

GOOD HEALTH



JUNE, 1902.

- Sleep Producers.
The Struggle for Existence.
The Schoolgirl's Summer Vacation.
Illustrated.
Sanitation for United States Troops
in Foreign Lands. *Illustrated.*
Nerve Exhaustion.
At Commencement Time. *Illustrated.*
A Composite Creation.
Rice as a Food in India.
Strawberries. *Illustrated.*
Beefsteak Going Higher.

MENS SANA IN CORPORE SANO.



COPYRIGHT 1897.

"YOU CANNOT BEGIN TOO EARLY."

Systematic Shampooing
WITH

Packer's Tar Soap

is recommended by the highest authorities for
preserving healthy conditions of the hair and skin

Our Leaflet, "The Value of Systematic Shampooing," mailed free on application to
THE PACKER MFG. CO. (Suite S7M), 81 Fulton St., NEW YORK.





Painted by R. Atkinson Fox.

KNEE-DEEP IN JUNE.

Taber-Preng Art Co.

GOOD HEALTH

A Journal of Hygiene

VOL. XXXVII

JUNE, 1902

NO. 6.

SLEEP PRODUCERS.

BY J. H. KELLOGG, M. L.

EXERCISE.

THERE are many chronic invalids and others who cannot sleep. Usually the chief reason for this condition is, that they do not work. The Bible says, "He that will not work, shall not eat." And Nature says, "He that does not work, shall not sleep." Work is just as necessary for sleep as it is for an appetite. A person must earn an appetite if he has one. So, if one is to enjoy sound, refreshing sleep, he must earn it. The Bible says that the sleep of the laboring man is sweet. The chronic invalid is sedentary; he has no vigor for exercise. Because he does not work or exercise, there are certain poisons which are not eliminated. These accumulate in his body, and irritate the nerve cells, thus keeping him awake.

A number of years ago Professor Bouchard found by experimenting upon rabbits that there was a marked difference in the urinary secretions generated during sleep and those generated during activity in the open air. It was found that when a rabbit was injected with the urinary secretion of the day, he would fall asleep, like an animal that had been put under the influence of opium. When the same amount of the secretions of the night were injected into the veins of the rabbit, it produced a spasm.

The exercises which a man takes

in the open air, produce substances adapted to make him sleep. When a boy comes home from coasting, and sits down by the warm fire, it is not more than five minutes before he is nodding. And when he goes to sleep after such exercise, his sleep is refreshing and sweet, like that of an infant. This is because of the generation within the body, of substances which have power to put an animal to sleep. This is the reason the sleep of the laboring man is sweet. It is the reason exercise is a means which enables us to sleep.

On the other hand, while a man is sleeping, by degrees a substance accumulates which produces convulsions, and after eight or nine hours' sleep, and sometimes in a shorter time, there is formed in the body a sufficient amount of these substances to produce a little explosion in the muscles every now and then. These cause the limbs to twitch; the man becomes restless, rolls over in his sleep, and finally awakens, as the result of the stimulation of these poisonous substances.

Take for example the chronic invalid; he does not work because he has not strength enough. The sleep-producing substances naturally formed by exercise are lacking. So, when he goes to bed, he has the "fidgets,"—he keeps twisting and turning about; because he has no sleep-producing substances in his body. Instead, his body is full of the poisons which accumulate dur-

ing idleness, and the influence of these is irritating and exciting to the nerves. The man is uneasy, his brain is excited, he keeps thinking, he cannot stop thinking. His legs twitch and jerk, he cannot find a comfortable position; he lies first on one side and then on the other; he cannot be quiet long enough to go to sleep.

What is to be done for sleeplessness? In the first place, we must recognize these physiological facts in order to understand physiological treatment. We must not simply inquire "What will put a man to sleep?" There are many things that will do this. Bromide of potash, opium, alcohol, chloroform, or ether will put men to sleep; but the sleep they produce is not of the most restful sort, and one must always reckon with the after results.

What we want to do for the man who cannot sleep, is to put him in a condition favorable to sleep,—a condition in which he can sleep physiologically and naturally; and the way to accomplish this is to remove the cause of the sleeplessness. Here is a man who has broken his leg; he is accustomed to sound sleep, because he has worked hard and has earned the right to sleep. But now he cannot sleep because he cannot exercise. To produce natural sleep we must give him exercise. Some simple passive movements, such as bending the limbs, serve the purpose well, when greater activity is impossible.

There is really no excuse for any one being sedentary. A man said to me not long ago, "I cannot take exercise for any length of time; I am a student, and I have no time for exercise." But the man who is sitting at his desk can take exercise, if he will, without interfering with work. By simply extending the arm and holding it perfectly steady, the muscles are given

some work to do, and after about two minutes the arm will be so tired that it cannot stay in that position any longer. Drop both arms at the sides, and energize every muscle, straighten out all the fingers, make them stiff, and hold them so; or, bend one leg up close to the body, make it rigid, and hold it in that position, and you will be astonished to see how tired you will become.

One can put all his energy into one set of muscles in trying to set the limb in motion, and all his energy into another set of muscles in trying to hold it still. This is just as hard work as it is to lift a heavy weight. One can make his muscles work just as hard in this kind of exercise as in ordinary work, by putting one set of muscles in opposition to another set, as the flexors in opposition to the extensors of the arm. Set the muscles absolutely rigid, hold them so, and in five minutes one will be perspiring profusely. A large number of movements of the head, limbs, and trunk can be made by the bedridden invalid, by which the benefits of good, hard exercise may be secured. All this work, the sedentary invalid can do for himself.

If one is able, he should work two or three hours before going to bed. Ericsson, the great inventor, made it a habit of his life to go out two hours before he went to bed, no matter whether the evening was pleasant or stormy. This practice kept his brain active, because it secured refreshing sleep. William Cullen Bryant, the poet, the literary man, and the editor, for forty years before his death, took systematic and vigorous exercise every day of his life. He took exercise the first thing on arising in the morning, and the last thing before going to bed. He walked from eight to ten miles daily, never using street cars, coaches, or elevators, so as to get the

benefits and blessings of work. Many persons do not have the resolution to do this. Often the business or professional man will take a carriage or hack to carry him from his business office to his residence (perhaps only four or five blocks) and from his residence to his

office again, simply to let the world know that he does not have to walk. That man has robbed himself of one of God's best gifts,—the blessing of sound sleep,—he has not earned the right to sleep soundly and healthfully, and he cannot do so.

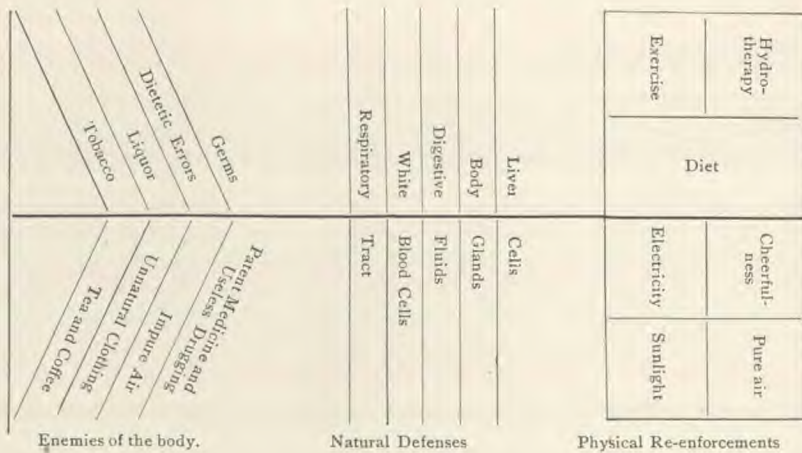
THE STRUGGLE FOR EXISTENCE.

BY DAVID PAULSON, M. D.

THE human body has its enemies and its natural defenses. There are also methods of assisting it from without in times of serious danger. In the truest sense, life, from infancy to old

nestly study how to diminish this appalling, but to a great extent useless, death rate.

In the accompanying diagram let life be represented by a heavy line, and let



age, is a continual struggle for existence. This is not a fanciful statement, for this conflict is so fierce and real that out of every hundred infants that are born, at the end of the first month ten have died because they were unable to cope with the difficulties they were called upon to meet. At the end of a year twenty-six have given up the struggle, and at the end of five years only fifty-nine of the hundred are alive. This pathetic fact alone is certainly sufficient reason why we should ear-

the diagonal lines represent some of the greatest obstacles to health and longevity. The vertical lines may represent some of the natural defenses of the body, and the squares represent some of the best means of re-enforcing these normal defenses.

Disease-producing germs are constantly seeking to invade our bodies, and are therefore one of our most dreaded foes. The pneumonia and consumptive germs are alone responsible for nearly one half of the present mor-

tality. Without being armed with any of the modern implements of warfare, these insignificant enemies of life and health go on, year after year, mowing down more stalwart men than all the Gatling guns in existence have ever destroyed, because man, although he was originally given dominion over every living thing, has now allowed himself to fall into such a state of physical decay that he frequently becomes an easy prey to the most microscopic forms of life that may choose to attack him.

An unnatural and unsuitable dietary is another enemy of the body, and its insidious influence is responsible for far more misery than is generally supposed; for digestive disturbances pave the way for a host of other physical maladies.

The stimulant delusion creates a flourishing business for hospitals, asylums, undertakers, and the graveyard. In this country it is estimated that there are 1,800,000 persons who directly or indirectly derive their support from the manufacture and sale of this terrible enemy of mankind.

Tobacco is really a twin evil of the liquor traffic. There is one factory which alone produces from seven to nine million cigars daily. According to the *Pioneer Press* there were used during 1901 nearly six billion cigars, seven hundred and fifty million little cigars, and two billion five hundred million cigarettes. At an average cost of seven cents apiece for cigars, two cents apiece for little cigars, and one-half cent apiece for cigarettes, the amount of money that went up in smoke last year amounted to \$441,744,184. This suggests to us something of the immensity of this terrible curse.

To hush the protests of outraged nerves there is required each year two million dollars' worth of nostrums, quack remedies, and patent medicines,

nearly all of which paralyze the useful activities of the body to just the same extent that they deaden the sensibility of the nerves.

Pure air, although of such priceless value, is the cheapest commodity in the market; consequently it is the least appreciated, and thousands, especially infants, die for no other reason than that they have been deprived of a sufficient amount of this, the greatest necessity for human existence.

When the stomach and kidneys or other organs are forced away from their normal positions by tight or heavy clothing, their delicate and sensitive nerves are stretched almost beyond endurance, and they protest vehemently by producing the most aggravating pains and by refusing to send out the normal impulses that are necessary to produce the proper digestive juices. The proper rhythm of the heart, intestines, and other organs becomes disturbed.

Clothing should fit the body, but fashion has decreed that the body must by some means be compelled to fit the clothes, regardless of all present and future suffering. The majority of women slavishly bow their heads to their cruel master, and ultimately Nature ends their miserable existence by bringing about a premature death, and their children suffer from the results of their wrong doing.

Our Natural Defenses

Fortunately the body is naturally endowed with the most effective defenses against the inroads of disease. The liver is one of the most useful organs that we have in times of either bodily war or peace. If it were not for the liver, undoubtedly the average Thanksgiving or Christmas dinners would cause thousands of funerals, where they are now responsible for only one. It

is certain that it is the liver with its well-known ability to destroy nicotine, that enables the average tobacco user to live as long as he does while indulging in the use of this poisonous weed. It inspects almost all the digestive products, sorting and destroying or otherwise disposing of those that are not useful to Nature in making good blood, strong muscles, steady nerves, and a beautiful skin.

The thyroid gland produces a secretion that wonderfully assists the body in its struggle against disease, for as soon as it is diseased, as in goiter, serious symptoms quickly manifest themselves. It would certainly be an idiotic thing for a besieged city to deliberately weaken and undermine its natural defenses to such an extent as to encourage their total destruction. But that is precisely what every individual does who deliberately violates and tramples underfoot any part of physical law.

The digestive tract not only produces fluids that will transform food substances so they can be built into living tissues, but all these fluids possess germ-destroying properties, and as long as they are up to par value, the man cannot contract typhoid fever or other germ diseases.

The white blood cells are valiant defenders of the body, for each one is willing and eager to lay down its life for the sake of preserving the life of the human being. Pus is largely composed of dead white cells that have sacrificed their lives in defending the body against the encroachments of some wily microbe. In some great emergency, as in abscess of the lung, Nature sometimes actually creates within twenty-four hours, according to Dr. Rogers, the eminent French scientist, more white blood cells than would ordinarily be produced in several weeks.

The lining membrane of the respiratory apparatus, from the nose to the farthest nook and corner of the lungs, also possesses the power of capturing and destroying germs, just as fly paper has the ability of capturing and destroying flies.

Physical Reinforcements

One of the most sensible things a person can do, whether he is sick or well, is to re-enforce his strength as fast as possible, by availing himself of all the assistance that he can secure by the enthusiastic and intelligent employment of the various physiological agencies that are within his reach.

The most important trio of natural remedies is dietetics, hydrotherapy, and proper exercise. Other valuable agencies are pure air, light in various forms, electricity, and cheerfulness.

Most people could very materially increase their physical defenses by securing the reaction from a daily application of cold in some form. Careful scientific observations have shown that such a treatment increases almost immediately the number of white blood cells in the general circulation, thereby increasing the ability of the body to capture germs as well as to repair diseased structures. A general who could so easily add to the fighting strength of his army, would certainly be regarded as a lunatic if he did not avail himself of the opportunity. Yet there are thousands of semi-invalids who do not concern themselves in the least as to how they may improve their weakened and waning life forces. There are multitudes of those who only need to adopt a wholesome and rational dietary to be speedily emancipated from their present state of invalidism. Others would in an amazingly short time be able to shake off the moss of disease if they

would become sufficiently aroused to cease their sedentary life, and begin to engage in active, stirring, physical exercise. Of course, at first there would be some rebellion on the part of the unused joints and long-time-neglected muscles.

The same sunlight that can place a halo of glory on all nature, can put color into the pale cheeks that have been so carefully shut away from its health- and

life-giving beams.

A sour, morose, and despondent state of mind stamps, to a certain extent, the same mold upon the activities of every bodily function; while cheerfulness, hopefulness, and good nature impart a similar tone to the work of every organ in the body, thus emphasizing the inspired truth that a "merry heart doeth good like a medicine."

THE SCHOOLGIRL'S SUMMER VACATION.

BY CECILY BUSCALL.



WITH the summer months come thoughts of vacation and rest to most of us. The

schoolgirl has numberless plans and dreams of what she will do and accomplish during this time. Whatever her possibilities and limitations in the way of spending a vacation are, a few suggestions on how to obtain the greatest benefit may be advantageous physically, and no doubt mentally also; for the general health and vitality affects the mind and its capabilities to a great extent. The best results obtained from a vacation are through reaction and rest, and a variety of occupations, mental and physical. The girl of frail physique has a chance to build up her health and strength, the results of which will be very evident in her fall and winter school work, for if the health is good, the brain is nourished by pure blood, and is in far better working condition; besides, however eager and advanced in her studies a girl may be, what does it avail if she breaks down after, or perhaps before, passing some

severe test, and is left a semi-invalid for years to come, a condition which is too common among all classes to-day?

Statistics which were most carefully taken lately in the United States, show that the larger and healthier children are the more intellectual. Good health invariably counts; the brain refuses to work at its best when the physique is in a weakened condition. Whether situated in city, suburb, or country, with many or few athletic advantages, there are many means for improving the health and gaining strength within the reach of all. Summer is the time for living out of doors as much as possible, preferably exercising outdoors, except in the middle of the day, unless it is possible to keep in the shade. If the fear of freckles or tan keeps you indoors, banish it with the thought that with their wearing away the skin is left fairer and in better condition than before. It is safe to say that health culture is always beauty culture, for the truest and most lasting beauty is that which comes with a sound digestion and a good circulation.

Many and varied are the forms of athletics which may be taken up as a

means to health, strength, and pleasure. They may be adopted according to opportunity and taste, although it is as well to remember that what one likes best at first is not always what is most needed.

One excellent plan is to form walking clubs, with congenial companions, and for an object. Hunt the woods for flowers, and keep your knowledge of botany from becoming rusty; or take your camera, and photograph nature. If living in the city, it is nearly always possible to reach the suburbs by car, and start the jaunt from some point outside the city.

Walking as an exercise is won-

derfully conducive to health, increasing the power of endurance, improving the circulation, and consequently the complexion, and developing the lower part of the body. Combined with full, deep breathing it forms one of the most effective means of improving the powers of endurance, improving the health and gaining strength. Inhale deep breaths when walking, feel an expansion of the waist when inhaling. Completely fill the lungs with pure



WALKING IS CONDUCTIVE TO HEALTH.

air, then exhale as completely. There should be no raising of the shoulders in breathing, the expansion of the body starting at the waist, sides, and back.

Deep breathing is a most important factor in gaining strength, as there can be no true endurance or excellence attained in any athletics without first acquiring this as a habit.

Cycling is another excellent form of exercise, taking one into the fresh air. If taken in moderation, and not used

beyond one's limitations, it is a health-giving recreation. The beginner in this should keep to the short-distance rides and go at a moderate speed, gradually increasing both speed and distance as strength and endurance permits. Hill climbing should be avoided at first, and later only taken in moderation, as it taxes the heart considerably, and finds out any weakness in breathing. The muscular development from cycling is restricted principally to the lower limbs. In any exercise which tends to develop one

part of the body, it is as well to take up another which tends to develop the rest of the organism. For the best results one should not confine herself to any one sort of exercising, unless it gives an all-round development.

Golf as an exercise is excellent, having the effects of walking, with the added advantage of the arm and trunk action. One of its greatest drawbacks is the various apparatus and space needed for the game.

As a usual thing schoolgirls especially need some exercise that will develop the chest and arms, flat, thin chests being very much in evidence.

Rowing is an excellent means of developing the chest, arms, and back. If deep breathing is practiced as an exercise until acquired as a habit, it will aid greatly in the development of the chest, for it is not always the muscular development that is needed. The lungs have the chief part to act in changing the form and size of the chest.

Singers with little exercise but breathing exercises and singing, usually have large, well-formed chests, developed through this practice.



GYMNASIUM PRACTICE SHOULD BE KEPT UP.

If any exercise, such as canoeing, tennis, or rowing, is taken up, it is important not to overdo one side of the body to the detriment of the other; it is comparatively easy to change the shape of the body during the growing period, and a continual use of one side will rapidly produce a high shoulder or hip, and thus start a curvature of the spine, which may end in deformity.

