.

Ans.—Dandruff is a parasitic disease of the scalp. The scalp should be thoroughly treated by an antiseptic lotion, bathing with cold water, and friction twice daily. The following lotion would be found useful: Alcohol, three ounces; resorcin, one ounce; castor oil, ten drops.

Food and Sleep.—J. S., Pennsylvania, wishes GOOD HEALTH'S opinion on the following statements:—

"Food may be used to promote sleep, and is most beneficial to nervous persons who have not eaten a very hearty or a very late meal. The digestion of the food seems to draw from the brain the blood which keeps it in a state of activity."

Ans.—The answer to the above is true, but it is far better to draw the blood from the brain by warming the feet than by exciting the stomach. Or, if it is necessary to divert blood into the abdominal veins, this may be done by a wet girdle, thus saving the stomach the labor of digesting the food. One might divert blood from the head to the feet by walking, but this would exhaust one's energies if he were already tired. The effort of digestion is likewise exhausting, and interferes with sleep. It is better when one is wearied to warm the feet, if cold, by the application of a hot bottle, or heat in some other form, or by rubbing. It is likewise better to divert blood into the abdominal

veins by a moist abdominal bandage than by the excitement caused by the digestion of food.

Linen Shirts.—L. D., Illinois, wishes to know whether linen shirts are of any special advantage when worn under wool. If so, why?

Ans.— Yes, for the reason that they absorb moisture from the skin rapidly, and quickly pass it outward, thus keeping the skin dry.

Effects of La Grippe.—Mrs. C. C. C., New Mexico: "Can you prescribe home treatment for a cracking and buzzing sensation in the head, the effects of an attack of La Grippe last February? Cold-water bathing to the waist has been practiced every morning; would daily foot baths and cold "gush" to the knees be beneficial? Is there too much or too little blood in the head?"

Ans.—Probably disease of the middle ear. Cold baths will be beneficial, but probably it is necessary that the ears should be treated by a specialist.

Asthma.—A. B. D., Iowa: "What will relieve or cure asthma?"

Ans.—A cure is not always easily effected. In many cases change of climate is necessary. Digestion must be improved and general health built up by regulation of diet, daily cold bathing, and out-of-door life.

Sour Stomach—Charcoal Tablets—Weak Nerves.—Mrs. S. C., New York: "1. I have an extremely sour taste in my mouth after eating; also, at times, a burning sensation in the stomach, with a great deal of gas in stomach and bowels, but no pain. Am troubled with constipation and cold feet, and sleep a great deal. Strength never lasts throughout the day. Is this not chronic dyspepsia? and what is the cure? Have found great relief in plain charcoal tablets. Are they harmless? My nerves are very weak. Is this not a natural effect of my general condition?"

Ans.—1. Our correspondent is evidently suffering from chronic dyspepsia. The cure consists in regulation of the diet, and building up of the general resistance. Charcoal tablets are harmless, but only palliative. Weakness of the nerves is due to impaired nutrition.

Hunyadi Water.— A Subscriber: Does the regular use of Hunyadi water injure the stomach and bowels? Am troubled with constipation, and this has been found to give relief. Are any injurious results likely to follow?

Ans.— Yes. The use of saline mineral waters is a common cause of gastrointestinal catarrh. The relief afforded to the constipation is only temporary. The final effect is aggravation of the difficulty.

Catarrh of the Stomach.— Mrs. E. O. K., Nebraska: Please give treatment and diet for catarrh of the stomach.

Ans.— The diet should consist of dry, well-dextrinized cereals; that is, such foods as granola, grānut, zwieback, toasted granose flakes, toasted granose biscuit, toasted wheat flakes, with sweet fruits. Nut purées prepared from nut meal and almond cream may be used as a source of fat. The diet must be very plain, two meals a day only. If a large amount of mucus is present, the stomach should be washed out with a stomach tube once or twice a week until the mucus is less freely formed. As the irritation subsides, acid fruits may be employed with advantage, especially orange juice, the juice of grapes, and other fresh fruits.

Fomentation over the stomach night and morning, and the wet girdle worn night and day, are especially useful measures. The general health should be improved by an out-of-door life, sun-baths, and daily cold bathing. The baths should be short, followed by vigorous rubbing and gentle exercise to promote reaction.

Cotton-Seed Oil — Fruit Preserving. — C. K. Smith: "1. Is cotton-seed oil as nutritious as olive oil? 2. Is fruit put up by the 'California Cold Process' perfectly harmless, and as nutritious as that canned in the old way?"

Ans.— 1. Yes.

2. We are not familiar with the process referred to, but experience has taught us to be very suspicious of all cold processes, as chemical preservatives of some sort are usually used.

Burning in the Stomach.— B. E. wishes to know the cause and cure for burning in the stomach after eating. It can be stopped for a time by chewing something, but eating brings it on again.

Ans.— The cause may be nervous irritability of the stomach, possibly gastric catarrh. Avoid condiments, acids, meats, and all indigestible foods. Follow directions given Mrs. E. O. K., Nebraska, for catarrh of the stomach.

Balanced Bill of Fare — Summer and Winter Dietaries — Itching of the Eyelids. —Mrs. A. C., Washington, D. C.: "1. Kindly give suggestion as to balanced bill of fare for small family. 'Science in the Kitchen' and 'Balanced Bills of Fare' seem to allow too large a quantity for one person. 2. What difference should be made in summer and winter diets in reference to nuts and fruits? 3. Give cause and cure for itching eyelids, followed by scaling. 4. Should sensitive eyes be exposed to strong sunlight? 5. What will render them less sensitive? 6. Would you advise the wearing of smoked glasses?

Ans.— 1. Employ the proportions given in "Balanced Bills of Fare," reducing the quantity as may seem desirable. A child weighing thirty pounds requires about one fourth as much as a grown person. The proportions given in "Balanced Bills of Fare," are for hard-working persons.

2. A larger proportion of fats is generally required in winter. Hence, nuts may be more freely eaten with advantage in winter.

3. The cause is probably eczema. Bathe the affected parts with hot water three times daily for ten minutes. Afterward apply a little zinc ointment.

4. No.

5. Relief of the congestion present. Some relief may be afforded by dropping into the eye two or three times a day a solution of boracic acid, four or five grains to the ounce, and bathing with hot water.

6. Yes, whenever the eyes are exposed to bright sunlight or whenever they are sensitive to the light.

Chronic Diarrhea — Thickening of Rectum. — Mrs. H. P., New York, wishes to know proper treatment for diarrhea and thickening of rectum.

Ans.— 1. Careful regulation of the diet. Avoid meats, condiments, and all indigestible and irritating foods. The diet should consist of granola, granut, toasted wheat flakes and biscuit, fruit juices, and nut creams. The bowels should be thoroughly cleansed with a warm enema daily. If the tissues about the rectum are thickened, this may be relieved by irrigation with hot water by means of a rectal irrigator of hard rubber.

Chronic Gastritis — Child's Diet. — Mrs. Y. J. S., Massachusetts: "1. What diet would you prescribe for a person very ill and weak with chronic gastritis? Present diet: gluten, malted milk, and infant-food gruels. What, if any, solid food should she eat? Would it be wise to use any nut foods or fruit juices? Has had the service of a trained nurse. Treatment: hot fomentations, massage, and wet girdle at night — seems to be ineffectual. Gains no strength, has had two relapses since October, and is now extremely thin and weak. 2. What diet is best for a two-year-old baby who has no strength or flesh? Has sixteen teeth, and weighs fourteen lbs."

Ans.— 1. See directions given Mrs. E. O. K., Nebraska. Nut creams and sweet fruit juices may be used. Cane sugar must be avoided. Local treatment alone will not effect a cure. The whole body must be built up. A sojourn for a few months in a well-equipped Sanitarium would be advisable. Such an institution is that at South Lancaster, Mass. Address Dr. C. C. Nicola for information.

2. Sanitas Infant Food, granose flakes, malt honey and malt-honey candy, and pan-peptogen. Address Sanitas Nut Food Company, Battle Creek, Mich., for further particulars.

Bronchitis. — Mrs. H. L., California: "Kindly give instructions for treating bronchitis."

Ans.— Cold mitten friction or towel rub every morning on rising. Wear every day a dry flannel chest wrapper covered with mackintosh. At night apply a wet towel next to the skin, or a roller chest pack covered with mackintosh and flannel. See Home Hand Book for directions.

Stoutness Hereditary. — Mrs. E. L. W., Texas: "1. Does it naturally follow that children of very stout parents become stout? 2. Is it not true that by proper diet and exercise one may keep his flesh in proportion to his height?"