Counteract these sports by some exercise that will bring into play the other side of the body, and equalize the development, and in everything as far as possible use both sides of the body equally.

If the gymnasium has been attended during the winter, keep up the practice of the exercises for a few minutes each day; this will tend to keep the body in good form and erect poise, as the effect of scientific exercise must of a necessity be more exact than any game.

The matter of clothing is an important item in exercising, an appropriate dress adding to the pleasure as well as the benefits derived.

For any summer exercise the dress should be light, and should allow perfect freedom of movement. Corsets should never be worn by the schoolgirl, and not even a waist stiffened with whalebone or steel, the waist and back muscles when allowed sufficient activity,



READY FOR THE GYMNASIUM.

being fully equal to supporting the body. If this were more fully carried out, there would be fewer backaches and other ills that are the usual thing with the majority of schoolgirls.

Swimming forms an ideal summer exercise, besides being a very useful accomplishment that should be acquired by all who have the possibility of learning within their reach. The force of the water offers a sufficient resistance to the

muscles to cause rapid development of chest, arms, back, and legs; in short, increases the respiratory power, and strengthens the back. It is an exercise for all-round development.

It is impossible to get overheated in swimming, the temperature of the water keeping the body cool. The muscles of the arm and shoulders are usually the first to tire, but these can be developed by gymnastic exercises at home or in the gymnasium.

The general hygiene of the body with regard to food and baths enters largely into determining the good health and strength of the schoolgirl.

Moderation and care in regard to these, combined with rightly adjusted exercise, will work wonders with the delicately constituted physique, and make it possible to develop the individual to the highest point of her mental and physical activity.

SANITATION FOR UNITED STATES TROOPS IN FOREIGN LANDS.

Some Observations in Japan, Cuba, and the Philippines.

BY AN EX-SOLDIER.

THE sending of large numbers of troops to foreign countries during the recent wars with the Spanish and the Filipinos, has opened a new line of work in the field of sanitary engineering. In camps, on the march, and, in fact, in much of the service of the soldier in foreign sections, the excreta, the kitchen refuse, and the like are received several times a day in trenches, where they are covered with dry sand or burned. In Japan, I found that the American troops were freely provided with latrines, as are also the soldiers in the Philippines. These latrines are often screened with canvas or with bamboo work, which affords a good protection.

There are orders issued for the boiling of all water in nearly every American camp in foreign lands, and these orders, as a rule, are well carried out. The boiling destroys many of the disease germs which the water may contain. Then follows straining and cooling, and the water is ready for use.

In all the foreign lands, there are two sets of hospitals, one for the American troops and the other for the native. This is essential in countries like the Philippines, where often there are a number of native wounded to care for. These hospitals are frequently inspected, and, as a rule, are very clean indeed. The dry-earth system is often used, and every precaution is taken to prevent the spreading of typhoid or other diseases. In the

Philippines, as soon as a regiment lands for service, it is marched into a camp ready prepared for it at the Luneta in Manila, where the command awaits orders to the interior or other point. One may see watering carts, carts for collecting refuse, and, in fact, every department of sanitation in operation for the maintaining of good health among the troops. There is no more sleeping on the ground. If canvas cots are not available, native bamboo cots are secured.

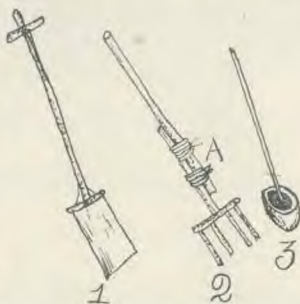
Some Native Tools

Wherever the Americans have established quarters, the progress in the direction of proper sanitation for barracks and quarters for soldiers has been most marked.

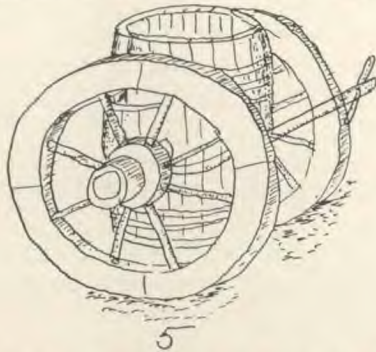
The work of the Japanese in this direction has been retarded through lack of proper modern tools. Some of the types of working utensils used are here shown. The shovel is a piece of wood fitted with a wooden handle. This handle is usually very poorly put on, and breaks off readily. The form of rake used in removing the earth is shown in Figure 2. The handle is made in two pieces, tied together with cordage. The pegs for the teeth of the rake are of hard wood. Figure 3 represents a scoop made of a coconut with a wooden handle. The loosened earth is scooped upward with this crude tool.

Sinks

In the ordinary military camp in the foreign countries, now occupied by



United States troops, a very simple type of sink is used. As soon as the command arrives at a station, details begin to excavate trenches about four feet deep, five or more feet long, and about two feet wide. As fast as necessary, fresh earth is thrown into it, thus offering practically a new trench every day, for



about ten days, at the end of which time the hole is well filled, and a new trench dug. For field service this type of trench is very effective.

However, in many sections of the Philippines, Cuba, the Hawaiian Islands, Japan, Ladrone Islands, and other places where troops are more permanently stationed, the military authorities have already established permanent barracks and quarters for troops, where all of the sanitary arrangements are first class. The sinks for the military camps in the vicinity of Manila, Hoilo, and Honolulu, are all of suitable and effective design.

The Refuse Carted Off

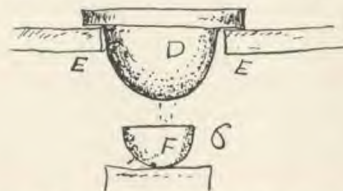
In Cuba, the Philippines, and Sandwich Islands, as well as in portions of Japan, the refuse from the military camps is carted off and burned, instead of buried. One of the native types of carts used for this work in the Philippine sections is shown in Figure 5. It consists of two heavy

wooden wheels, fitted with an axle arranged to carry the barrel in the manner shown. The cart is hauled to the rear, the catch-boxes dumped into the barrel, and then hauled off for burial or burning. In some cases, the refuse is taken to sea in scows, and dumped.

In Figure 6 is shown the mode of purifying the drinking water, at the same time cooling it. The stone jar *d* rests on the projections *e e*, and the boiled water is placed therein. The water oozes through the stone to the vessel *f*. The process removes impurities, and also cools the water by evaporation.

Native Mode of Holding Water

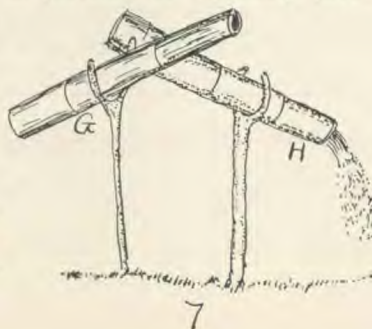
Figure 7 represents the native method of retaining water for a supply in a camp. The bamboo tubes are cut in the bamboo forests, each tube being about four inches in diameter and about ten feet long. The partitions of natural growth in the tube are punched out, except the bottom one. The tube is then



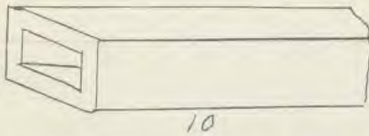
filled with water at the river or well, brought to the camp by a native, and placed in the crotch of a stick cut especially for the purpose, as shown at *g*. In order to secure water, the tube is tipped downward like *h*, and a sufficient quantity permitted to run out.

General Sanitation

The fact that American troops have entered many foreign lands in recent years, and established systems of sanitation as a safeguard to the health of the soldiers,



has brought about many improvements in the sanitary systems of the countries thus visited. The natives in nearly all of the islands mentioned were accustomed to permit sewage to drain into wells of drinking water. In places, the military authorities reduced the native death rate forty per cent by compelling them to put in new wells, drain the streets, and adopt proper sanitary precautions in the



town. The native well is a very simple and unsanitary affair. A narrow hole is cut, and the sides boarded up, box fashion. Most of the new wells are properly constructed. A full-sized hole is made, and the natives are shown how to stone up the walls.

Concerning Pipes

One of the problems with which the military officials have to contend in the adoption of proper sanitation in the military camps in foreign lands is the lack

of proper stocks of pipes and pipe connections. One sees all sorts of patterns of wood, stone, and clay pipes in use where metal piping ought to be employed.

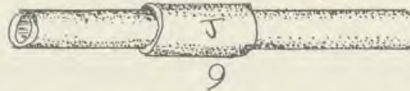
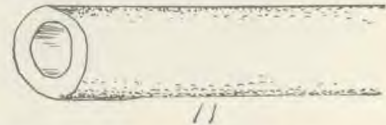
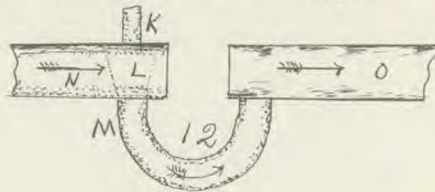


Figure 9 shows a form of wood pipe made in the Ladrone Islands, of solid tree stock, bored out, and the pieces joined with a sleeve like *j*, which is also wood. In Figure 10 is a square wooden pattern of Honolulu manufacture, while the kind shown in Figure 11 is of Japanese description, being shaped from a stony cement, molded to the form re-



quired, and baked. The Philippine design of pipe and joint is shown in Figure 12. The main pipe line is *l* and *o*, and the direction of the flow is with the arrow *n*. The passage from the two sections, one from the other, is by means of a looped piece *m*, which is dropped in and joined as shown.

The stopper *k* is a plug, used for removing to get at the interior.



CONTENT.

Do not worry, heart of mine:
 There is rain as well as shine
 In this strange old world of ours.
 There are tears as well as smiles,
 But the sunny afterwhiles
 Shall be sweeter for the showers.
 There are crosses, there are bars,
 But the nights are crowned with stars
 And the days are gemmed with flowers.
 — J. A. Edgerton, in *Everywhere*.

NERVE EXHAUSTION.

BY W. H. RILEY, M. D.

NERVE exhaustion is commonly known among medical men as neurasthenia. This name comes from two Greek words which literally mean a lack of nerve force. This disease was first described about thirty years ago by a New York doctor, and does not seem to be as prevalent in Europe as in America; in fact, it is often spoken of as an American disease.

It is more common in the northern and western than in the southern and eastern parts of the United States, and is perhaps most often met with in the elevated regions of Colorado, Wyoming, Montana, and other mountainous States. It is not, however, confined to any particular region or age, although it is met with more often in cities than in the country, and between eighteen and thirty than at any other period of life.

This disease usually selects as its victims, people of highly organized nervous systems — people who are so sensitive that they respond to every slight stimulation. Lawyers, physicians, teachers, and other mental workers form a large part of this class.

Fewer, I think, of what we might call typical cases, are found among women than among men; while typical forms attended by hysteria and other complications are most often seen in women.

Heredity is a very important factor in the production of this disease. Among the other causes, and what we may call the more active causes, are those which come under the head of infectious diseases, such as typhoid fever and influenza. I have seen many cases of men and women who have had influenza, or la grippe, and after that

they passed into a weak, nervous condition which may linger long after the acute trouble has passed away. Typhoid fever, measles, and nearly all other acute infectious diseases may also cause this trouble.

The germs of these diseases enter the body and get a foothold there, when the body is in a weakened condition, and then they produce poisons which are absorbed into the blood, and carried to the brain and to the nerves and spinal cord. It is these poisons which really produce fevers; after that they produce an irritation of the nerves, and cause a disturbance of the nutrition of the nerves and consequent nerve weakness.

Then there are constitutional changes constantly going on in our bodies, which produce certain chemical poisons, unaided by germs.

These, too, are often absorbed into the blood, and carried to the brain, nerves, and spinal cord; and this frequently causes nervous irritation and weakness. We see this particularly in people with rheumatic tendencies, who have slight pains in different parts of the body, due to a lack of elimination of these poisons which are produced in the tissues. When this is kept up for a long time, the nutrition of the nerves and nerve cells is interfered with, and this may be a very potent factor in causing nerve weakness. Then again, this condition is often caused by poisons taken into the body, such as alcohol, tea, coffee, and tobacco, and the excessive use of meat. So, under the head of "poisons," we can say that we have those produced by germs, those

produced in our own bodies, and those taken into our bodies,—all these are causes of nerve exhaustion and nerve weakness.

Many people do not appreciate the influence of what we call "chronic intoxication,"—a slow poisoning. Those who use tea or coffee in moderation, and use it continuously, are keeping up a continual poisoning of the tissues; they take into the body a little poison to-day, a little to-morrow, and a little the next day, and so on. These poisons irritate the nerves, disturb their nutrition, and thus produce nerve weakness. I remember, some time ago, while I was in New York studying in the Bellevue Hospital, there was a large number of children who came to the clinic for treatment, and frequently these children showed various symptoms of nerve weakness and nerve exhaustion. One day I was very much impressed with a couple of them who came to the clinic with a fine rhythmical tremor of the hands and feet,—very much like a man under the influence of alcohol,—a vibration of about ten or twelve times a second. In addition to that, they were excessively nervous. The attending physician inquired into the history of these cases, and found that they had been drinking coffee excessively, and the only thing that he did was simply to tell them to discontinue the use of coffee, and to come to see him every day, which they did. It was really remarkable to see how quickly this tremor left their hands and feet, and how rapidly the nervous system settled down to a normal condition. This tremor and this excessively nervous condition were kept up by the poisons which were taken into the body in the form of coffee.

There are millions of nerve cells in the brain and spinal cord, each having a real and, in a measure, an independent

life, and an individual work to do. The aggregate of this work makes up the grand total of the work done by the nervous system. These nerve cells are a sort of little batteries for generating nerve force. The different organs of our bodies form a sort of machine for doing some kind of work, and the nervous system, in a sense, is simply a machine for getting out the energy that is taken into our bodies in the shape of food.

A nerve cell will not act unless it is stimulated; and everything we do, no matter what it may be, no matter how important or how simple it may be, that thing is always the result of something that has passed into our nervous system. We might say, without departing very far from the truth, that every nerve current that goes out of our brain or nervous system, at some time or other passed into our nervous system, or, putting it differently, what we do is largely the result of two things: (1) our former education and (2) our environments. We do not do a single thing without there being some reason for it—something to make us do it; and if we follow it up closely, we will find that that particular thing came into our experience back in our history, some time, a day, a month, a year, or perhaps several years ago. A nerve cell, then, will not send out a nerve current unless it is stimulated, until something comes in, and makes the nerve current discharge, and then it will pass out.

In the discharge of a nerve current, energy is liberated. A nerve current is not a myth; it is a real thing; we can measure it. It travels along the nerve at the rate of about 120 feet per second in men and other warm-blooded animals. In cold-blooded animals, as a frog; it travels much slower. But it is a real thing; it is a manifestation of force and energy; it takes energy to make it; and

the energy that it takes to make it, we take into our bodies as food.

In each cell there are food granules absorbed by the nerve cell. The function of the nerve cells is to get the nerve energy out of these granules,—to make a nerve current out of our food.

Some years ago, I made quite a large number of experiments while studying the effect of exercise upon the structure of the cell. In doing this, I examined the cells of two honey bees which were placed under a microscope. I found that the nerve cells of the bee that had not gathered honey, being examined in the morning, were large and full, and contained a large number of these little granules, representing a large amount of potential energy ready for the day's work. The other bee was examined in the afternoon, after it had been out gathering honey nearly all day. Its nerve cells were found to be in a different condition from those of the other bee: instead of being round in outline, they were irregular; they were also smaller than the cells of the other bee, and, in some instances, we could see holes in them—little openings in the nerve cells where the food material had been used up. This taught us that the bee which had not gone out to gather honey in the morning, had stored in its nerve cells a large amount of material, a large amount of energy, at least a sufficient amount to carry it through a number of hours' work. In the other case, the energy and the material stored up in the cells had been used up during the day. These experiments have been practiced upon different creatures, with the same result—showing that activity decreases the size of the nerve cells, and uses up the energy and material stored in them.

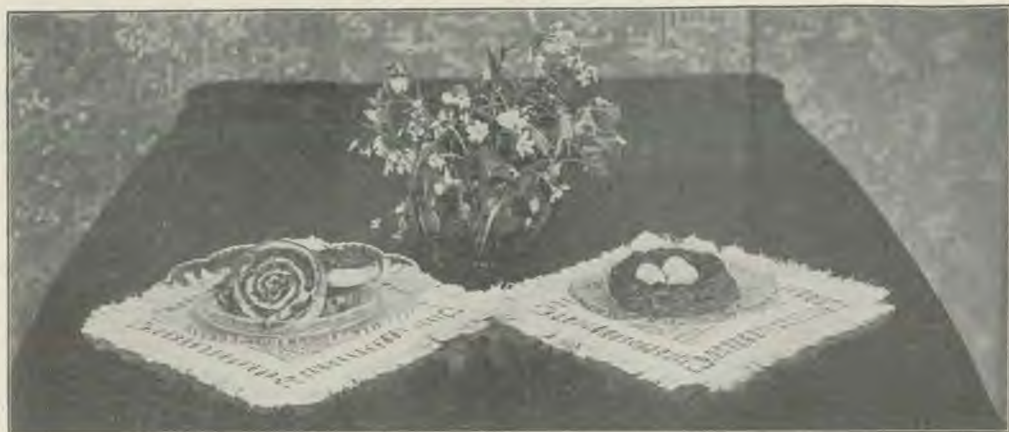
Now we go to bed every night for the purpose of sleeping. What good

does it do to sleep? Sleep simply restores these nerve cells after this discharge of energy through a day of activity. In the morning, after a night of good rest, we awake feeling refreshed and vigorous, and like taking exercise. If, after a comfortable night's sleep, we could examine our own cells, we would find that they were large, round, full, and regular in outline, and well filled with these little granules ready for a day of activity. After a day's activity, whether of mind or muscle, we are fatigued. If we could then examine the cells of our own bodies, we would find that they were irregular in outline and shrunken in appearance. Perhaps, if we were greatly fatigued, we would find little holes in them where the granules had dropped out.

Now the whole purpose of sleep is to rebuild the nerve cells, and to recharge them with new material for another day of activity.

When one has nervous exhaustion or neurasthenia, we might say that he is chronically tired, his nerve cells have run down; they have gotten into the condition of the honey bee who has worked until he is tired out; they are irregular in shape and smaller in size, and have a shrunken appearance, and they have lost their power to restore themselves.

There are certain limits within which our nerve cells run down during the day and are built up during the night; we speak of this process as being within certain physiological limits, and when those have been reached, we have lost the ability either to rebuild or to recharge them. We are then in what may be called a diseased condition, and such a person feels nervous, exhausted, and weak because of this lack of energy in his nerve cells.