Ans.— 1. No, but heredity has a strong influence in this particular.

2. Yes.

Bacon — Beverages — Nonmeat Diet — Babies' Diet. — H. P. F., Chicago: "1. Is bacon nutritious? 2. Which is best as a beverage, hot water, clear cold water, or cold water and grape juice (¼ to ½)? Can one drink too much grape juice? 3. Our family physician says I am crazy over my two-meal-a-day system, and will lose strength on a nonmeat diet. Is it so? 4. On what can I best feed our babies, aged thirty-two and seventeen months respectively?"

Ans.— 1. Its nutritive value is high, but it is very indigestible, and very poor food.

2. Hot water for hyperpepsia and gastric catarrh. Clear cold water in moderate quantity for hypopepsia. Grape juice is a food, and should not be taken freely between meals. It can easily be taken in too large quantities, especially when sweetened with grape sugar.

3. A nonflesh dietary is more capable of supporting life and health and strength than a flesh diet.

4. Address Sanitas Nut Food Company, Battle Creek, Mich., for suggestions respecting the diet of your children.

Bee Stings — Cubebs — Whole-wheat Flour. — G. B.: "1. In bee culture one is apt to receive from two to fifty stings in a day. Is this injurious to one's health? 2. Is the smoking of powdered cubebs good for catarrh? Is it unhealthful in other respects? 3. Is the Ralstrom whole-wheat flour a perfect health flour?"

1. The virus of the bee is a poison, and is certainly in no way beneficial.

2. No. They give temporary relief, but are in other respects unhealthful.

3. It is doubtless good flour, though perhaps it is too much to say that it is perfect. There is always room for improvement.

LITERARY NOTICES.

One of the most interesting and pathetic sketches of real life ever written, is that of "Happy Homes for Nobody's Children," by Thomas Barnardo in the **Missionary Review of the World** for March. Dr. Barnardo tells the story of how he began his great life work, and gives a history of the work up to the present time. The *Review* is filled this month with interesting discussions and items of every phase of mission work.

"The Launching of a University" is the story of Johns Hopkins University, and is told in that direct and humorous way so characteristic of the writer, ex-President Daniel V. Gilman. It is one of the many good things found in the March **Scribner's.** Some of the others are, "War and Economical Competition," by Brooks Adams; "The Heart of England," by John Corbin; and "In the Pennine Alps," by Mrs. Edith Wharton.

In an article in the March **Chautauquan,** Prof. Edwin Erle Sparks, of the Chicago University, deals in a very bright manner with "Formative Incidents in American Diplomacy." "Germany and Her Polish Subjects" is a careful analysis of Germany's attitude toward the Polish people, by an American journalist.

The March installment of "A Reading Journey in Central Europe" is by Lincoln Hulley, Professor of History at Bucknell University. The paper, which is fully illustrated, treats of "The Land of Luther." "The Critical Study in German Literature" is a discussson of Schiller's "Wilhelm Tell," by Robert Waller Deering, Professor of German Literature, Western Reserve University.

An excellent feature of the March issue of **Success,** is a touching description by Theodore Dreiser of a man who finds a way to give charity to hundreds of poor, homeless vagrants, yet he has no money himself. An interesting analysis of the life work of Guglielmo Marconi is written by Herbert Wallace, himself an authority on things scientific, and Richard Le Gallienne, the gifted translator of "The Rubáiyát," informs the world's workers that "Toil and Trial Pave the Way to Triumph."

One of the most unique stories published by that popular home magazine, **The Ladies' Home Journal,** is the opening number of their March issue. It is entitled "The Sexton Who Ruled New York," is written by Wm. Perrine, and is the history of one of New York's old and famous characters. A ridiculous story and rich treat is that of "My Balloon Hunt," by Frank R. Stockton, and a series of very instructive articles on birds and their personalities is begun by Neltz Blanchan. Helen Keller has been persuaded to write the wonderful story of her wonderful life, and the first installment begins in the April number of the *Journal.*

Miss Clara Morris's sketch of Henry Bergh, one of the oddest and best of philanthropists, is a delightful combination of reverent affection and droll anecdote. It is one of the many excellent articles in the March number of **Mc Clure's Magazine.** One of the most timely articles is Julian Ralph's brief review of Conan Doyle's "The War in South Africa," which has just been published. The book is a magnificent defense of his country's cause, by a man who is entitled to a hearing from both sides of the great controversy. Mr. Ralph extracts the pith of Dr. Doyle's argument, and presents it with perfect fairness, at the same time not concealing his own sympathy with the author's convictions. It should be added that Dr. Doyle will take not one penny of profit from the sales of his book, the price of which will simply cover the cost of publishing. The author regards the work as his duty to his country — it is the free gift of his patriotism.