FRUIT PIN WHEELS.

SPINACH BIRDS' NESTS.

AT COMMENCEMENT TIME.

BY MRS. E. E. KELLOGG.

WITH the advance of summer, the schools and colleges throughout the land open wide their doors to send forth the yearly host of graduates, young men and women supposed to be prepared to commence(?) life's work in earnest. Friends and comrades of these successful seekers after knowledge, aim to extend congratulatory entertainment of some sort, and banquets, receptions, parties, luncheons, and dinners belong to the general order for the time. It is well if on such occasions we do not make of what might most properly be a "feast of reason," an opportunity for mere sense gratification. With Mrs. Diaz, we think it well that "we sometimes call our friends together and gratify the whole of them (not meaning all of them, but the whole nature of each), give them bright thoughts for the intellect, friendliness for the heart, and good things for the palate, keeping, as regards the last, within the bounds of common sense and healthfulness."

The wealth of blossoming beauty, which enriches the month of June, makes possible many pleasing and deco-

orative affairs. One such, a "rose luncheon," served on a spacious wooded lawn, is both charming and unique. On the velvety green sward, arrange rustic chairs and benches, and hang hammocks between the trees. Let flower screens, made by filling the meshes of lawn-tennis nets with roses and sprays of green, separate the tables, arranged apart in convenient places upon the lawn, from which are served the courses making up the menu of the repast. Only one course being served from each table, when the guests have partaken of it, they pass along to the next.

A square table may be decorated with three flower strands of smilax and tiny white roses and rose buds, fastened together at one corner with a bow of white ribbon, and carried diagonally across the table, ending in fan shape on the other side of the table.

The following menu is suitable:—

Diploma Sandwiches	
Roasted Filberts	Ripe Olives
Crust Patties	Tomato Salad
Cream Crisps	Nut Cutlets
Fruit Pin Wheels	Angel Cake
Cherries	Apricots
Health Candy	Fruit Nectar

The dishes comprising the first course, with their accessories, may be daintily arranged in the three divisions of the fan.

The second table may be oblong. A large square doily embroidered with pink roses should ornament the center. On this, arrange a clear glass bowl filled

to form a graceful border around the cloth, near the edge of the table. In the center, have round baskets lined with yellow crêpe paper, and ornamented with ribbon, filled with large yellow cherries on stems, and apricots. China decorated with gold should be used for all purposes on this table.



A PRETTY IDEA FOR A CLASS BREAKFAST.

with the real flowers mingled with the green of delicate fern fronds, and at each corner of the centerpiece a similar though smaller bowl of pink roses. From the ends of the table, serve the articles making up the second course of the menu. Pink-banded china and rose-color glass will add to the attractiveness of the table.

The third table may be a round one. Arrange fern fronds and yellow roses

A well, built of stones, over which vines are arranged to clamber, may be provided to hold a large earthen jar containing the fruit nectar. An old-fashioned well sweep made of rather large branches of beech or maple, with a tiny wooden bucket attached, affords a pleasing method of serving.

Paper napkins should be distributed at each table, and chairs arranged near by, making it possible for the guests

to be seated if they choose. The patties and cutlets are the only foods to be served hot.

Another pretty idea is a class breakfast, the table to be placed on a broad piazza. The class colors, purple and white, for instance, may form the basis of the floral decorations, purple pansies and white roses being the flowers used. The menus at each cover may be rolled like diplomas, and tied with purple ribbon. A large floral diploma of white roses tied with purple ribbon may form the

centerpiece, or be suspended above it by purple ribbons. The following menu would be a suitable one for a breakfast to be served at eleven or twelve o'clock:—

	Strawberries	
Egg Timbales		Tomato Sauce
	Finger Rolls	
Baked Potatoes Creamed		Nests of Spinach
Nut filets		Crisps
	Sweet Sandwiches	
Marguerites		Fruit Juice

THE HORSE, DOG, AND MAN.

THE horse and the dog had tamed a man, and fastened him to a fence;
Said the horse to the dog: "For the life of me, I don't see a bit of sense
In letting him have the thumbs that grow at the sides of his hands, do you?"
And the dog looked solemn, and shook his head, and said: "I'm a goat if I do."

The poor man groaned, and tried to get loose, and sadly he begged them: "Stay!
You will rob me of things for which I have use, by cutting my thumbs away!
You will spoil my looks, you will cause me pain! And why should you treat me so?
As I am, God made me; and he knows best! Oh, masters, pray let me go!"

The dog laughed out, and the horse replied: "Oh, the cutting won't hurt. You see,
We'll have a hot iron to clap right on, as you did in your docking of me!
God gave you your thumbs and all, but still the Creator, you know, may fail
To do the artistic thing, as he did in furnishing me with a tail!"

So they bound the man, and cut off his thumbs, and were deaf to his pitiful cries,
And they seared the stumps, and they viewed their work with happy and dazzled eyes;
"How trim he appears," the horse exclaimed, "since his awkward thumbs are gone,
For the life of me I cannot see why the Lord ever put them on."

"Still, it seems to me," the dog replied, "that there's something else to do;
His ears look rather too long to me, and how do they look to you?"
The man cried out: "Oh, spare my ears! God fashioned them as you see,
And if you apply your knife to them you'll surely disfigure me."

"But you didn't disfigure me, you know," the dog decisively said,
"When you bound me fast, and trimmed my ears down close to the top of my head!"
So they let him moan, and they let him groan, while they cropped his ears away,
And they praised his looks when they let him up, and proud indeed were they.

But that was years and years ago, in an unenlightened age!
Such things are ended now, you know! we have reached a higher stage!
The ears and thumbs God gave to man are his to keep and wear,
And the cruel horse and dog look on, and never seem to care.

S. E. Kiser, in *Rider and Driver*.

RECIPES.

Diploma Sandwiches.— Make these of well-baked finger rolls, fermented or unfermented, as preferred. Divide in halves lengthwise. Remove a portion of the inner crumbs, and spread with a mixture of seasoned mayonnaise and minced protose, or, if preferred, hard-boiled egg which has been rendered homogeneous by pressing through a sieve. Place small, crisp lettuce leaves between the halves, put together, and serve piled on large leaves of lettuce.

Egg Timbales.— Beat together lightly six eggs, a tablespoonful of chopped parsley, ten drops of onion juice, one and one fourth cups of milk, and a scant teaspoonful of salt. The onion juice may be omitted, and a pinch of tarragon used if preferred. Pour into buttered timbale cups; set these cups in a dipper filled with hot water, and cook only until a knife thrust in the side of a cup comes out clean, or until set like custards. Invert the cups, and turn out into individual dishes. Pour tomato sauce around each timbale, and serve.

Crust Patties.— Beat the yolks of six eggs lightly with four tablespoonfuls of ice water and a half teaspoonful of salt. Add sufficient flour to make a dough stiff enough to knead. Knead well for a few minutes, and roll to about the thinness of a knife blade. Have prepared a dish of nut fillets, cooked and hot. Cut the crust into rounds. Place some of the fillets on one half of the round, turn the other half the crust

over, and press the edges together like turnovers. Bake on a roll baker until thoroughly done and slightly brown. Serve with or without tomato sauce.

Nests of Spinach.— Carefully clean and cook the spinach. Drain thoroughly, and pour over it a dressing made of equal parts lemon juice and strained tomato, with one tablespoonful of nut oil to each six tablespoonfuls of the lemon and tomato, with salt to taste.

Shape the seasoned spinach to form a nest upon individual plates, and place in each nest three small-sized eggs, shaped from egg nuttolene. These can be easier shaped if the nuttolene is first pressed through a colander.

Fruit Pin Wheels.— Take equal parts nut meal and pastry flour, sift together several times, and make into a soft dough with cold water. Press together, but do not knead; roll quite thinly. Spread lightly with almond butter, and then with a fruit mixture, made of equal parts chopped citron, Zante currants, and seedless raisins. Make a roll of the dough, cut into slices, and bake on a roll baker or perforated tins.

Nut Fillets.— Slice protose and nuttolene each one-half inch thick. Place slice of onion between protose and nuttolene, protose on top. Strain tomatoes, and stew down. Add for seasoning bay leaves and thyme and salt. Pour the dressing over the fillets. Bake one hour in a moderate oven. Garnish with parsley or lettuce.



A COMPOSITE CREATION.

BY EUGENE CHRISTIAN.

IT was a clear, cold morning when she came tripping out of a palatial residence, and boarded the Brooklyn street car bound for New York.

She sat up very straight, and looked up and down the car. As I looked, it dawned upon me what a composite creature she was. The corpses of twenty birds rested on her hat. The tails of eighteen different dead animals dangled from the skin of another which she wore about her neck. The trimming of her long cloak represented the lives of three other creatures. A monkey-skin belt, to which was suspended a crocodile bag with ten large claws, encircled her slender, whale-clad waist.

The bottom of her skirt told another story of death and bloodshed; while her little feet were neatly encased in cowhide, goat skin, and kangaroo hide.

In the language of the street she was "dressed to kill," but to the thoughtful the killing had been done to make the

dress. The toggery as a whole suggested the remains of a well-stocked zoo.

So much pain, so much blood, so much death! While these weird and gloomy reflections were settling down upon me, a brush of her slender hand, which was covered with another sort of dead animal's hide, exposed a green scorpion among the fluffy things at her neck. It may have been the motion of the car, but I thought I saw it wiggle a little.

Now, in all seriousness, it seems to me the strangest of all strange things that women, the most beautiful of all animate beings, should entertain for one moment the notion that she can add to her attractiveness by wearing on her body the skins of any dead things, or by having her jewelry made in the likeness of cold, slimy, creeping, poisonous, and uncanny reptiles, which the very dogs shun. Who can solve the problem for us?

RICE AS A FOOD IN INDIA.

BY M. W. BACHELER, M. D.

THE native of Bengal and Orissa, eats boiled rice twice daily, with a curry or spiced stew of vegetables or fish, or perhaps an onion, a potato baked in the ashes, an egg fruit, or pepper. The Hindu, as a rule, eats no meat but fish—although in some castes he may eat pigeons and some kinds of goat meat, and the diet rules among the very low castes are somewhat lax. Santals and some other of the aboriginal races and Mohammedans eat meat.

In estimating the rice allowance for orphanages, where the children's ages

and capacities vary, it is usual to reckon on an average, of about a pound and a half per child per day, though, of course, if the children's ages average high, the amount must be increased. A grown person can eat all of that at a sitting, and I have heard of two pounds being eaten at one meal.

Rice in the husk is steamed a little,—not so much as for the pounding,—and then is parched in sand over a hot fire. This is eaten in three different ways: plain (*khoi*), dipped in sugar syrup and dried (*cheeni moorki*), and dipped and worked

in molasses (*moorki*). Parched or popped without preliminary steaming (*hoorroom*), it is much used in the sick room. Another common way of preparing it is to soften the *dhan*, or pappy (rice in the husk), by boiling or steaming, and then pounding it in the *dhenki*. This is called *cheera*, and is much eaten by the natives, as a light lunch.

Mooree is perhaps the most eaten of all the fancy preparations of rice. It is prepared by parching the husked rice in a large earthen vessel, over a hot fire, and stirring briskly.

Khiri, made by boiling rice with milk, spices, and raisins, is a popular dessert. Partially cooked with meat and spices and fried in butter, it forms *pillao*, the national dish of the Mohammedans.

Rice is sometimes eaten raw, and I was once told by a farmer, that if it was swallowed without chewing at all, it was quite digestible, but mastication and salivation made it difficult of digestion.

Rice is sometimes crisped in a dry, hot kettle; it does not swell like popcorn or *mooree*, but shrivels a little, and becomes brown and dry.

The European sometimes makes a rather delicate cake from rice flour, but unless very fine, it is likely to be a little heavy.

Besides being, in a special sense, the staff of life, rice enters into the festal and religious life of the people. *Peethas* are made of rather coarse rice flour, mixed with salt and water, and steamed

for several hours, and are much eaten with coarse, brown sugar, at the time of the coming in of the Hindu year. Sometimes the sugar is put inside before cooking. *Peethas* are gray in color, heavy and soggy and moist in consistence, and as to their digestibility — well, the children, who are the principal consumers, make no complaints!

Rice water (prepared, I think, from *atob*, the unsteamed rice) is used to decorate the walls when certain gods and goddesses are specially worshiped. One of the goddesses is supposed to walk into the house, and her foot prints are rudely sketched with rice water on the path or veranda.

When a child is seven months old, the ceremony of *anna prasarina*, or the feast of rice, takes place, and rice for the first time is put into the child's mouth. "The feast of a child's first rice is celebrated by wealthy Hindus with great pomp. The goddess Shasti is first worshiped, then a feast is given to kinsmen." It is a time of great rejoicing and festivities. Sometimes the child puts on his first permanent clothing on this day. Heretofore, when it has been necessary to cover him, he has been wrapped loosely in the garment of an older person.

From this it will be seen that rice is an important factor in the daily life of the people of Bengal and Orissa, also that a diet of rice does not necessarily mean boiled rice alone, but rice prepared in various strange and palatable ways.



STRAWBERRIES.

BY LULU TEACHOUT BURDEN.

WITH June comes the well-favored and popular strawberry. Its universal popularity is no doubt almost as largely due to the auspicious time of the year at which it comes as to its beautiful outline, color, and flavor. But, be that as it may, it has no rival.

All fruits, including the strawberry, are largely composed of water, varying from seventy-five to ninety-five per cent. The acids that they contain are valuable, as they refresh and give tone to the system.

Unripe fruits contain starch which is changed into sugar during the ripening process. Their astringency comes from the tannic acid which they contain. Unripe fruits should never be used for food, as raw starch, of which they are so largely composed, is very hard to digest. There is, however, very seldom any unpleasant results from the use of sound, ripe fruit at proper times and in moderate amounts.

The strawberry belongs to the arterio group, in which are included raspberries, dewberries, and blackberries.

The wild strawberry was peddled by itinerant dealers about the streets of the ancient Roman and Grecian cities. In his pastoral poems Virgil sings of it, and Ovid speaks its praise. The name probably came from the old Saxon "strewberige," relating either to some fanciful resemblance of the stems to straws or to the fact that in the olden times the berries were strung upon straws by the children, and so many "straws of berries" were sold for a penny.

It is only within the last two centuries that any attention has been paid to the strawberry as a garden product.

The following is its analysis:—

Water	Albumen	Sugar	Free citric acid	Pectose	Mineral matter
87.6	0.5	4.5	1.3	0.1	0.6

It is the presence of pectose, which is changed into peptic and pectose acids, that makes it possible to convert the juice of ripe fruits into jelly. It is therefore the presence or absence of this element that makes the difference in the "jellying" quality of fruits.



NUT AND STRAWBERRY ICE.

It is quite necessary to wash fruit thoroughly before using, especially such as grow on bushes near the ground, as it may have particles of sand or fertilizer adhering to it; or if it has been exposed in the open market, it is more than likely to be contaminated by the flying dust of the street, which always contains dangerous disease germs.

In preparing fruit for the table it should always be remembered that fruit, especially of the more acid sorts, and milk or cream do not combine well, and that the addition of much sugar renders any fruit less digestible.



PINEAPPLE STRAWBERRY.

Strawberries are delicious served plain, after having been thoroughly washed. Some prefer them sweetened. Malted nuts is a nice addition to a dish of strawberries; it sweetens them some, and a pleasant combination of fruits and nuts is the result.

Nut and Strawberry Ice.—Dissolve one cupful of malted nuts in sufficient water to make a thin mixture. Sweeten to taste, after adding one cupful of strawberries which have been chopped with a knife or else cut into quarters. The berries are nice if allowed to stand for a time on ice, having been previously chopped and sweetened. Freeze and serve in sherbet cups or on a suitable dish. Garnish with whole berries by arranging them around the cup, and cut one in quarters, leaving the parts connected at the stem, for the center. The accompanying cut will serve to illustrate the manner of serving.

For variation, the water used in dissolving the malted nuts may be substituted by the use of the strawberry juice which has been strained from the chopped and sweetened berries after they have stood for a time.

Strawberry Snow.—Put one quart of strawberries, cut into halves, in a glass

bowl, and sprinkle with sugar. Beat until stiff the whites of two eggs, adding one tablespoonful of lemon juice when half beaten. Flavor with one-half teaspoonful of vanilla or orange flavoring, and pour the mixture over the fruit, serving at once. The success of this dish depends upon its being thoroughly chilled when served. The ingredients should be placed on ice at least two hours before the dish is served.

Pineapple Strawberries.—Cut the pulp from one half a pineapple, slice it into neat pieces, or else grate it, and after sweetening, allow it to stand an hour or two on ice. Meanwhile beat the whites of two eggs until light, and add one tablespoonful of lemon juice. Fold into this the pineapple pulp and a few strawberries cut into halves. Put into the pineapple shell, and garnish with the leaves from the top of the pineapple and strawberries cut into quarters. Serve when well chilled.

Strawberry Syllabub.—Half fill a glass bowl with thin slices of sponge cake. Pour over sufficient strawberry juice to dissolve the cake. Make a meringue, and flavor with orange juice. Pour this over the cake, and decorate the top with large strawberries.

MISTAKEN KINDNESS.

NOTHING more thoroughly delights the heart of a child than the gift of our smallest piece of national money, but it usually burns a very large hole in the pocket until it is spent for some indigestible morsel to torture the delicate little stomach.

The old proverb, "Penny wise, pound foolish," should be made to read, "Penny foolish, pound foolish," in these days when every child, no matter in what walk of life, has his constant supply of pennies to do with what he will.

Living in a large city and having the opportunity of watching these little tots in the various classes of society, we know whereof we speak, and summer sojournings have led us to believe that the unwise giving of pennies to the little folks is as general among the country people as those of the city, and the habit of spending them for candy is the same.

Mothers, take notice! Give Johnny a penny for some little service he has performed for you. How quickly will he scamper to the nearest place where candy is obtainable, and how rapidly will he devour the piece of terra alba adulterated with sugar and decorated with paint, that he obtains with his "legal tender." There may be model children who will not buy candy when they have pennies, but they are few and far between.

Children of intelligent parents are often forbidden many nutritious articles of diet, for some fancied cause; but they are allowed pennies without limit, and are not restricted upon the spending of the same; and it is always candy, candy, candy that they buy, to the end of the chapter. We see the doctor's carriage before the various doors; we

see decayed teeth in the little mouths, teeth that should be white and sound until they drop out to make room for the big new ones. What is more, we see so much money thoughtlessly wasted, and the bad habit of careless spending encouraged. It is not only among those who can spare it that the money is thus thrown away, for in the city no neighborhood is so poor but that the candy store is there, and in rags and dirt the children flock with the pennies, the value of which no one teaches them, and the spending of which is a robbery to the household comfort.