"The Fifth Edition of the History of the Christian Religion," by Chas. B. Waite, A. M., is a quiet, judicial attempt to ascertain facts regarding the origin of the New Testament. The author is a well-known American scholar and lawyer, residing in Chicago, who has tried with all frankness and impartiality to present the results of several years of earnest work and thorough investigation of this subject. Judge Waite does not seek to destroy reverence for holy things, nor to uphold any special dogma, church, or creed; but has tried, and succeeded well in the trying, to present reliable truth and historical facts. The work is invaluable to those interested in church topics, and has received the indorsement of many eminent scholars both in this country and Europe.

The publishers are C. V. Waite & Co., 98 Loomis St., Chicago.

To those interested in hygiene, an article on "The Indian Beef Issue" by Wm. R. Draper, in the March **What-to-Eat,** will be particularly attractive. Mothers will be glad to avail themselves of the hints contained in "Delicious Cakes for Little Folks," while "A Culinary Coup D'État" is

a short story brimful of laughter. Felix Oswald, M. D., gives a Brazilian chapter in his International Food Studies, and Lylie O. Harris narrates the delightful unconventionalities of "A Sugar-House Party."

THE **Atlantic Monthly** for March contains several papers on vital topics now claiming public interest and attention. Frederick Atkinson, American superintendent of education, writes on "The Educational Problem of the Philippines," which paper is admirably supplemented by Charles A. Conant's discussion of "The Economic Future" of these same islands.

Henry C. Merwill takes up the cudgel in defense of the humane opposers of "Vivisection," denies the right of this painful process of investigation, and boldly asserts the inhumanity of professional physiologists. Geo. W. Cable opens this issue with the first installment of his new serial, "Bylow Hill," and there are other interesting and instructive articles on international and domestic affairs.

Apropos of these early spring days when everyone is eagerly listening to hear the first notes from the songsters from the South, an article on "The Birds of New England," in the March issue of the **New England Magazine,** will prove delightful and interesting reading. Lovers of old china will find "Old Blue Plates" a fascinating subject. There are the usual number of good stories and poems, and a fine sketch of Mrs. Julia Ward Howe. Mrs. Howe has given so freely to the world of her rich personality through her poems and lectures, that her name has become a household word. The cover is ornamented with a delightful picture by I. Marie Perrault, and is from a series published by Foster Bros., Boston.

March **Lippincott** contains several admirable papers on varied timely themes: One is a seasonable account of "The Isthmian Canal from the Beginning," by Charles Morris. Mrs. De Bubna tells engagingly about her girl friendship with the great prima donna, Adelina Patti. With it the wedding cards of Mme. Patti and Signor Nicolini are reproduced. Eben E. Rexford writes of "Backyard Gardens and Window Boxes," giving full and useful instructions. Mrs. Murray-Smith, daughter of the Dean of Westminster, contributes a delightful paper on "Two 'Grandes Dames' Buried in Westminster Abbey." These are Mrs. Gladstone and Lady Palmerston. John Ball Osborne, has an interesting article about "The Flemish Home of the Trappist Monks." These queer people always compel attention.

Good Housekeeping for March is a "college woman's number," and everybody's as well, being packed with bright, practical articles and paragraphs. It opens with an exposition by Miss Alice Katharine Fallows of the unique value of basket ball as a builder-up of vigorous women, illustrated from photographs. The story, with a college bearing is by a prime favorite among short story writers, Miss Josephine Dodge Daskam. Anne Warner writes fascinatingly of a home aquarium, with the aid of photographic illustrations. Front-door embroideries are discussed and illustrated. The Box Room is described and pictured, and there are five pages of crisp, helpful "discovery" paragraphs. The need of introducing home science in the colleges for women is ably considered by Prof. W. O. Atwater, the noted professor of chemistry; Mrs. Alice Peloubet Norton of the University of Chicago, and Professor Coman of Wellesley College. The "Housekeeper at Large" gives an illustrated interview with an Indian princess, and there are Chinese luncheon and chafing-dish recipes for college girls and others.

In the March issue of **The Forum,** Hon. Chas. Denby gives a forcible and interesting paper on the duties, perplexities, and responsibilities of a minister to China. Hon. Truxton Beale and Hon. R. Hutchison discuss respectively the "fors" and "againsts" of the Chinese Exclusion Bill; Prof. G. T. Ladd writes on "The True Functions of a Great University;" and Prof. A. Bruce gives some good pointers on "Employers' Liability in the United States." Other good articles are, "Ambassadors of Trade," "Fire and the Forest Reserves," and "Educational Value of World's Fairs."

The cover design of the **Woman's Home Companion** is one of those cleverly executed pictures which first attract attention, then compel closer study and observation, yet which needs little description. The *Journal* is becoming more and more popular every month. The March number is full of good things. Two pages of pretty things for home and street wear will be appreciated by the busy mother and housewife who is "fixing over" and replenishing the family wardrobe for spring. An illustrated article on the queer courtship and marriage customs of the Hindu and Parsee, a practical explanation of "wireless" telegraphy, a sketch of the first president of the Cuban republic, a description of Clara Barton on the field of Fredricksburg, and numerous short stories, hints on lace making, cooking, and household arts, help to make up an exceedingly interesting number.

PUBLISHERS' DEPARTMENT.

GOOD HEALTH

A JOURNAL OF HYGIENE

J. H. KELLOGG, M. D., Editor

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Single Copies, 10 cents

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GOOD HEALTH PUB. CO.

303 West Main Street

Battle Creek - - Michigan

THE BATTLE CREEK SANITARIUM FIRE.

THE Battle Creek Sanitarium burned to the ground, Tuesday, Feb. 18, 1902. Of the four hundred guests occupying the buildings, every one was rescued. One elderly gentleman became confused and wandered back into the building and was lost, the only fatality. Aside from one fractured limb and two sprained ankles, no other person was injured. This great saving of life was due to the fact that convenient fire escapes were accessible from every room, and the three hundred and fifty nurses were well drilled in the duties devolving upon them in such an emergency, and responded bravely to the demands of the occasion.

Although two large buildings were burned, the Sanitarium was not annihilated. Four large buildings remain. Two of these were occupied by nurses and other employees. These buildings were at once vacated, and fitted up for patients, who are now occupying them. Many patients have gone to our branches in different parts of the country. About two hundred remain, and are receiving efficient and satisfactory treatment. An elevator is being put into East Hall, formerly the nurses' dormitory, which will accommodate one hundred and fifty or more patients. New treatment rooms have been fitted up. Temporary provision is being made for the accommodation of one hundred and fifty to two hundred more patients. All who come will be cared for, and treatment will be carried forward as efficiently and with as satisfactory results, though not quite so conveniently as heretofore.

In the meantime, the erection of a new, fire-proof building will be pushed as rapidly as possible. We hope it will be completed early in July. The new

building will consist of brick, iron, and concrete, solid floors and partitions, and a model in every particular.

We have met with a great loss, but the Sanitarium still lives, and its work will be pushed forward more energetically than ever. Anything you can do to help us will be appreciated.

Yours for humanity,

J. H. KELLOGG.

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The publishers of GOOD HEALTH heartily indorse this laudable effort in aiding the Sanitarium in its efforts to recover the losses sustained by the recent fire. We trust that all our readers will aid in this effort.

THE SANITARY STILL.

PURE water is the most essential requisite for the health that enters into the system. Ninety per cent of our food is water. Impure food is shunned like poison, yet millions of citizens are drinking impure water, taking into their systems water from wells, cisterns, lakes, and rivers, which hold in solution, in thousands of cases, deadly microbes and germs of malignant diseases. Science has just begun to inform us that typhoid fever, dysentery, cholera, and other kindred diseases can be propagated only by drinking water infected with the discharges of some previous case. There are annually in the United States 32,000 deaths, and over 275,000 cases of typhoid fever directly attributable to the use of impure water.

Distilled water is the only water absolutely pure. No known filter will remove all the disease germs. They only strain out foreign matter, furnishing water pleasing to the eye but dangerous to drink. Death lurks in a germ-proof filter. How impor-

---

tant, then, that our water supply be unpolluted, pure, and wholesome!