In a recent "festival" two small specimens of boyhood went out to spend the pennies they had hoarded for the occasion. They could easily have chosen some game or toy that would have afforded them amusement for a long time, but their treasured pennies, amounting to about twenty-five cents each, quickly disappeared for candy, and they brought nothing home with them but a bad taste in their mouths, and the cheerful possibility of a wakeful night.

The proper value of money is an important part of a child's education, and is a subject to which the attention of mothers is very seldom called. To hoard for its own sake, for mere money getting, it not the proper motive; but to save the little sums that are earned or received as gifts, that some desired object may be purchaser, will teach, not only thrift and self-denial, but the habit of working with an end in view, and make living not only a mere matter of daily pleasure, but of useful endeavor. It is a good plan to have a small bank for the little ones, which they cannot open, and encourage them to collect all their pennies in this until a certain

time, when the bank is to be opened, the money counted, and some greatly desired object purchased.

Nothing will so quickly teach the youngsters the value of saving, and the joy of spending judiciously, as this plan. They will look forward with the most joyful anticipation to the day set for opening the bank, and will anxiously count the pennies that have been

so carefully hoarded, and the result of the purchase will be an incentive to fresh endeavor for the following period of saving. And this saving with some special object in view will lay the foundation for wise investments in the future, when, no longer children, they settle down to the real business of life. — *Phoebe W. Humphreys, in Mothers' Journal.*

PLAYGROUNDS FOR GROWN PEOPLE.



PLAY! To children this word covers broadly one of the great essentials of their natures. The child that is deprived by

circumstance or force of the joy of play is robbed of youth's best heritage. To men, work worn and burdened with the responsibilities of years, the word stirs the memory with a magical reaction that brings feelings of sadness, though it does call up visions of life's happiest days.

Play is one of Nature's tonics, a bequest she makes to all her children, both animal and human.

In this busy age, when generations are being wasted by an absurd strenuousness, one of the few real needs is simple, whole-hearted play. There is an unqualified bliss in the abandonment of nature to this primal recreation. Men have been crushed into joyless, almost heartless beings, and they seem to be ignorant of the things that will free them from the accursed spell.

Play is the only antidote for toil. As used here, the word is meant to include

the larger pastimes which "grown ups" indicate as recreation, rest, etc. It is all play, and had as well be designated by the right name. It is disgraceful for any race of enlightened Christians people to stand self-confessed of such guilt, but it is the shameful truth that many classes of society are utterly, hopelessly deprived of the privilege of play, except for their poor offspring that manage to find a few meager, fleeting joys in the corners of dark, barren tenements and in loathsome alleys. It is sufficient here to say that this is a base perversion of divine plans. Toil which reduces human beings to such a state is as much a crime as is slavery.

In a class almost as much to be pitied as the one just mentioned, belong those who, though occupying far different stations in life, are driven heedlessly on by desire of worldly possessions, or by that cold, calculating taskmaster who constantly urges the necessity of making sure provision for family and self before old age comes and finds the unfortunate at the mercy of a not over-kind world. This class is sorely in need of patient, determined teachers to recall it to childhood, and to show it that life so lived is not only wasted, but blasted. As to the first class, there is only one thing to be said: It must

be helped; the possibilities and means of play must be put within its reach.

Play is such a simple virtue that many forget its youthful stimulation and influence, and think it idleness. We have always heard much of the value of improving every moment of our time. Wholesome play is one of those improvements.

Proper play is only natural, and, like all natural acts, has its own reward, which is health.

In recent years there have been organizations formed for the purpose of providing children of the poor in great cities, with places and means of play. It is to be supposed that these organizations have accomplished at least their quota of good.

Why not have playgrounds for men and women, too? Is it to be supposed that because they are advanced in years and have to work and wrestle with responsibilities that there is never a childish impulse in them? The child is never entirely destroyed in any human being. One of the sorrowful sights of earth is made up of men and women who have been broken with toil and have no means of relaxation. Why could there not be playground associations for these men and women? Why not have places in the parks of large cities like New York, Boston, Philadelphia, Baltimore, Chicago, and St. Louis, where men may go on holidays, and enjoy themselves, and

be boys again? And other grounds for the women, where they can congregate when they have opportunities, and restore some of the lost joys of their girlhood?

Why not found a few institutions for the prevention of disease, instead of founding so many for its cure? And besides, a playground is more cheerful than a hospital or a dispensary.

These playgrounds might have large fields where all manner of sports could be carried on; and there might be spacious natatoriums and inclosures or covered places provided with gymnastical appliances. All this should be absolutely free, but under proper regulation. Its chief cost to a city would be the equipment; its maintenance would be a mere pittance.

The full measure of good that would be derived from such institutions cannot be realized except by those who have experienced the gladness of stretching tired, work-stiffened limbs in healthful exercise.

The Greeks and Romans had playgrounds. Who can picture the Olympian games and the fair young gods that participated in them? Greece had physical perfection, but she lacked charity; if there be charity to-day, let it be combined with physical redemption, and mankind will surge upward toward a higher mark of civilization.—*James Ravenscroft, in Health.*



GENERAL TOPICS.

Bad Diet, Not Overwork.

"It is a very common and mischievous notion that unless an article of food doubles up a child with colic, or throws him into a fever within twenty-four hours, it does him no harm. We often see whole families of children who are thin, sallow, and nervous. They lose many days of school because they cannot 'keep up,' and the parents complain bitterly of 'our high-pressure system.' They are bilious, or have headache, or 'summer complaints,' or they cannot sleep, or they have no appetite. In short, they are sick half the time, or half sick all the time.

"But suggest to the mother of this family that perhaps their food is not suitable, and she will indignantly answer, 'Oh, no! they never eat anything that hurts them!' The blame is laid on malaria,—that modern scapegoat who bears our sins of eating and drinking,—or on overstudy, or nervousness, or delicate constitution, or anything but the real reason. The actual trouble is that the stomach is doing its hard work on brain.

"Brain and body call for strong, rich blood to build up their rapidly growing tissues, and to replace what exercise and study burn up. But what does the stomach get to make it of?—Greasy meats, with all the life-giving qualities cooked out of them; hot bread or compounds like it; all kinds of fried abominations whose original excellence is destroyed by being steeped in boiling lard; rich cake and pies, sweets and candy. All these tax digestion to its utmost, and give little nutriment in return.

"Poor Jennie starts off to school after a restless night in a room with every window closed for fear of 'the night

air,' with nothing for breakfast but a cup of strong coffee 'to keep up her strength,' and a hot roll. 'She never has any appetite mornings.' She comes home to dinner faint and hungry, to find roast pork and mince pie, or fried ham and heavy apple dumplings, which her poor, eager stomach takes and tumbles over and over all the afternoon, while her brain labors heavily with the afternoon lessons. A supper of something which tempts, but does not nourish, the tired stomach, finishes the day. Her lessons are not learned. How could they be? So she works drearily and clumsily all the evening, then goes late to bed in her close room, with lessons, lessons in her head all night. No wonder that she cannot eat any breakfast the next morning."—*Selected.*

The Tobacco Habit.

Many physicians never realize the detrimental effects of tobacco on some of their patients. Yet it is common to read about "tobacco heart" and other results that follow the habit of using tobacco.

There is no doubt that some persons cannot use tobacco in any form, or in any amount, without positive injury. In persons who are of the nervous temperament, we will generally find that tobacco will produce functional heart disease, and this, too, is very often associated with gastric catarrh, or some other affection. I have seen many cases of catarrh of the stomach, which resulted from the constant and liberal employment of tobacco. Tobacco, either smoked or chewed, causes the greatest activity of the salivary glands, and in this way, of course, works great detriment to our patient.

Patients come to us, complaining of pain in the region of the heart; along with this is associated palpitation, which always causes the patient alarm. These symptoms may be found in many, and, I might say, are due to excessive employment of tobacco. Patients will also apply who complain of sick stomach after eating, with or without palpitation of the heart. These and other symptoms will almost invariably be found associated with tobacco poison.—*The Medical Summary*.

The Eating of Fruit.

If people ate more fruit, they would take less medicine and have better health. There is an old saying that fruit is gold in the morning and lead at night. As a matter of fact, it may be gold at both times, but it should be eaten on an empty stomach and not as a dessert, when the appetite is satisfied and digestion is already sufficiently taxed. Fruit taken in the morning before the fast of the night has been broken is very refreshing, and it serves as a stimulus to the digestive organs. A ripe apple or an orange may be taken at this time with good effect. Fruit, to be really valuable as an article of diet, should be ripe, sound, and in every way of good quality, and, if possible, it should be eaten raw. Instead of eating a plate of ham or eggs and bacon for breakfast, most people would do far better if they took some grapes, pears, or apples,—fresh fruit, as long as it is to be had, and after that they can fall back on stewed prunes, figs, etc. If only fruit of some sort formed an important item in their breakfast, women would generally feel brighter and stronger, and would have far better complexions than is the rule at present.—*Woman's Medical Journal*, February, 1902.

The Value of Pure Air.

There is nothing more essential to health than fresh air and sunshine, not only in outdoor exercise, but in the home. Especially must the living and sleeping rooms have sunlight and ventilation. Many cases of inactive skins and scalp troubles and poor complexions are due to sleeping in badly ventilated rooms. It should be understood generally that one of the missions of the sun is to deodorize and purify. There is vitality in the sunlight.

The sun is the great enemy of disease germs. Let the sun have a chance to do its work in the sleeping rooms. A prejudice in favor of having one's housework done early in the day, should not beguile the mistress into having her beds made up before they are thoroughly aired. The care of the beds and bedding bears most directly on the health. Every article of clothing should be removed from the bed, piece by piece, as soon as the occupant leaves it, and placed where the fresh air from the opened windows may circulate through the fabric. The mattress should be exposed to light, and, if there are two, the top one should be thrown back and the other permitted to cool and air.

In chambers having a western exposure, the beds should frequently be left unmade until the afternoon, in order that the clothing may have the full benefit of the sun. No false notion of tidiness should be permitted to defeat the higher purpose of keeping the home pure and healthful.

It seems that in winter we take every possible means to guard against admitting the cold into the house. Storm doors are hung, extra windows are fastened on, and every crack and crevice where a breath of air could enter is closed. We are sheltered from

the supposed enemy, little realizing we are refusing admittance to our best friend — pure air.

Poisoned air is inhaled all night long when the windows have been opened and the room aired in the morning for a few moments, and then closed until the next day. The odors from the different departments of the house are not confined to the lower part of the house, but reach the sleeping rooms as well. This is the kind of air thousands of intelligent, educated persons breathe in the cold months. Even on the coldest days the windows should be down at the top, and up at the bottom, if only a few inches. This will give good ventilation, the impure air going out at the top, and the pure air coming in at the bottom.

When undergarments worn during the day are to be put on again, they should be turned inside out, and hung loosely about the room for airing during the night. The night robes should be aired by day in the sun. The habit of hiding them away in dark closets, or rolling them up closely and packing them behind pillows is bad. Expose the garments to the light, and, better still, have them cleansed and freshened by hanging on a line in the air and sun.

Fresh air and sunshine should be had in every conceivable way. They are Nature's free gifts to all; so don't shut them out of your lives.—*American Homes*.

A Great Pedestrian Race in Prospect.

A walking match, greater than any which has yet taken place in Germany, is arranged for Whitsuntide. The promoters are the members of the Berlin Sporting Club, "Comet." The distance from Dresden to Berlin covering 205 km. (120 English miles) is to be walked without resting, and to be accomplished

in twenty-eight hours. Competitors of all nationalities can enter. If the conditions be met, it will beat Sinclair's record of 1879, and that was accomplished on a smooth road, whereas between Dresden and Berlin there lies some very rough walking. It will need, therefore, considerable endurance. Herr Karl Mann says in the *Warte* that he knows the eyes of sporting and medical circles are turned upon them, and he calls upon all his brethren who feel able to cope with such an undertaking, to enter and uphold the credit of vegetarianism. We note with pleasure that he means to enter, if he can find time for training during the spring. He feels that this competition will be followed with keen interest by physicians and physiologists, and he would like vegetarians to show that men who abstain from alcohol and flesh food can do as well as others, or better. He regrets that in Germany no one has done for the training of young vegetarians what Mr. Light has done in England; but he expresses his readiness to do what may yet be done in this direction before Whitsuntide.—*The Vegetarian Messenger*.

Is Fruit Nutritious?

Some German alopaths having said that fruit cannot be looked upon as food because it contains so much water, Herr Buerdorff sends a lengthy paper to the *Vegetarische Warte* on this subject. I need not follow him into all the details of the nutritious elements contained in fruit, but I think he deserves our recognition for bringing out a few points.

He shows the absurdity of the "much water" argument. What about so many articles which are strongly advised by the same doctors; beer, for instance, which contains from eighty-seven to ninety-six per cent water? What about

milk? Grass, too, though not fit for human consumption, serves the horse and cow very well, and it contains eighty-two per cent water. Human milk, which builds up the frame, contains even more; namely, eighty-nine per cent. And what about the much-vaunted beef, with its seventy-two per cent, and eggs, with their seventy-four per cent? But what of all this? Water is necessary: we have to take our food in solution in order to deal with it. Water we need and must have; but it is by no means immaterial what kind of water we have. And that which is contained in ripe fruit is admittedly the best. — *The Vegetarian Messenger.*

Keep Out the Flies.

Some people think it is healthful to have flies around: say that they are natural scavengers, etc., etc. What they do with the offending matter after they take it away, is not stated; but as they do not wander far from where they get their supplies, it is not to be supposed that they transport very far the débris they may accumulate.

They certainly injure the nerves of such persons as they encounter, or, rather, as encounter them; and thus very often drive people into sickness that might otherwise have been avoided; and there is no knowing how many germs of disease they carry from one place to another.

"Several years ago," says an observing lady, "sitting near a window, I noticed a fly buzzing on the windowsill; he seemed clumsy; would fly a little, then stop, and clean his wings and body with his feet — after the manner of flies. I was interested, and got the microscope and looked through it. The fly was covered with little brown parasites, so small that I could not see them with the naked

eye. No wonder it was clumsy! I took a fine needle and pushed one off. It clung with its proboscis, just as a plant aphid does on the leaf of a plant. The fly seemed to like my efforts in its behalf, and kept still. I felt that I must cremate it and its companions together; while doing this, I made up my mind that no more flies should come inside my dwelling — if I could help it. I would fight it out on that line if it took all summer, like our famous general; I still hold to that mind."

Some people give flies the full range of the house, but welcome them to unhospitable graves of adhesive paper. It is a cruel sight — scores or hundreds of these little insects, caught by a leg, a wing, and gradually smothered to death in the merciless substance which they had supposed contained nourishment instead of death.

The best way is to keep them where they belong — out of doors. They can make a living in the open, and can there enjoy all their allotted days and hours. It does not cost so very much to put screens in every window and doorway, and if you begin early enough in the spring and keep at work, you can have a flyless house all summer.

A good many screens do not screen; there are little defects in them, and places through which flies can crawl. The little insects are wonderfully ingenious at finding these little open doors, and although the number that get in may be much diminished by even faulty screens, it is far better to have them practically invulnerable, which may very easily be done. — *Everywhere.*

Comfort in Warm Weather.

Few people understand how to make themselves comfortable in warm weather. In fact, a majority of us, on a hot day, unconsciously add "fuel to

the fire" in a score of ways, which thoughtfulness and good judgment might lead us to avoid. The morning is close and sultry, which may doubtless be a pretty good excuse for languor and laziness; but suddenly, perchance, the breakfast bell rings, and you must hurry to get ready, which is a great mistake at the beginning of a hot day. Most likely, some impatience comes with the haste, and the result is that the blood becomes additionally heated. The common salutation, "How hot it is! I don't believe I slept a wink last night!" the constant fluttering of a fan, the quantity of ice water consumed, and the perpetual doing nothing except thinking and talking about the heat, all tend to increase the discomfort which though we may not wholly escape in midsummer, is made quite endurable by proper management. The observance of a few simple rules will give coolness and comfort.

Never hurry; to which end do not be behindhand in anything which must be done. Take light, cooling, but nutritious food, and don't drink too much. Do not be forever talking about the heat, it makes one feel ten times hotter. Of course, never get angry, and do not fret, whatever happens; but keep the mind in a placid state. As a general rule, keep fans to be used in fainting fits. If you must go out in the blazing sunshine, do not be afraid to carry an umbrella. By all means, even if there is no necessity of working, provide for yourself some light occupation, and attend to it diligently during proper hours; nothing makes one so thoroughly uncomfortable in hot weather as having "nothing to do." Avoid crowds; dress lightly, in spite of fashion; take regular sleep, and plenty of it; bathe slowly; and use moderation in all things.—*Selected.*

PLEASANT PRESCRIPTIONS.

ONE word, you hypochondriac;
Let nature heal your woes.
If you are blue, despondent,
Just call on Dr. Rose.
With thorns, mayhap he'll lance you,
But then, to heal the smart,
He'll charm you with his beauty
And sweetness rare impart.

If appetite is flagging,
Just call on Dr. Green.
He'll take you through the meadows:
Where beauties rare are seen.
He'll give you the green-leaf tonic
And spices from the wood;
One treatment will convince you
His medicine is good.

Mayhap *ennui* afflicts you;
Go call on Dr. Lark
(You'll find him in the meadows)
And to his music hark.
He'll tell you of the woodland,
Breathe secrets of the hills;
And listening to his sweetest notes
Will vanish all your ills.

Therefore I am repeating:
Let Nature cure your woes.
There's healing in the meadows;
There's health hid in the rose.
Go revel in the gladness
That's rampant in the hills,
And flowers, birds, and beauty
Will rob you of your ills.

—*Buffalo News.*

Indigestion and Lying.

Dr. Max Groszman, of New York, has, after much study and research, discovered that indigestion makes people tell lies. He declares that truthfulness may return when the indigestion is cured. Dr. Groszman's discovery is destined to be of the greatest importance to mankind. Who can estimate what the world may have lost because of mistaken notions of lying and its causes in past ages? It is frightful to think of the trunk straps and birch rods that have been laid over the backs of boys who needed pills or powders or perhaps just open air and exercise.