Boiled water is not pure water, for the simple reason that the germs are only partly killed. Distilled water is condensed steam When water is heated to the boiling point, it passes off in steam free from all impurities This steam, condensed and collected, is the only water absolutely pure.

The purest water in nature is rain water, but it becomes contaminated by cleansing the atmosphere. The purest spring water has from six to fifty grains of mineral matter per gallon. Distilled water, free from all foreign matter, aërated with sterilized air, as furnished by the Sanitary Still, is pure and wholesome, a forerunner of long life and prosperity.

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NOTICE.

WE stand in need of about fifty copies of the April number of GOOD HEALTH of '99. Any subscriber sending us one of the above will receive in return for it, two copies of the recently issued Midwinter number for 1902. Please send in at once.

....THE....

Ladies' Guide

In Health and Disease

BY J. H. KELLOGG, M. D.

THIS work admirably meets a want that has long been recognized by intelligent women in all parts of the land. Having devoted many years to the study of the diseases to which the sex is peculiarly liable, as physician-in-chief of one of the largest health, medical, and surgical institutions in the United States, and in the treatment of thousands of women suffering from all forms of local disease, the author has brought to his work in the preparation of this volume a thorough education and a rich experience, which have enabled him to produce a volume eminently practical in character, and calculated to fill the place in the practical education of women for which it is intended. It tells mothers *just what they ought to know*, in language they can not fail to understand; and daughters who value their health, and the happiness which follows health, can not afford NOT to know what this book teaches them.

This book is divided into seven parts, or sections. It graphically describes the great mystery of life,—the anatomy and physiology of reproduction. Four of the sections bear respectively the following headings: "*The Little Girl*," "*The Young Lady*," "*The Wife*," and "*The Mother*." A most thorough discussion is given concerning the special dangers incident to puberty in girls, the physical and mental training of young ladies, the evils of improper dress and how to dress healthfully, the education of young ladies, personal beauty, courtship and marriage; the duties, rights, and privileges of the wife, the dangers of health incident to the matrimonial state, the prevention of conception, how to predict and regulate the sex of offspring, criminal abortion, and the *special means* which wives may adopt for the preservation of their health. Due consideration is given to the perils of motherhood and how they may be avoided, including instructions by following which child-bearing may be made painless in most cases, and greatly mitigated in all. The management of pregnancy is also fully treated, and a large amount of new and invaluable instruction given on this important subject, which makes the "Guide" a very valuable book for midwives, nurses, and physicians. One section of the book is devoted to the diseases of women, together with their proper treatment, the latter subject being treated differently than in any other work extant, and embodying the various methods in use by the author, and by the best specialists in this and foreign countries, which bring about such remarkable results when intelligently employed. The directions given are so simple, and the means to be employed in treatment so readily accessible, that the treatment can be carried on successfully in most cases at the home of the patient without the assistance of a physician, thus saving many a doctor's bill. The concluding section of the work is an Appendix, where is found rational home treatment for diseases of childhood, such as croup, diphtheria, whooping cough, convulsions, measles, scarlet fever, etc., etc.; also full instructions for baths of various kinds, Swedish movements, postural treatment, electricity, massage, diet for invalids, many invaluable recipes, medicinal recipes, and *prescriptions* for the various diseases treated in the work. A Glossary and Alphabetical Index follow the Appendix.

Girlhood
Maidenhood
Wifehood
Motherhood

The work contains ***672 octavo pages,*** and is ***illustrated by means of thirty-five chromo-lithographic plates, cuts, and colored plates.*** For the purpose of removing a possible objection which might be raised, a few of the plates are printed on a sheet by themselves, are carefully concealed in a little pocket in the cover of the book, and may be removed at pleasure.

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Corrected Nov. 3, 1901.