Another interesting feature of Dr. Groszman's discovery is the effect it may have upon our future political cam-

paigns. Spell binders may be undone by villains who surreptitiously put medicine into their coffee or their oatmeal, thus compelling their digestive organs to operate so well that the truth alone will be dear to them.

It is a fearful as well as a wonderful prospect that Dr. Groszman has opened up.—*Selected.*

Diet and Kidney Diseases.

The relation of diet and kidney disease is conclusively shown by the fact that it is comparatively rare in fruit-producing sections of the globe where fruit enters largely into the dietary of the inhabitants.

Tobacco and Insanity.

An ex-superintendent of an insane asylum reports five cases of insanity due to the use of tobacco, which have come under his care. Doubtless an unbiased study of this subject would reveal the fact that a vast amount of nervousness, hysteria, melancholia, and even actual insanity may be due to the use of this poisonous weed.

Health Crumbs.

Don't worry.

Don't hurry. "Too swift arrives as tardy as too slow."

Don't overeat. Don't starve. "Let your moderation be known to all men."

Court the fresh air day and night. "O, if you knew what was in fresh air!"

Sleep and rest abundantly. Sleep is Nature's benediction.

Spend each day less nervous energy than you make.

Be cheerful. "A light heart lives long." Think only healthful thoughts.

"As a man thinketh in his heart, so is he."

"Seek peace and pursue it."

Work like a man; but don't be worked to death.

Avoid passion and excitement. A moment's anger may be fatal.

Associate with healthy people. Health is contagious as well as disease.

—*Selected.*

The Effect of Public School Education upon the Health of the College Girl.

A girl enters upon her college life with the same neurotic tendencies that she acquired in the lower school. These may progress to such an extent that they culminate in a breakdown. On careful questioning by the physician it will be found that the foundation of ill health was laid, in the majority of cases, during the age of puberty. Another may, by rigidly conforming to the rules of health, maintain such an equilibrium of her forces that she leaves the institution in much the same physical condition as when she entered. Still a third, who starts with delicate health, will gain during the added years of study, and go out into the world a stronger, more robust woman.

A medical adviser to-day who makes a physical examination of girls, when they come to the college, broadly divides them into two groups—athletic and nonathletic.

It is ten years since Dr. Sargent had modeled a statue representing the typical American student,—the fifty-percent class. Were he to have one made of the same percental grade now, the proportions would have to be changed. The type would be better because of the influence of gymnastics and athletics in the lower schools. Bicycling, golf, and increased interest in all out-of-door sports have also done much to raise the standard. Nevertheless, the faults of the American type would still be

marked; namely, flat chest, hollow back, and prominent abdomen.

Observation of two thousand students in finishing school and college, gave the following tabulated result: Thirty per cent were either wearing glasses or had been ordered to have their eyes examined by a specialist; six per cent had defective hearing; four per cent had flatfoot; five per cent had weak lungs; four per cent had heart trouble; two per cent had kidney lesions. Menstrual difficulties were the most marked; seventy-five per cent were found with irregularities dating from puberty; sixty per cent had to give up from one half to two days; and ninety per cent had leucorrhœa. Of those whose records were kept of four years' examinations (up to the beginning of the senior year), thirty per cent showed marked improvement, thirty per cent were not influenced either way, while forty per cent were not improved.

Since these defects date to the time when menstruation first takes place, when habit neuroses are most easily formed, when morbid sensitiveness keeps the girl at work in school, the reconstruction in her education must be made in the preparatory schools. For whatever position in life she is to occupy, she needs good, sound health. Education at the expense of health is worthless. A sound mind in a sound body is a priceless possession. The college girl should represent that type.—*Jane Kelly Sabine, M. D., in the Boston Medical Journal.*

Insect Repellants.

It is claimed that no mosquito can endure the odor of the oils of citronella or of pennyroyal, and that the odor of the oil of mint repels, and the odor of thyme attracts, insects. A box of mignonette and geraniums in blossom in a window are as effectual in barring the entrance of a plague of flies as a wire

screen, and far pleasanter to the eye. Flies have a decided aversion to the oil of bay leaves, and a few drops in a dish placed near the window will prevent their unwelcome visits.—*The Dental Summary.*

The Chemical Value of the Human Body.

An ingenious chemist has made the claim that the average human being is worth about \$18,300 from the chemical standpoint. His calculations are based on the fact that the human body contains three pounds and thirteen ounces of calcium; calcium, just now, is worth \$300 an ounce.—*Scientific American.*

Infection of Oysters by Sewage.

Those who are afraid to eat oysters because of the possibility that they may contain typhoid germs, will not be greatly reassured by an investigation of the oyster beds of Narragansett Bay, described in a paper read before the American Bacteriological Association, by Caleb A. Fuller of Brown University. The following are his conclusions as abstracted in *Science*:—

The city of Providence discharges, daily, about fourteen million gallons of sewage into upper Narragansett Bay, chiefly through a single main. This sewage is carried down the bay by tide, and comes into more or less direct contact with some of the oyster beds. Samples of water and oysters were collected from different localities in the bay, and analyses made before the material was six hours old. The ordinary tests for sewage contaminations were used,—the fermentation tube, carbol broth, and litmus lactose agar. The results showed that water, oysters, mussels, and clams from a point one quarter of a mile distant from the sewer opening, contained

three varieties of intestinal bacilli, and water and oysters from a bed two miles below the sewer, contained the same organisms. Thirty per cent of the oysters and about sixty per cent of the water samples from a bed situated in a strong tidal current, about five miles from the sewer, contained the common colon bacillus, and forty per cent of the oysters and seventy per cent of the water samples from a bed in sluggish water, five and a quarter miles from the sewer, contained the same organism. Oysters from a bed six and one-half miles below the sewer contained no colon bacilli, although the water showed their presence occasionally on a falling tide. Beds still farther down the bay were entirely free from contamination.—*The Literary Digest*.

GENUINE BEAUTY.

BEAUTIFUL faces are those that wear,
It matters little if dark or fair,
Whole-souled honesty printed there.

Beautiful eyes are those that show,
Like crystal panes where hearth fires glow,
Beautiful thoughts that burn below.

Beautiful lips are those whose words
Leap from the heart like songs of birds,
Yet whose utterance prudence girds.

Beautiful hands are those that do
Work that is earnest and brave and true,
Moment by moment the long day through.

Beautiful feet are those that go
On kindly ministry to and fro,
Down lowliest ways, if God wills so.

Beautiful shoulders are those that bear
Ceaseless burdens of homely care
With patient grace and daily prayer.

Beautiful lives are those that bless,—
Silent rivers of happiness,—
Whose hidden fountains but few may guess.
—*Selected*.

First Principles in Dress.

First there comes health, because it is not simply a grace, but a virtue, and your dress must be so modeled as never to transgress its laws. Here is a form,

well called divine, but every muscle has its work and its necessities of motion, every inch of yielding surface makes imperious demand; and delicate framework, elastic muscle, and satiny skin are built about a mechanism marvelous in its possibilities for pleasure and pain. How are you to meet its requirements, how escape wrecking and ruining it by your careless or clumsy handling, unless you will make a study of it, and know something more of the body than its outside surface? A dress that compresses, constricts, or burdens any part of the body, violates a fundamental law, and is a wholly unnecessary evil.

Comfort might be supposed to be synonymous with health, but unfortunately for us, it is not; these long-suffering bodies may be sorely abused before they cry out audibly, and many a woman insists that her dress is comfortable because she does not know what comfort is. She is like a person with defective vision, who spends half his life in partial twilight without discovering that healthy eyes distinguish flowers and leaves and features. She does not connect her weary, uncomfortable feelings, her fatigue in walking or working, her lack of zest in amusement and recreation, with the burdensome and inconvenient style of dress to which she has been accustomed. And right here comes in adaptability.

Your dress must not only be healthful and comfortable, but it must be suited to your business. Garments that are admirable in the parlor, are wholly out of place in the carriage; or they may be suited to the carriage, and worse than absurd on the sidewalk; charming for a reception or an afternoon tea, but utterly ridiculous for a shopping excursion. It shows a lack of thought in our women that one so constantly sees garments worn grotesquely out of place,

and that the women who can afford but one new gown for a season, should choose it for fanciful prettiness, in spite of the fact that it must serve for work days as well as holidays.

Dress ought to be beautiful as far as it can, to harmonize with womanhood, which was meant in itself to be beautiful. There is no virtue in ugliness, nor any safeguard against vanity in an uncouth, unbecoming garment; and a beautiful woman in a beautiful dress is as pure a source of delight as the exquisite shape and hue and fragrance of the blossoms of June.

Simplicity, far from being at variance with beauty, is often its chief element; and the perfection of art is reached in costumes that show fewest traces of construction, but by simple and graceful lines suggest the growth of the flower rather than the building of an ornate house. And while the simple garment is more likely to harmonize with the laws of health and comfort, it is sure to be more adaptable for purposes where any attempt at the picturesque results most disastrously.

Some day our women will learn that to be beautiful they must be healthy; that to be healthy they must make a study of rational dress; that the human form as God made it, is lovelier than any device of the dressmaker. There will be more individuality in dress, but less violation of fundamental law; just as many beautiful gowns, but a great many more plain, simple, substantial ones to take the place of the flimsy creations of an uneducated taste. — *Selected.*

An Argument for the Vegetarians.

Vegetarians who object to eating meat, because it involves the slaughter of animals, will doubtless find an argument for their side of the case in an

event which recently happened in New York State, where the six-year-old son of a butcher, who had often seen his father kill cattle, became possessed with a desire to follow the paternal example. No animal at hand, he selected his younger brother. He fastened a rope about the smaller boy's neck, led him to the slaughterhouse, fastened the rope through a ring in the floor, and drew his head down to the floor. Then, seizing a heavy piece of iron, he struck him on the head, knocking him senseless. The young butcher then fastened another rope to his victim's feet, and, turning the windlass to which it was attached, triced his brother's body in the air, feet first. Unable to find a knife in the slaughterhouse, he hastened to the house, and asked his mother for one, saying he was playing butcher, and had a cow ready to skin. Suspecting something wrong, the mother hastened to the slaughterhouse. She lost no time in lowering the suspended boy, who regained consciousness in about two hours.—*Illustrated Magazine Section.*

Taking Cold.

Many people are always taking cold, and hence are almost chronically catarrhal, because the spine is weak. Find measures to tone up the spinal cord; relieve its susceptibility, and the patient will cease to take cold.

If you will notice the spine of these neurotic patients, you will see that, however young, they usually have round shoulders and stoop forward like old men. The muscles of the back and abdomen are all feeble and relaxed. The internal organs under the control of the spine, sag, prolapse, and are ill-regulated, because the spine has little power to exert over them. The sympathetic nervous system has undue prominence,

and a disturbance to one organ is exaggerated and rapidly spreads to others. It is like anarchy where there is no law to check it.

The three most sensitive centers are: The nape of the neck, the neighborhood of the fourth and fifth dorsal vertebræ, and the "small of the back, or lumbar region."

To relieve the tendency to spinal congestion, weakness, and undue sensitiveness, the patient must first train himself or herself to sit and stand erect. This requires an effort of will and constant attention in the beginning, but a little practice will soon develop and make firm and strong that long, powerful muscle which runs along the side of the backbone, called erector spinæ. Then arm and leg movements should be practiced a few moments daily to strengthen the several layers of muscle in the back.
—*Indian Medical Record.*

Air and Water.

Air and water are two remedies apt to be overlooked by the medical profession in the search for cures; yet, as all progress is constantly bringing us back to, and accentuating the value of, first principles, we occasionally find cases on whom all medicines have lost effect, and who yet can be restored by the intelligent use of these two natural agencies.

We have a case in mind at this writing. The patient had been an invalid for years. She had been the round of doctors and pathies. Had experimented with all the fads at home and abroad, with only temporary benefit. At length she fell into the hands of a common-sense doctor in a little country town where she was passing the summer.

He regulated her diet, and established her habits on a sound hygienic basis. Then he taught her how to breathe

(something which many people do not know), and insisted that she drop everything and devote a few minutes several times a day to proper breathing. Also, and most important of all, that she drink a glass of water every hour of the day while awake.

She followed the directions to the letter, principally out of curiosity at first, and later, because she began to see the good effects of the treatment. Her color improved, her flesh became firm, and her bowels regular. In six months she was perfectly well.

The tissues of this woman were full of impurities, which the increased supply of oxygen and water either burned up or flushed out into the proper channels of elimination. The circulation and excretory organs felt the stimulus of the additional fluid and increased their work. When the autotoxemia was relieved, all the unpleasant symptoms subsided.

The good effects which follow a sojourn at the various mineral springs, are due chiefly to the large amount of water drunk, and the moderate amount of exercise involved in getting it.

Consumption is a house-air disease; probably catarrh is also. In all chronic diseases there is a condition of self-poisoning. Here the remedial value of air and water is not half appreciated. Give your patients a tablet to be dissolved in a glass of water, or a small vial from which a few drops may be added, to insure that they drink the full amount. Insist upon their going outside, warmly wrapped in cold or inclement weather, and breathing deeply, slowly, regularly, at certain intervals during the day.

At the end of a few weeks or months you will be perfectly astounded at the alteration for the better effected in apparently desperate cases, without a drop of medicine. Try it.—*The Medical Brief.*

The Value of Bananas.

All those who love that delicious fruit will welcome Herr J. Drummer's praise of the banana. He writes from Brazil, where he has lived for some years. Unfortunately we do not get our bananas in a ripe condition; like most tropical fruits which are exported, it has to be plucked before the sun has finished its glorious operation of converting the starch into sugar. This ripening process can only be properly completed while the banana is part of its living organism, the whole plant. It has often surprised me how few people realize this with reference to fruits of every kind. Dealers will answer one's remark that a certain fruit is not ripe, with, "It will ripen in a few days." My own conviction is that no fruit ever ripens after it is plucked and packed into a basket. Very hard fruit may soften and mellow, may even need this in order to be palatable; but surely this is not ripening. And I have, moreover, experienced, and heard from fruit growers, that only in proportion as the fruit is ripe before it is plucked will it properly mellow.

"If," says Herr Drummer, "some Brazilians have bad teeth, it must be due, not to the banana, but to their excessive love of sweetmeats and confectionery, and to the quantities of hot native-grown tea used." The writer further gives his experience as a fruinarian in this tropical region. He feels best when he works hardest. He lives on from three to four bananas and from five to six sweet oranges three times per day; at noon, in addition, a little grated cocoonut. This has been his diet for weeks together, but he varies his fruit with the

season. Only very seldom comes the old longing for a cooked vegetable.—*The Vegetarian Messenger*.

THE CIGARETTE.

A POISONED thing, adroit to please,
It winds its deadly way in haste,
And leaves behind a barren waste
Of shattered hopes, and crime, disease;

And useless lives bereft of strength,
Who fail, though hard they try to break
Its awful grip. Each breath they take
Entwines them in its deadening length.

A curse, that steals the will, the brain;
That robs all honor, love, and life,
And gives instead a world of strife
And suffering, hell, and all its pain.

It blinds all sense of right and wrong,
Its hellish craving fires each nerve,
Till we, poor fools! from God's way swerve,
To join the lost, the stumbling throng.

What misery of quickened age,
Of sullened tho't, and deadened brain,
Of sickened heart, of life in vain,
And drowned hopes, it gives life's page!

What lust-dimmed eyes and labored breaths!
What shoulders stooped, what nerveless hands,
Are fostered at the stern commands
Of vicious, deadly cigarettes.

Of all the evils known to truth,
There's none that leaves a deeper trace,
Nor is more hard to hide, deface,
Than that which taints our lives in youth.

So, boys, whate'er you do, please shun
The deadly cigarette's first taste,
For all that follows in sure haste
In this, doth lie the harm that's done.
— *The Boy, March 15, 1902.*

Doctor's Daughter.—"This cookbook says that pie crust needs plenty of 'shortening.' Do you know what that means, pa?"

Old Doctor.—"It means lard."

D. D.—"But why is lard called 'shortening,' pa?"

O. D.—"Because it shortens life."

EDITORIAL.

BEEFSTEAK GOING HIGHER.

Just now the high price of meat is the subject of much discussion by the daily press, and many theories and opinions are being expressed regarding its cause; but whatever the cause, speaking of the situation entirely upon its own merits, the price of meat is not too high. Indeed, it ought to be higher. It takes eight pounds of corn to make a pound of beef, and when it is made, it is worth only as much as a third of a pound of corn, so that beef ought to sell at twenty-four times as much as corn, which, at the present selling price of corn, would be \$1.48 per pound.

Besides, a large share of the beef is diseased. The animals are diseased. The health commissioner of Chicago stated not long ago that if all the diseased animals were rejected, the price of beefsteak in Chicago would be one dollar a pound, and this would be none too high, for no one ought to eat diseased animals. The higher the price of beef becomes, the better the beef will be for the people; for the expense will lessen its consumption, and so compel the use of more wholesome foods, such as peas, beans, and lentils, and especially nuts. Every pound of the foods mentioned contains one fourth to one third its total weight of nitrogenous substance; that is, the same sort of food substance as is furnished by meat; whereas, beefsteak contains less than one fifth its weight of this same blood-making material. This shows clearly that meat is by no means the only blood-making food, nor is it the most important. One pound of peas or beans contains as much albuminous material as one and a half pounds of the best beefsteak.

The present high price of meats should lead men and women to think seriously of this subject, to study the chemical properties of foods and dietetics. Such an in-

vestigation will lead thousands to abolish dead animals altogether from their tables, and to take their food at first hand in the pure state in which it comes from the earth, rather than in the form of flesh, which represents food which has been polluted by passage through an animal body.

That animal food is less pure than vegetable food is clearly apparent when one observes the contrast between a stable and a garden. The one is reeking with filthy excrement and repulsive odors, while the other salutes the senses with the delightful fragrance and resplendent beauty of blossoms and fruitage.

A bushel of potatoes, a bag of corn or beans, or almost any wholesome vegetable food in its natural state, may remain for months in a storeroom or on the pantry shelf without giving the slightest offense, but a cow, sheep, rabbit, dog, or cat, if kept in one place for an equal length of time, would be deep in indescribable filth. That all animal tissues are a source of impurities which are constantly escaping into its surroundings, cannot be disputed. When man consumes beefsteak, he takes into his system, along with a small amount of food material which these substances supply, a considerable amount of excrement, which, at the time of the animal's death, had not yet found its way to the exterior. If the animal had lived a short time longer, some portion of the beefsteak would have found its way out in the form of fecal matters, urine, or some other excretory matter.

Beefsteak in the form of peas, beans, and lentils is absolutely pure, while the difference in cost is immensely in favor of the legumes. Aside from the albuminous elements, we have a great supply of other highly valuable food substances.

THE NEUROTIC CHILD.

WE have been asked to outline home treatment and diet for a girl of eleven, who has been cured of a threatened attack of St. Vitus's dance, but who has been left with a nervous twitching of the face, occurring irregularly.

This is a typical case, a representative of a larger and ever-growing class which is the fruit of our modern mode of life.

This little girl is a neurotic child, and, unless something is done, and done quickly, she is going to be a neurotic woman; that means that she is going to be subject to all sorts of nervous accidents and troubles during life, that her children will be more neurotic than she, and that in the course of two or three generations, the family will run out entirely.

The mother of such a child should go to work in earnest to build up a constitution for her. Everything should conform to the very highest standard of health. She must be dressed properly. It would be a wise plan to let her put on a regular gymnasium suit, so that she may be entirely free from the trammels of long skirts, then let her run out of doors, and grow up like a boy; let her go to the woods, and romp with the squirrels and chipmunks. She should also be taught to swim and run. I would advise that such a child be moved to a Southern climate if possible; not the debilitating climate of Cuba, but such a climate as that of Texas, Mexico, or southern Colorado. An altitude of about two thousand feet would generally be the best.

With the general conditions properly arranged, careful attention must be given to the food. The child should be placed upon an absolutely nonstimulating dietary. It is positively known that the use of flesh foods, tea, and coffee tends to produce nervous disorders. Flesh food, particularly, tends to produce spasmodic disorders. I was recently talking with a doctor who has charge of a large institution, with nearly a hundred epileptics and feeble-minded children under his care. I asked him what was his observation in

regard to the use of meat in epileptics. "Why," he said, "my observation is, that it increases the spasms of the patients greatly, and we don't allow them to eat meat at all; we find that pork is particularly bad." The doctor in charge of the insane asylum at Kalamazoo, Mich., had thirty of these patients; he gave them a nonflesh dietary, and he said that for three months the number of convulsions was just one half what it had been with a meat diet, no other changes being made in the treatment. The same thing is true in reference to these involuntary movements known as St. Vitus's dance. We have the same tendency in people who do not have either epilepsy or St. Vitus's dance; the use of flesh foods produces a neuropathic tendency, and the tendency to a lack of self-control, and to the use of tobacco and alcohol,—in fact, I may say, a lack of balance. So this little girl should not eat meat, nor use any kind of stimulants. She should live upon very easily digested food,—food that will make fat and blood, so that the body will be kept up to the highest possible state of existence.

In addition to this well-regulated diet and exercise, she should have a neutral bath at a temperature of 94° to 95°, three nights in a week, for half an hour, and every day of her life she should have a tonic bath at a temperature of about 75° to 80°. She should never take very cold baths till she is about eighteen to twenty years of age; while she is a little girl, the temperature of the bath should be only about 75°. She should not swim in very cold water. In all her education, health should be the first thought, the prime motive; her book education may be neglected, but her education for health must not be. She should be taught to read books that are not exciting but quieting in their nature. She should not go to circuses, or theaters, or any exciting place of amusement. She should study botany and zoology, and become an enthusiast in specimen collecting,—something that will take her outdoors a great deal.

PRECAUTIONS IN SCARLET FEVER.

IN the first place, precautions should be taken against other children; isolate the patient completely,— quarantine him against every one except his nurse,— and he ought to have two nurses, one for the day and one for the night, and no one else should go near him except the doctor. There should be no communication between the sick room and the other rooms in the house, for scarlet fever is very tenacious, and it is very difficult to prevent the extension of the disease, unless every precaution is taken. Then, in reference to the person who takes care of the patient: In the first place, he should dismiss fear; for the person who is afraid of taking a disease is much more likely to take it than one who is not afraid. It is quite possible for one to protect himself against germs, by placing a cotton handkerchief over his nose and mouth; but one should remember, after using it in this way, that the handkerchief is infected, and it should be burned. The hands and the hair should be cleansed, and one should take great pains that no portion of the body which has been exposed comes in contact with the mouth or the respiratory organs. The clothing should also be changed.

Then there are some precautions to be taken with reference to the patient. The most contagious point of the disease is at the time when the skin is peeling off,— desquamation, as it is called,— for this contains the germs of the disease. At this

time the patient should take soda baths,— a pint of soda to fifteen or twenty gallons of water,— or a sponging in a solution in the proportion of a tablespoonful of soda to a gallon of water. It will be better if a little carbolic acid is added,— a dram to a pint of water. A teaspoonful of hydrate of naphthalin to a gallon of water is a good disinfectant.

Some of the most serious conditions of the *sequelae* are those affecting the throat and ear. The swelling of the tonsils in the throat and the introduction of other germs and the extension of the disease from the throat to the ear is one of the most serious causes of suffering and of permanent damage resulting from scarlet fever. This can probably be prevented. Dr. J. Lawrence Smith suggests that when a child is taken with scarlet fever, the attendant should at once use a spray of peroxide of hydrogen, and continue to use it every three or four hours, cleansing the mouth and throat thoroughly. It is the best of all germicides. You will see the foam rising, which indicates the destruction of germs by the peroxide. The use of peroxide of hydrogen is an excellent protection in case of an exposure to diphtheria. Spraying the throat with it would prevent the contraction of the disease, as the germs would be destroyed as soon as received into the throat, or before they had obtained a very firm foothold. A little preventive is worth a great deal of cure.

DISCHARGE FROM THE EAR.

FEW persons are aware of the fact that a chronic discharge from the ear is usually indicative of a condition of disease which may at any time develop into a fatal illness. In chronic inflammation of the middle ear, the parts affected are separated only by a very thin bony partition from the brain itself, and it requires only a slight extension of the disease to involve the membranes of the brain. On one occasion

the writer was called to see a patient suffering from suppuration of the ear, who had a few days before been seized with a terrific pain in the head, which nothing would relieve. Investigation gave convincing evidence that an abscess had formed within the skull, and a quantity of pus amounting to nearly two ounces was removed.

The danger attending chronic ear discharge is well recognized by medical men,

and also by life-insurance companies, who refuse to insure the lives of persons suffering from such a condition.

Treatment.—Nothing further need be said to emphasize the necessity for the proper treatment of this condition. In its acute form the discharge is generally accompanied by severe pain. For the relief of this pain, the application of heat in some form is a most valuable measure. Either dry or moist heat may be used. The ear douche is a remedy of great value. Another remedy of value is a mixture of olive oil and chloroform, seven parts of the oil to one of chloroform. This should be thoroughly mixed, kept in a closely stoppered bottle to prevent evaporation of the chloroform, and applied warm. The bottle may be warmed by holding it for three or four minutes in water at a temperature as hot as the hand can bear, then making the application. This mixture should be poured into the ear, and allowed to remain for ten or fifteen minutes. Repeat the application several times daily.

The suppuration is due to germs. The activity and growth of these germs are lessened by the presence of chloroform.

Another remedy of value in acute discharges from the ear, as well as in chronic cases, is boracic acid in the form of dry powder. The boracic acid should be carefully introduced into the ear by means of a toothpick around the end of which a bit of absorbent cotton has been wrapped. The ear should be first washed out and carefully dried before the boracic acid is applied.

In case of chronic discharge, the ear canal should be packed as full as possible with boracic acid, which should be allowed to remain until it softens, which usually occurs within two or three days. It should then be washed out, and a fresh application made.

The writer has frequently cured cases of chronic ear discharge of fifteen or twenty years' standing, by a few applications of this sort, the value of which seems not to be generally appreciated by physicians, and entirely unknown to the majority of people.

ANSWERS TO CORRESPONDENTS.

Konut.—E. S., Nebraska, asks if konut or nut-coa is healthful, and if it is made entirely from cocoanut.

Ans.—We have had no personal experience in the use of this article, and know nothing except what the manufacturers say about it.

Stomach Trouble.—A. B., New York: "1. I am a student, twenty-one years old. My appetite is good, but I use a very spare diet, principally nuts, fruits, and zwieback. Cane sugar causes sour stomach. For four years have weighed less than one hundred pounds, stripped, and am over five and one-half feet tall. Have intense thirst after eating, the mouth being sometimes almost dry. At other times (when the stomach is empty) I am greatly annoyed by salivation. Is there a remedy for this? 2. A slight increase in the quantity of food causes a feeling of weight and fullness in the abdomen. I am weak, and lack energy. Can I be cured? How? 3. I eat two meals a day—at 5:30 and 12:30. Would not a cup of malted nuts be beneficial at supper time? 4. Is cottage cheese allowable in such a case?"

Ans.—1. Take a very short cold bath every morning. Wear a moist abdominal bandage at night.

2. You ought to be cured by attention to general health culture, continuing your simple dietary.

3. No, but if insisted upon, a little raw ripe fruit or stewed fruit without cane sugar.

4. You may be able to digest cottage cheese, but very likely milk in any other form will be found disturbing.

Constipation — Catarrh — Taking Cold — Nuts — Beans — Hemorrhage of Bowels.—

I. M., New Hampshire: "1. Is flushing of the colon for constipation injurious? 2. If so, why? 3. Do you approve of Dr. Forest's massage rollers for constipation? 4. Is the vaseline spray, containing oil of eucalyptus, menthol, etc., especially curative in catarrh? 5. What diet and general treatment do you prescribe for catarrh? 6. Must remedies be employed to kill the germs? 7. How can one avoid taking cold, especially across the shoulders and in the back? 8. Would rubbing with salt after a bath help? 9. Is the cold bath as beneficial at bedtime as on rising, when one must be in a cold room mornings? 10. Do I need more fat in my system to ward off colds? 11. How can nuts be cooked to be both palatable and digestible? 12. Also beans? 13. What diet and treatment are best in hemorrhage of the stomach? The pu-

tient's general health is very poor: sick headache, face, neck, and hands brown with white spots; poor appetite; weak kidneys; piles; palpitation of the heart; weak lungs; perspiration offensive; a scrofulous swelling under the arm, growing slowly; patient too weak to stand cold bathing.

Ans.—1. Constipation is not likely to be cured by this means.

2. For the reason that the bowel becomes accustomed to this form of stimulation the same as to the stimulation of a laxative, and will refuse to act without it. If the enema is used to relieve the bowels, it should be graduated, the quantity being made less each day, and the temperature lower, beginning with 75° and lowering one or two degrees daily until it can be dispensed with. When warm water is used, the colon is relaxed and dilated.

3. Some benefit may be derived from their use.

4. It is not a curative, only a cleansing, agent. The cure must be effected by a correct diet and the building up of the general resistance.

5. Catarrh is a local indication of general lowering of the vital resistance.

6. Remedies, such as those mentioned above, are beneficial. If they do not kill the germs, they discourage their development.

7. An abundance of outdoor exercise, daily cold bathing, and proper clothing.

8. Yes.

9. The morning is the best time for the cold bath, but it is better to take it at night than not at all.

10. If you are losing flesh, the addition of half an ounce of fat a day to your dietary may be beneficial.

11. Peanuts may be cooked the same as beans, only they require longer cooking, and must be parboiled. Chestnuts may be boiled or roasted. Other nuts require no other preparation than simply crushing to a paste after removal of the skins, or blanching.

12. Beans may be first parboiled, and then baked in an oven. The addition of one fourth the quantity of peanuts will be found beneficial. They should be baked eight or ten hours; longer would be better.

13. Keep the patient still. Apply icebag over the stomach, and heat to the feet and legs to stop hemorrhage. Withhold food from the stomach for a week or ten days. Give four ounces of malt hney and two eggs well beaten three or four times a day. Malted nuts may be used instead of malt honey. Cold mitten friction should be applied two or three times a day. Apply heating compress over the scrofulous swelling. If the case is a serious one, a physician should be employed.

To Eliminate Nicotine from the System — Freckles.—J. G. T., Kentucky: "1. What is the best home remedy for ridding the system of nicotine? 2. What will remove freckles from the hands?"

Ans.—1. Take a wet-sheet pack for an hour and a half daily. Precede and follow by copious water drinking to the amount of three or four pints daily. Live on a fruit diet for three or four days. After the pack, employ the wet-sheet or cold towel rub-

2. There is no reliable remedy. If due to exposure of the skin to the sun, the hands may be protected by gloves. It is better to have brown or freckled hands than to forego the exposure of the hands to the sun and air. The same might be said of the whole surface of the body.

Dandruff — Fruit Cocoa — Breakfast Cocoa — Dentifrice — Enema.—G. H. K., California: "Please give a remedy for dandruff and falling hair? 2. Which is better, fruit cocoa or postum food coffee? 3. Do you recommend breakfast cocoa? 4. Do you sell Death to Germs dentifrice? 5. How much water should one use for an enema? 6. How often should an enema be employed?"

Ans.—1. The scalp should be thoroughly treated with an antiseptic lotion, bathing with cold water, and gentle friction twice daily. The following lotion will be found good; alcohol, three ounces; resorcin, one ounce; castor oil, ten drops.

2. We have never had any experience in the use of postum cereal.

3. No.

4. No.

5. Two or three pints at first, decreasing the quantity each day. It is not necessary, however, to take an enema every day when employed for constipation.

6. The enema should be administered only every other day, as naturally only half of the colon is emptied each day.

Dilatation of Stomach — Torpid Liver — Prolapsed Stomach.—F. J. K., South Dakota, asks: "1. Are granose, granola, zwieback, bromose, whole-wheat wafers, soft-boiled eggs, and buttermilk a proper diet in dilatation of the stomach? 2. In catarrh of the stomach and bowels? 3. When the foregoing forms the exclusive diet, how much of each should be used daily? 4. What causes a choking sensation when one is sitting? 5. What are the symptoms of torpid liver? 6. Why should one feel every heart beat in the head and teeth? 7. What are the symptoms of a prolapsed stomach?"

Ans.—1. Yes, but the buttermilk should be taken by itself, and not with the other foods, as liquids and cereal foods are a bad combination in dilatation of the stomach.

2. Yes.

3. See "Balanced Bills of Fare." Sold by Good Health Pub. Co., Battle Creek, Mich., for five cents.

4. A spasmodic contraction of the esophagus.

5. So-called biliousness, but the trouble is not with the liver but with the stomach.

6. There is evidently a disturbance of the sympathetic nerves.

7. The symptoms given above are often associated with a prolapsed stomach.

Exophthalmic Goiter.—Mrs. L. A. asks: "Is exophthalmic goiter a serious disease? 2. Is faradic electricity beneficial? 3. How should it be applied? 4. What baths should be taken? 5. What is the best diet?"

Ans.—1. Yes.

2. Generally not.

3. If valuable at all, only as general tonic, applied in what is known as general faradization.

4. The patient should rest in bed, and have carefully graduated treatment in the form of cold mitten frictions and cold towel rubs. Light massage may also be administered.

5. An aseptic dietary consisting of easily digestible preparations of fruits, grains, and nuts. No meats. Cream if it agrees with the stomach. Condiments, tea, and coffee should be entirely discarded. Patient should be under the care of a competent physician.

Small Growth on the Skin.—A. C. A., Illinois: "1. What causes white spots to grow on the face? They grow gradually, some being half an inch across. 2. What will remove them?"

Ans.—1. This is a peculiar form of nervous disease.

2. Nothing. It is incurable.

To Prevent Accumulation of Uric Acid in the System.—Mrs. B. H., Michigan, asks what foods should be avoided as tending to produce too much acid in the urine.

Ans.—Flesh foods of all kinds; also excess of eggs and of any highly nitrogenous foods; even nuts may be used in excess. Fruits, even acid fruits, are beneficial.

Rectal Alimentation — Heart.—F. J. K., South Dakota: "1. What syringe do you recommend for rectal alimentation? 2. Where can it be obtained? 3. Why should the whole body tremble at every heart beat?"

Ans.—1. A small rubber tube two or three feet long, with a funnel, is the best instrument for this purpose.

2. To be obtained almost anywhere, or can be improvised.

3. Evidently an excited condition of the heart. Apply ice bag over the heart.

Printer's Work Unhealthful — Type Dust.—W. N., Minnesota: "1. Is typesetting and general printing-office work injurious to one with catarrh? 2. Is the dust from type poisonous?"

Ans.—1. It is a very sedentary employment, and requires a strong constitution to endure it for many years. A person so engaged should take daily one or two hours' vigorous exercise out of doors, walking, bicycle riding, working in the soil, horseback riding, swimming, and similar exercise. The exercise should be vigorous enough to induce perspiration. He should take a cold bath daily, and must adhere to a very simple dietary.

2. Yes, but the danger of this sort is not so great as that from the sedentary life and wrong habits of eating.

Dry Taste in Mouth.—F. E. F., New York, asks the cause of, name, and cure for a dry and bitter taste in the mouth.

Ans.—The probable cause is sleeping with the mouth open. Deficient action of the salivary glands is also a probable cause.

Catarrh — Stomach Trouble — Constipation.—Miss A. V., Nebraska: "I have been troubled with catarrh ever since I was twelve or fourteen years old. It first troubled my head; now it has gone to throat and stomach. Have been constipated for several years, and it has now taken the form of bleeding piles. Gain movement only when enema is used. Kindly prescribe treatment and diet."

Ans.—You need three or four months of health culture at a well-equipped sanitarium. You will find such an institution at College View, a suburb of Lincoln, Neb. Address Dr. W. A. George, Supt. Daily cold bathing and the use of the pocket vaporizer will be beneficial for the catarrh. For the constipation and piles, a cool rubbing sitz bath will afford most relief. Possibly you require an operation. Granose flakes and biscuits, toasted wheat flakes, fruits, and a moderate allowance of nut products constitute the best dietary.

Pain in Stomach.—I. C. S., Kansas, writes as follows: "A man, about four hours after eating, has a severe pain in the stomach, especially while hard at work, which is immediately relieved by eating. Riding or jolting causes nausea and fainting, quite often a chill. Appetite poor in morning, lives on common diet, uses tobacco and coffee. Please give name of, and treatment for, trouble."

Ans.—The man should stop the use of coffee and tobacco. There is probably an affection of the sympathetic nervous system, arising from indigestion and the use of tea, coffee, and tobacco. The causes should be removed by simple dietary and the disuse of condiments and irritating substances of all sorts.

Apply a fomentation or hot-water bag over the stomach for half an hour, one or two hours after each meal. Every night and morning, a fomentation may be applied over the stomach, with advantage, and a moist abdominal bandage should be worn at night, well covered with flannel, but not with mackintosh.

Rheumatism.—C. H. A., Iowa, wishes to know the cause and cure of rheumatism.