EAST	8 *Night Express	12 †Detr'it Accom.	6 †Mail & Express	10 *N.Y & Bos. Sp.	14 *East'n Express	4 *N.Y. St. Sp.	36 *Att'tic Express
Chicago	pm 9.35		am 6.45	am 10.30	pm 3.00	pm 5.30	pm 11.30
Michigan City	11.25		8.43	pm 12.08	4.39	7.00	am 1.20
Niles	am 12.40		10.15	1.00	5.35	7.55	2.30
Kalamazoo	2.10	am 7.30	pm 12.10	2.08	6.45	9.03	4.10
Battle Creek	3.00	8.10	1.00	2.42	7.17	9.37	5.00
Marshall	3.32	8.38	1.30	3.09	7.43		5.30
Albion	3.55	9.06	1.50	3.30	8.03		5.52
Jackson	4.50	10.05	2.35	4.05	8.40	10.50	6.40
Ann Arbor	5.55	11.10	3.47	4.58	9.30	11.40	7.45
Detroit	7.15	pm 12.25	5.30	6.00	10.00	am 12.40	9.15
Falls View							pm 5.09
Suspension Bridge							5.32
Niagara Falls							5.40
Buffalo				am 12.20	am 7.00	7.50	6.30
Rochester				3.13	9.00	10.00	8.40
Syracuse				5.15	10.55	pm 12.15	10.45
Albany				9.05	pm 2.30	4.50	am 2.50
New York				pm 1.30	6.00	8.45	7.00
Springfield				12.16	6.10	8.32	6.05
Boston				3.00	9.00	11.30	8.46

WEST	7 *Night Express	17-21 *NY Bo. & Ch.Sp	5 †Mail & Express	3 *Fast Mail.	23 *W'st'n Express	13 † Kal. Ac'n.	37 *Pacific Express
Boston		pm 2.00			pm 4.15		pm 6.00
New York		4.00		am 8.45	6.00		am 3.15
Syracuse		11.30			am 2.00		10.20
Rochester		am 1.20			4.05		pm 12.10
Buffalo		3.20		pm 6.25	5.20		3.50
Niagara Falls					6.02		4.32
Suspension Bridge							
Falls View					6.31	pm	5.07
Detroit	pm 8.20	8.25	am 7.15	am 12.30	pm 12.40	4.35	11.15
Ann Arbor	9.38	9.23	8.40	1.20	1.38	5.45	am 12.20
Jackson	11.20	10.20	11.05	2.20	2.40	7.25	1.35
Battle Creek	am 12.40	11.34	pm 12.25	3.30	3.50	9.00	3.00
Kalamazoo	1.40	pm 12.10	1.20	4.05	4.28	10.00	3.40
Niles	3.25	1.22	3.23	5.28	6.05		5.08
Michigan City	4.47	2.20	4.45	6.22	7.05		6.06
Chicago	6.55	4.00	6.40	7.55	8.55		7.50

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Chicago	AM 11.05	PM 3.02	PM 8.15		AM 7.32	
Valparaiso	PM 12.49	4.53	10.25		10.05	
South Bend	2.08	6.15	11.52		11.35	AM 7.10
Battle Creek	4.14	8.15	AM 2.00	AM 7.00	PM A2.00 L3.45	PM 5.00
Lansing	5.20	9.28	3.28	8.30	5.25	
Durand	6.00	10.15	4.25	9.30	6.30	
Saginaw	8.10			11.05	8.10	
Bay City	8.45			11.40	8.45	
Detroit	8.00		7.30	11.50	9.20	
Flint		10.40	4.54	10.21	7.28	
Port Huron	9.40	AM 12.30	7.00	PM 12.20	9.30	
London	AM 12.32	3.27	10.10			
Hamilton	2.10	5.24	PM 12.25			
Suspension Bridge	3.40	7.05	1.55	8.50	AM 3.40	
Buffalo		8.20	3.05	10.00	6.15	
Philadelphia	PM 3.47	PM 7.20	AM 6.55	AM 8.56	PM 3.47	
New York	4.33	8.23	8.23	9.33	4.33	
Toronto		AM 7.40	PM 1.30	PM 7.40		
Montreal		PM 7.00		AM 7.30		
Boston		AM 8.15		PM 7.05		
Portland		8.00		6.30		

WEST	3	5	7	9	11	75
Portland	AM 8.15	PM 6.00	AM 10.30			
Boston	11.30	7.30				
Montreal	PM 10.30	AM 9.00				
Toronto	AM 7.40	PM 1.00	PM 5.25		AM 8.30	
New York	PM 6.10	8.00	AM 10.00			
Philadelphia	7.00	8.45				
Buffalo	AM 6.15	AM 8.00	PM 9.30			
Suspension Bridge	7.00	PM 2.00	11.15			
Hamilton	8.45					
London	11.05					
Port Huron	M 12.00	9.00	AM 3.20	AM 6.50	PM 3.50	
Flint	PM 1.35	11.07	4.54	8.45	5.54	
Bay City				7.25	4.00	
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