Ans.—Uric acid, the result of meat eating, overeating, and a sedentary life. Cure is to be found in removing the causes. Take an abundance of out-of-door exercise. Sweating baths two or three times a week, followed by cool tonic baths, may be advantageously employed.

Intermittent Heart Beats — Backache — Cold Baths — Puffed Veins.—A. A.: "1. What is the cause of intermittent beating of the heart, occurring sometimes once in five, sometimes once in ten or twenty, pulsations? Am sixty-five years old, and have had stomach trouble for two years. Weight is thirty pounds less than normal. Am troubled with pain and soreness of back, in line with the lower rib, after exercise; especially after lifting or after a prolonged walk. Give cause and treatment. 2. Should cold baths be omitted when nose bleeding occurs frequently at beginning of bath? 3. Give cause of, and treatment for, constant micturition between 9 P. M. and 6 A. M. If delayed, a severe pain is felt between the top of hips and the ribs on right side, a little in front toward abdomen.

Ans.—1. Doubtless the patient is suffering from indigestion, irritation of the solar plexus, weak heart, irritation of the bladder, and general debility.

2. Cold baths are contraindicated. Neutral baths may be taken with advantage, temperature 92° to 96° F., for ten or fifteen minutes.

3. For the frequent micturition, before retiring at night take a sitz bath at 98° F., for twenty to thirty minutes.

Oatmeal — Gas — Fruit Soups — Butter and Pork — Knives and Forks.—J. D., Iowa: "1. What is the proper way to cook oatmeal? 2. Why do the simplest foods sometimes cause gas in the stomach? Is it natural or healthful for gas to form in the digestive canal? 3. Are fruit soups healthful and easily digested? 4. If butter and pork are not fit for food, of what use are hogs and cows to man? 7. Are knives and forks relics of barbarism?"

Ans.—1. It should be made into cakes, and baked in an oven until slightly browned. Mush of all sorts is objectionable.

2. Mushes are very likely to form gas in the stomach. The gas is formed by the fermentation

of starch which has been imperfectly cooked. Starch must be cooked by dry heat at a temperature of 280° to 300° F. until slightly browned, in order to render it easily digestible. Some gas is always found present in the alimentary canal. It is normally secreted from the blood, and need not necessarily arise from fermentation.

3. Yes.

4. Pigs are natural scavengers, and should be allowed to attend to their legitimate business. Butter is not unwholesome if eaten before it is churned, in the form of cream, though it is not essential to the human dietary. There are many animals of which man makes no particular use, and could get along without as far as he is personally concerned; for example: snakes, toads, sharks, owls, and turkey buzzards.

7. No. They are rather the products of civilization. Barbarians eat with their fingers.

Varicose Veins — Nasal Catarrh.—J. K., California, drives a milk wagon, and does a great deal of running and jumping. "1. Is this necessarily injurious to one troubled with varicose veins? Kindly prescribe treatment for latter. Would elastic stockings, wet packs, vigorous rubbing upward, or prolonged fast be at all beneficial? 2. Just what must he particularly avoid doing? 3. Please give a sure cure for nasal catarrh. What vaporizer do you recommend? 4. What is an 'aseptic dietary'? 5. How is a wet pack applied?"

Ans.—1. Much exercise is harmful to a person suffering from varicose veins. Stockings are also harmful. Gentle rubbing in an upward direction and prolonged cold applications are beneficial. Hot baths or wet packs left on long enough to become warm should both be avoided. A fast is not likely to be of any benefit unless there is disturbance of the digestion, in which case it might be found beneficial to live for two or three days on a fruit diet.

2. Prolonged exercise on the feet would be especially injurious.

3. There is no sure cure for nasal catarrh. Persons suffering in this way should build up the general health, and keep the nose clean. The pocket vaporizer, sold by the Modern Medicine Company, Battle Creek, Mich., is as good as any. A dietary free from meat and cheese is indicated.

5. See Home Hand-Book, page 671.

Sterilized Cream—Raw Eggs—Thermometer — Dyspepsia.—G. E. T., South Dakota: "1. Is it better for all general purposes to sterilize milk and cream by putting them through a separator such as De Lorde's? What is the highest temperature necessary to sterilize butter, milk, and

cream? 2. Is sterilized cream proper food in cases of weak digestion? 3. Are eggs best taken raw? 4. Have you a thermometer especially adapted to cooking purposes and bathing? 5. I am using your health foods, yet sometimes about an hour after meals have a sensation of 'lumpiness' in the stomach. Kindly prescribe."

Ans.—1. We are not familiar with the form of separator mentioned. The separator is undoubtedly preferable to the old method of separating the cream from the milk. Cream cannot be completely sterilized at a temperature below 240° F., but heating to a temperature of 160° F. will kill the germs of tuberculosis, typhoid fever, and cholera, and most other disease germs, except the manure germ, or colon bacillus, which requires a higher temperature. To kill this germ, milk must be sterilized by heating to a temperature of 160° for thirty minutes for three successive days.

2. Milk in any form disagrees with the greater proportion of persons suffering from indigestion. The indications are coated tongue, headache, constipation.

3. No.

4. An oven thermometer can be obtained from any good hardware dealer. A bath thermometer can be obtained from any druggist.

5. Fomentations over the stomach at bedtime, followed by heating compress to be worn overnight, will be found beneficial. A hot pack over the stomach for an hour or an hour and a half after eating will relieve the discomfort. Breathing exercises will be found beneficial.

Chronic Pleurisy.—A. R. S., Michigan: "Three years ago had an attack of pleurisy; since then am troubled with swelling in the legs between the ankles and knees. Kindly give cause and treatment. I am twenty-seven years of age."

Ans.—It is possible that you had an endocarditis, or inflammation of the heart, at the same time you had pleurisy. It is very likely the cause of swelling of the ankles. You should have an examination of the heart by a competent physician.

Cheese.—N. P. E., Massachusetts: "I am a young man with strong stomach; enjoy eating cheese very much. Do you disapprove of its use?"

Ans.—Cheese is simply rotten milk. It is absolutely unfit to enter the human stomach. It is good food for rats, turkey buzzards, and other scavengers.

LISTERINE

To Promote and Maintain Personal Hygiene.

COMPOSED of ozoniferous essences, vegetable antiseptics and benzo-boracic acid, Listerine is readily miscible with water in any proportion, and is the ideal individual prophylactic. A teaspoonful of Listerine in a tumbler of water makes a refreshing and delightfully fragrant mouth wash. Used at the morning toilet it effectively removes all agglutinated mucus which may have accumulated during the hours of rest.

As a spray or gargle in tonsillitis, diphtheria, or scarlet fever, both for the patient and as a prophylactic for those who are in attendance, Listerine, diluted with four parts of water, or water and glycerine, is a pleasant and sufficiently powerful agent.

Listerine has won an enviable position in medical practice in the treatment of catarrhal conditions of the mucous surfaces of every locality and is extensively used in the lying-in room. As a prophylactic and restorative douche or injection after parturition, an ounce or two of Listerine in a quart of warm water is generally all-sufficient.

The vapor evolved by the use of Listerine in the sick room, by means of a spray or saturated cloths hung about, is actively ozonifying, imparting an agreeable odor to the atmosphere and proving very refreshing to the patient.

An ounce of Listerine in a pint of warm water forms a refreshing, purifying, and protective application for sponging the body during illness or health. A few ounces added to the bath enhances its tonicity and refreshing effect.

Two interesting pamphlets on Dental and General Hygiene, upon request.

Lambert Pharmacal Co., St. Louis.

Be assured of genuine Listerine by purchasing an original package.

LITERARY NOTICES.

Success has no sympathy with pessimism, as its pages show, but flings far and wide the essence of optimism, which, in a large measure, is responsible for its spirit-stirring qualities. The May number contains some important articles showing the upward trend of the world. The opening article is by Rebecca Harding Davis, and is entitled "The Return to the Soil." It is a strong plea to those who are obliged to live in the city, to seek some communion with nature, in order to find new life and new interest in the world. Israel Zangwill, in "What Have the Hebrews Accomplished?" has clearly defined the distinctive qualities that have made a powerful race; Ellen Terry, the great English actress, gives some well-earned advice to stage-struck girls in a valuable paper entitled "An American Girl's Possibilities as an Actress;" Frank Hix Fayant describes the practical process of making electrical engineers at one of our largest electrical works; Charles Dana Gibson, the eminent artist, tells the budding illustrator how best to follow the road that will bring him recognition, and Robert C. Ogden, who is John Wanamaker's chief partner, tells the interesting story of his life from the time he was an errand boy. Mary Lowe Dickinson, in the first of the *Success* series on Home Culture, writes interestingly and thoroughly on the value of love in the home; and Jonathan Bartlett, in an article that will be of value to every farmer in the land, tells how he transformed an abandoned farm in New England into a paying property. Professor Charles F. Thwing contributes an article that should be read by every college man in the country. It is entitled "Should a College Student Be a Student?"

The Missionary Review of the World for May is marked by variety, interest, and strength. First there is a scriptural exposition by Dr. Pierson, the editor-in-chief, on "The Divine Link between Prophecy and Missions." A very practical and forceful article is contributed by Robert E. Speer, on the "Resources of the Christian Church for the Evangelization of the World." More popular, but none the less valuable, are Wherahiko Rawei's article on the "Maoris of New Zealand," Dr. C. H. Denman's "Doctors and Demons among the Laos," Bishop Warren's "The Struggle for Liberty in South America," and Dr. J. C. Young's description of his recent "Visit to Hodeidah, Arabia." Three articles on China, two on John R. Mott's Visitation of Asia, and his impressions of the situation there, and three very excellent contributions on "African Life and Missions" make

up a part of this attractive number of the *Review*. The Intelligence Department is a missionary newspaper in itself.

No impure, adulterated, or sophisticated food product is admitted to the advertising columns of **Good Housekeeping**. The May issue contains two articles well worth reading by every one interested in the Pure Food Campaign. And who is not? The articles are "The Baking Powder That Went to Sea," and "Truthful Labels on Food Products." **Good Housekeeping** is doing its duty in the forefront of the battle for the nation's health.

Prof. W. S. Scarborough pleads, in the May **Forum**, for greater interest in the higher education of the negro race. While not minimizing the importance of industrial training, he maintains that there is need for opportunities of academic instruction also, if the negro is to play a worthy part in the development of America.

A notable article on "Taxation and Business in Italy" is from the pen of Dr. Wolcott Calkins. In view of the large number of Italians migrating to America, both North and South, his account of the social and financial conditions which provoke this exodus will be read with special interest.

Mr. Henry Gannett's estimate of "Our Industrial Position in the World" is a striking testimony to American commercial progress. He shows, in detail, the percentage contributed by this country to the world's product in various departments of agriculture and manufacture.

"Our Public Untidiness" is a topic with which Prof. A. D. F. Hamlin deals. He finds in the history of our national development an explanation of past indifference to the virtue of neatness, but urges that the time has come when we should free ourselves from the reproach of being "the most untidy among all the great nations of the world."

WHEN Martha Bulloch, the fair daughter of a wealthy Georgia planter, married Theodore Roosevelt half a century ago, she little dreamed that her name would be handed down as the mother of a president. The pretty romance of her meeting with the New York man, their courtship and marriage, and the long honeymoon journey in a stage-coach, forms a new and interesting chapter in connection with the life of the present Theodore Roosevelt. In the June number of **The Ladies' Home Journal** this romance and many unknown facts concerning the President's mother are told by a cousin of Martha Bulloch.

PUBLISHERS' DEPARTMENT.

GOOD HEALTH

A JOURNAL OF HYGIENE

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

Subscription Price, \$1.00 a year
Single Copies, 10 cents

Published Monthly by

GOOD HEALTH PUB. CO.

303 West Main Street

Battle Creek - - Michigan

FOURTEEN STOMACHS.

THE woodchuck has fourteen stomachs. Man has but one stomach; hence he gets into trouble when he undertakes to live upon a promiscuous diet. Even dogs get rheumatism when fed upon such a diet, as was recently shown by a well-known German physiologist. Man's stomach is less vigorous than a dog's; and if a dog becomes infirm and rheumatic at the end of ten years, it is no wonder that his master collapses after living upon the same diet for a score or more of years. An unnatural and vicious diet is the bane of the life of the average man. The thing needed is a natural food. Such food is furnished by the Battle Creek Sani-

tarium Health Food Co. Try their products for a few weeks, and see how rapidly gastric disorders and discomforts disappear. They are invaluable to dyspeptics and invalids.

MY MOTHER'S LIFE.

SUBSCRIBERS to GOOD HEALTH will be glad to know that the publishers have on hand four hundred copies of that instructive and interesting volume, "My Mother's Life." It can be had at the old-time price. Those desiring copies should send in at once, as orders for the book are coming in all the time. First come, first served.

"My Mother's Life" is the biographical autobiography of Mrs. S. M. I. Henry, who is well known to our readers both as a writer and speaker. The autobiographical part of this book is more fascinating than romance. It is not at all what you would expect from an evangelist and reformer—until you have read it—then it is exactly what you would expect.

One could not have a better companion on the holiday trip than this book. Interesting to the old; fascinating to the young. "My Mother's Life" and GOOD HEALTH for one year for \$1.65. Address Good Health Pub. Co., Battle Creek, Mich.



To Prevent Bursting of H. O. Solution Bottles Automatic Safety Valve Stopper

Patented by Charles Marchand

NO WIRE NO BURSTING
NO LOUD POPPING

Refer to National Druggist, of St. Louis,
Mo., April, 1901

Hydrozone

(Yields 30 times its own volume of active oxygen—
near to the condition of "OZONE")

Harmless, Powerful Bactericide and Pus Destroyer

Glycozone

(C. P. Glycerine com-
bined with ozone)

Harmless and Most Powerful Healing Agent

Successfully used in the treatment of DISEASES OF THE NOSE, THROAT, CHEST AND MOUTH.—INFLAMMATORY AND CONTAGIOUS DISEASES OF THE ALIMENTARY CANAL.—DISEASES OF THE GENITO-URINARY ORGANS. WOMEN'S DISEASES.—OPEN SORES.—PULULENT DISEASES OF THE EAR.—SKIN DISEASES, Etc.

Marchand's Eye Balsam cures quickly all inflammatory and contagious diseases of the eyes.

Send for free 310-page book, 16th edition—"Rational Treatment of Diseases Characterized by the Presence of Pathogenic Germs"—containing 160 clinical reports by leading contributors to medical literature.

Physicians remitting 50 cents will receive, express charges prepaid, one complimentary sample of each, "Hydrozone" and "Glycozone."

HYDROZONE is put up only in extra small, small, medium and large size bottles bearing a red label, white letters, gold and blue border, with my signature.

GLYCOZONE is put up only in 4-oz., 8-oz. and 16-oz. bottles bearing a yellow label, red and blue border, with my signature.



PREPARED ONLY BY

Charles Marchand

Chemist and Graduate of the "Ecole Centrale des Arts et Manufactures de Paris" (France)

57-59 PRINCE STREET, NEW YORK

Sold by Leading Druggists Avoid Imitations
Mention this Publication

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

THE Chairman of the Committee of Arrangements for the twenty-eighth Annual Meeting of the Mississippi Valley Medical Association, Dr. A. H. Cordier, has announced the dates of the next meeting in Kansas City, Mo., as October 15, 16, 17, 1902.

The President, Dr. S. P. Collings, of Hot Springs, Ark., has announced the orators for the meeting: Dr. C. B. Parker, of Cleveland, O., to deliver the address in Surgery, and Dr. Hugh T. Patrick, of Chicago, the address in Medicine, selections which will meet with the approval of every physician in the Mississippi Valley.

A cordial invitation is extended to every physician in the United States, but especially of the Valley, to attend this meeting, and to take part in its proceedings. Titles of papers should be sent to the Secretary, Dr. Henry Enos Tuley, 111 W. Kentucky St., Louisville, Ky., at as early a date as possible to obtain a favorable place on the program.

THE LIFEBOAT.

**A Monthly Illustrated 24-page Magazine,
Devoted to the Interests of City Mission
Work.**

EDITORS: DAVID PAULSON, M. D.; W. S. SADLER.

The *Life Boat* was established in 1898, with a circulation of five hundred. It has now a regular circulation of nearly twenty thousand. Each number describes the never-to-be-forgotten scenes with which the city mission worker is constantly brought face to face in his earnest efforts to better the condition of down-trodden humanity in our large cities.

The phenomenal growth in the circulation of the *Life Boat* is due to the fact that it is the earnest endeavor of the editors to make this journal a true reflector of the work with which it is so intimately connected. The *Life Boat* not only describes the practical methods whereby the helpless are being helped, but it also relates the wonderful Miracle of Grace, which is constantly transforming in a marvelous manner so many lives.

Several special numbers are issued each year, giving special attention to the needs of particular classes. The April *Life Boat* was a prisoners' number. A sufficiently large edition was printed to place it in the hands of every prisoner who desires a copy, in each of our State prisons.

If you have never seen the *Life Boat*, do not fail to send a stamp for a sample copy of this special prisoners' number, or twenty-five cents for an entire year's subscription. Address, THE LIFE BOAT, 28 Thirty-Third Place, Chicago.

THE GOOD HEALTH ADJUSTABLE WAIST.

THE Good Health Adjustable Waist has a number of distinct advantages. It was cut by an entirely new method of measurements, and is made to fit the exact proportions of the natural form. In the construction of this waist the principle is recognized that the front of the body from the chest down over the abdomen demands room for expansion, as with every full inspiration the medium form expands about four inches.

An adjustable feature is the shoulder strap, which can be changed to make the bust fit more or less closely, and to lengthen or shorten the waist.

This waist may end at the waist line or cover the hips, according to the figure and the preference of the wearer.

ANN ARBOR, MICH., May 6, 1902.

GOOD HEALTH PUBLISHING CO.,
Battle Creek, Mich.

Gentlemen:—

I have received the waist you so kindly sent me, and I am glad to be able to give it my cordial commendation. It is beautiful in material and workmanship and practical in construction, and must solve the corset problem for many an anxious woman.

Cordially yours,

MARY WOOD-ALLEN.

For fuller information, write the Good Health Pub. Co., 303 West Main St., Battle Creek, Mich.

YELLOWSTONE NATIONAL PARK.

ONE of the most delightful spots on the American continent, and more easily reached via Union Pacific than via any other line, is the Yellowstone National Park. The stage ride from Monida by the palatial Concord Coaches of the Monida & Yellowstone Stage Company, is through scenery hardly inferior to the Park itself.

Side trip from Ogden, Utah, or Pocatello, Idaho, via Monida, and Monida & Yellowstone Stage Co., in both directions, will be furnished holders of all tickets (one way first and second class, regular tourist, or special round-trip excursion tickets) sold at Denver, Cheyenne, and points east, passing through Ogden or Pocatello to points in the States of California, Nevada, Oregon, Washington, and that part of British Columbia lying north of the State of Washington, upon application to O. S. L. agents at either Ogden or Pocatello, at the very low rate of \$49.50.

This rate will include rail and stage fare covering seven and one-half days' trip, including all meals and lodging beyond Monida.

E. L. LOMAX, G. P. & T. A., OMAHA, NEB.

If Your Subscription
to

Good Health expires in June
or July,

PLEASE RENEW
AT ONCE.



ALL POINTS TO THE
Parker Lucky Curve
Fountain Pen

The famous **Lucky Curve**, Spring Lock,
Anti-Break Cap—all exclusive Parker features.
Insurance policy, covering possible breakage for
one year, free with each **Lucky Curve**.
A Beautiful Catalogue and a **Six-Inch Alumi-**
num Paper Cutter mailed on receipt of 4c. in
stamps, to any one wishing to purchase a fountain
pen who will give local fountain pen dealer's name.
PARKER PEN CO., 90 Mill Street, Janesville, Wis.

The Ideal Steam Cooker



Cooks a whole meal over one burner, on
gasoline, oil, gas, or common cook stove.
Reduces Fuel Bills One-half.
Makes tough meats tender. Prevents
steam and odors. Will hold 12 one-quart
jars in canning fruits. **Whistle blows**
when Cooker needs **more water.** Seam-
less copper bottom and sides. The
food is cooked under pressure by
steam generated from sterilized
water. We also make **Square Cookers**

with doors. Send for illustrated catalogue. *We pay express.*

The Housekeeper's Friend. Agents Wanted.
TOLEDO COOKER CO., Box 60, Toledo, O.



WILLIAMS'
PORTABLE FARADIC
BATTERIES

FOR HOME USE

- Improved Red Cross Battery \$4.00
 - Dry Cell 20th Century Battery 5.00
 - Double Dry Cell Perfection Battery 8.00
- Two sponge electrodes, foot-plate, etc., will be sent with each bat-
tery. Also a book giving full directions for applying the currents.

FOR PHYSICIANS and others, who desire an extra large and very
fine battery, we make **The Double Dry Cell Dial** Price, \$12.00
Battery

**A HIGH GRADE BATTERY AT THE RIGHT
PRICE**

NO ACIDS OR LIQUIDS

These Batteries are operated by dry cells of the very best quality.
They are neat, always ready for use, and operated at a very small cost,
as the cells will last several months. When exhausted, any person can
put new cells in the machine in a few seconds.

SENT FOR FREE INSPECTION

We will ship any of our Batteries, C. O. D., with privilege of ex-
amination, expressage prepaid, to any place in the United States.

Our catalogue G describes all our Faradic Batteries and instruments. Send for it.

PERCY G. WILLIAMS, Mfr.

**Office and Salesroom
8 BARCLAY ST., New York.**

In replying to advertisements please mention GOOD HEALTH.



TEN DAYS FREE TRIAL

allowed on every bicycle purchased of us. We ship on approval to any one in U. S. or Canada, without a cent deposit.

1902 Models, \$9 to \$15

1900 & '01 Models, best makes, \$7 to \$11

500 Second-hand Wheels

all makes and models, good as new, \$3 to \$8.

Great Factory Clearing Sale at half factory cost. Tires, equipment, & sundries, all kinds, 1/2 regular price.

RIDER AGENTS WANTED in every town to ride & exhibit sample 1902 model. Agents make money fast.

A BICYCLE FREE distributing catalogues in your town. Write at once for agents' not prices and our special offer.

MEAD CYCLE CO. Dept. 18 K. CHICAGO, ILL.

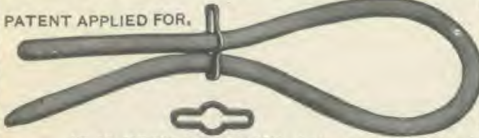
MILLER'S Sanitary Hotel

37 to 41 West Twenty-Sixth Street, New York City.

In the heart of the city, near the big stores, theaters, and churches. Nice single and double rooms; electric elevator; sanitary plumbing. Baths on every floor. Excellent table; health foods. A quiet, home-like place for ladies or families. Single rooms, \$2.00 to \$2.50 per day. Double rooms for two, \$4.00 to \$5.00 per day. Rooms without board, \$1.00 to \$2.00 per day. Address

Dr. E. P. MILLER, Prop.

PATENT APPLIED FOR.



THE BREWER TOURNIQUET

This Tourniquet is the product of Dr. Brewer, of New York City, and after repeated tests, has been pronounced by him and others to be the most reliable Tourniquet obtainable.

IT IS VERY POWERFUL, being made circular in form and of heavy Fine Para Rubber. With it circulation is promptly arrested, and with practically no damage to the tissues.

IT CAN BE MORE QUICKLY AND CLOSELY APPLIED than any other Tourniquet. This is because of the clamp used which, though very simple, is capable of promptly and securely holding the cord at any point desired.

THIS TOURNIQUET WILL NOT SLIP IN USE. The importance of this point cannot be overestimated, and will be readily appreciated by every practitioner.

THIS TOURNIQUET IS MORE EASILY RENDERED ASEPTIC than any other on the market because of its simplicity. Its every part, including the clamp, can be thoroughly cleansed, and it is stout enough to stand repeated boilings.

THIS TOURNIQUET FILLS A REAL NEED. It will have no spasmodic sale, but will confirm your reputation as a source of supply for reliable Surgical Goods.

To test our claims, we respectfully ask you to permit several of your most valued customers to pass upon the merits of the "Brewer Tourniquet."

WHY NOT STOCK THEM? B. F. GOODRICH & COMPANY, AKRON, OHIO.

UNDERWEAR for SPRING and SUMMER

Before investing in your spring and summer underwear, you owe it to yourself to investigate the claims of

Dr. DEIMEL'S LINEN-MESH UNDERWEAR.

Thousands of people have found it to be the most healthful, the most comfortable, and altogether the best clothing to be worn next to the skin.



Booklet about these garments free for the asking.

The Deimel Linen-Mesh Co.

491 Broadway, New York.



This Trade Mark on Every Garment.

SAN FRANCISCO, 6th floor, Hayward Bldg.

WASHINGTON, 728 15th St., N. W.

MONTREAL, 2202 St. Catherine St.

LONDON, 10-12 Bread St.



In one operation on your kitchen stove,

It Filters,
Purifies,
Sterilizes,
Destroys
the Germs
of Disease

and removes them, eliminates the poisonous gases, and aerates the water automatically.

Major-General Jos. Wheeler, U. S. A., writes:—

"The Sanitary Still is very satisfactory. It is useful and valuable."

The Sanitary Still is used in the White House.

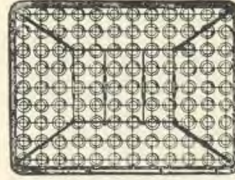
The Battle Creek Sanitarium Supply Department recommends and sells the Sanitary Still.

Highest award at the Paris Exposition. DURABILITY UNEQUALED. AVOID CHEAP AND FLIMSY STILLS.

Only Still recognized by the U. S. Government. Six styles: \$10.00 up. Send for catalogue and testimonials.

THE CUPRIGRAPH CO.,
156 N. Green St., Chicago, Ill.

THE 20th CENTURY SANITARY BED SPRING



Is a modern necessity. It does away with all iron hangers or slats, and is guaranteed not to sag.

It is the only self-supported spring with adjustable center manufactured. Attachments for holding center are anchored at each corner with a series of turn buckles for adjusting. Base of frame is made of angle steel.

Pat'd Apr 30 1901.
No. 672904.

IT IS EASY TO REST UPON

Write for full particulars and prices to-day. Buy direct from the manufacturers and get the best for little money.

TOLEDO SPRING AND MATTRESS CO.

519, 521, 523 Erie St., Toledo, Ohio

We also manufacture Electric Felt and Hair Mattresses, and make a specialty of Sanitarium and Hospital work.

YOU SHOULD BE PARTICULAR

About the flour you use. Flour enters more largely into the diet of the people than any other single article of food.

SEAL OF MINNESOTA FLOUR

Is made from wheat grown in the "Big Woods" region of Minnesota. For ages the soil in this region has been enriched by decaying leaves and vegetable matter. The flour made from this wheat is, therefore, particularly **rich in gluten, phosphates,** and the **health-giving, and life-sustaining qualities** now so generally sought after.

It is guaranteed to be **absolutely pure** and **free from all adulteration.**

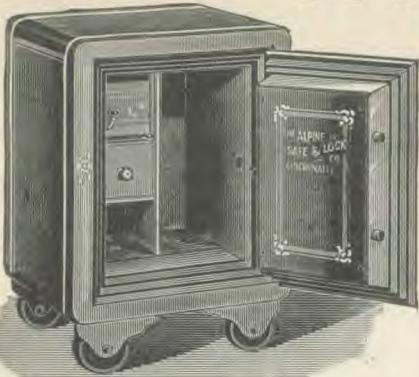
We want you to be particular about your flour. We want you to use a flour that is always **uniform in quality,** always **pure and wholesome,** always **guaranteed to make perfect bread** with ordinary care.

We want you to use

SEAL OF MINNESOTA FLOUR

Ask your grocer for it. If he does not keep it, write us, and we shall see that you are supplied.

NEW PRAGUE FLOURING MILL COMPANY, NEW PRAGUE, MINN.



FIRE and BURGLARS

Are no respecters of persons or things. No need to fear if you have one of our celebrated ALPINE SAFES in your business and home to protect your books, papers, valuables, etc. Cheapest and best.

AGENTS WANTED IN EVERY TOWN

Alpine Safe & Lock Co.
CINCINNATI, - - - OHIO

OUR SPECIALTIES.

ELASTIC STOCKINGS



FOR THE RELIEF AND CURE OF
**Varicose Veins,
Sprains, Etc.**

ABDOMINAL AND OBESITY

BELTS



ARTIFICIAL LIMBS, DEFORMITY APPARATUS,
TRUSSES, ETC.

Correspondence solicited.

SHARP & SMITH,

92 Wabash Ave.

CHICAGO.

Two doors north of Washington St.

The Marvelous Success

of the Chicago Typewriter (as yet unapproached by others as to value) has induced us to surpass all former efforts in producing

The Chicago No. 3

\$50



This machine is the concrete expression of the advanced knowledge of the world's master typewriter constructors, and absolutely excels in quality and lasting power any typewriter yet built — no matter what its reputation — no matter what its price.

It has been built regardless of material cost to exemplify the possibilities of advanced mechanics.

Send at once for information that has revolutionized typewriter prices

CHICAGO WRITING MACHINE CO.,
Wendell St., Chicago, Ill.



The Superior Quality of this Powder makes it one of the best for the treatment of —

Prickly Heat,
Nettle-rash,
Chafed Skin,
etc., etc.

It is an excellent remedy for PER-SPERING FEET and is especially adapted —

For Infants.

Delightful After Shaving.

Price, post-paid, 25c per box.

Agents Wanted.

THE UMSCHLAG OR WET ABDOMINAL GIRDLE

One of the most useful inventions of Dr. Priessnitz, the father of modern hydropathy, was the umschlag, or heating compress, as it is sometimes called by the Germans. There is no better remedy for indigestion, inactive bowels, or sleeplessness, than this simple measure, when properly applied. The umschlag consists of a properly-adjusted bandage, moistened and worn about the body at night, to be replaced by a dry bandage during the day.

Price, \$1.50 Postpaid
GOOD HEALTH PUBLISHING CO.
BATTLE CREEK, MICHIGAN

**New catalogue of
books and supplies
free. Write for it.**

GOOD HEALTH PUB. CO.
Battle Creek, . . Mich.

Hygienic Water-Seal COMMODORE

IN SUBURBAN HOMES

where modern bathroom facilities are denied, the *Hygienic Water-Seal Commode* is an absolute necessity for comfort and sanitation.

IN SICKNESS, especially in *Contagious Diseases*, the Commode is indispensable in every home, as the **WATER SEAL** prevents escape of all germs and odors. It is light and portable; made of best galvanized iron; will last a life time. Provided with disinfectant receptacle. Indorsed by leading physicians and nurses. Not only private homes, but all Hospitals, Sanitariums, summer and winter resort hotels and cottages, schools and colleges, need a supply of **HYGIENIC WATER-SEAL COMMODORES.**



Inside View and Cover.

where modern bathroom facilities are denied, the *Hygienic Water-Seal Commode* is an absolute necessity for comfort and sanitation.

Price, \$3.00. Purchaser pays express charges. Send for Illustrated Circular.

HYGIENIC WATER-SEAL COMMODORE CO., Como Bldg., CHICAGO.

12 Pieces Sheet Music Free.

50 Cts. Join our Music Club. 50 Cts.

Fifty cents pays for One Year's Membership. You receive one piece of New Sheet Music each month (12 pieces in all) which sell for 40 to 50 cents each, mailed postpaid. Also, you receive a \$1.00 Magazine one year free. Address

MUSIC CLUB, 325 Dearborn St., Chicago, Ill.

In replying to advertisements please mention GOOD HEALTH.

DIRECTORY of SANITARIUMS



THE following institutions are conducted under the same general management as the Sanitarium at Battle Creek, Mich., which has long been known as the most thoroughly equipped sanitary establishment in the United States. The same rational and physiological principles relative to the treatment of disease are recognized at these institutions as at the Battle Creek Sanitarium, and they are conducted on the same general plan. Both medical and surgical cases are received at all of them. Each one possesses special advantages due to locality or other characteristic features.

- BATTLE CREEK SANITARIUM, Battle Creek, Mich.**
J. H. KELLOGG, M. D., SUPERINTENDENT.
- COLORADO SANITARIUM, Boulder, Colo.**
W. H. RILEY, M. D., SUPERINTENDENT.
- ST. HELENA SANITARIUM, or RURAL HEALTH RETREAT, St. Helena, Cal.**
- NEBRASKA SANITARIUM, College View (Lincoln), Neb.**
- PORTLAND SANITARIUM, 1st and Montgomery Sts., Portland, Ore.**
W. R. SIMMONS, M. D., SUPERINTENDENT.
- NEW ENGLAND SANITARIUM, South Lancaster, Mass.**
C. C. NICOLA, M. D., SUPERINTENDENT.
- CHICAGO BRANCH SANITARIUM, 28 33d Place, Chicago, Ill.**
DAVID PAULSON, M. D., SUPERINTENDENT.
- IOWA SANITARIUM, 603 E. 12th St., Des Moines, Iowa.**
J. D. SHIVELY, M. D., SUPERINTENDENT.
- SANITARIUM TREATMENT ROOMS, 230 Euclid Avenue, Cleveland, Ohio.**
A. W. HERR, M. D. SUPERINTENDENT.
- TRI-CITY SANITARIUM, 1213 15th St., Moline, Ill.**
J. E. FROMM, M. D., SUPERINTENDENT.
- HYGEIA BATH ROOMS, 810-816 18th St., Denver, Colo.**
- TREATMENT PARLORS, 612 3d Ave., Seattle, Wash.**
- TREATMENT PARLORS, 706 C St., Tacoma, Wash.**
- MEDICAL AND SURGICAL SANITARIUM, Apartado 138, Guadaluajara, State of Jalisco, Mexico.**
C. P. FARNSWORTH, M. D., SUPERINTENDENT.
- INSTITUT SANITAIRE, Basle, Switzerland.**
P. DEFOREST, M. D., SUPERINTENDENT.
- SKODSBORG SANITARIUM, Skodsborg, Denmark.**
CARL OTTOSEN, M. D., SUPERINTENDENT.
- NEW SOUTH WALES MEDICAL AND SURGICAL SANITARIUM, "Meaford," Gower St., Summer Hill, N. S. W., Australia.**
EDGAR CARO, M. D., SUPERINTENDENT.
- HONOLULU SANITARIUM, Hawaiian Islands.**
- CLAREMONT SANITARIUM, Cape Town, South Africa.**
- FREDERIKSHAVN SANITARIUM, Frederikshavn, Denmark.**

The COLUMBIA Graphophone

EQUIPPED WITH NEW AND GREATLY IMPROVED
REPRODUCER.

Price Reduced to \$20.

This superior instrument, which has long been a favorite at \$25.00, will hereafter be sold for \$20.00, placing it beyond all competition.

An Ideal Machine for Home Entertainment.

The new D reproducer is the latest improvement made by the Columbia Phonograph Company. With one of these new reproducers your old records will sound twice as loud, and the new molded, high-speed records will sound almost as loud as the Grand records. Price of the improved reproducer, \$5.00.

The GRAPHOPHONE
ENTERTAINS EVERYBODY EVERYWHERE.

Awarded the Grand Prize at the Paris Exposition. For catalogues and further information, address

COLUMBIA PHONOGRAPH CO.,

DETROIT—238-240 Woodward Avenue. CHICAGO—88 Wabash Avenue.
MINNEAPOLIS—13 Fourth Street, South.

ST. LOUIS—709 Pine Street.



The "COLUMBIA." (Type AT.)

VEGETARIAN Cafes and Restaurants



Eating-houses where food prepared in accordance with the principles of rational dietetics and scientific cookery may be obtained, are now open in the following places:

- Vegetarian Dining Rooms, 17 Bromfield St. (Elevator at No. 21), second floor, Boston, Mass.
- Cafe The Hygienic, 276 Euclid Ave., Cleveland, Ohio.
- 54 Farrar St., Detroit, Mich.
- 755 Market St., San Francisco, Cal.
- 317 W. Third St., Los Angeles, Cal.
- 607 Locust St., Des Moines, Iowa.
- Hygeia Dining Rooms, 58th St. and Drexel Ave., Chicago, Ill.
- Hygienic Cafe, 118 Monona Ave., Madison, Wis.
- Lincoln, Neb.
- Portland, Ore.
- Vegetarian Cafe, 1635 Champa St., Denver, Colo.
- GOOD HEALTH RESTAURANT, 616 Third Ave., Seattle, Wash.

A Time SAVER

Why waste your time writing dates when you can get a nice band dater, four times the size of the illustration, with changes for five years, for 15 cents, postpaid. Stamp pads to use with them, any color, 14 cents, postpaid.



Rubber stamps, numbering machines, seals, stencils, linen markers, etc.

Business Office Supply Co., Ltd.
BATTLE CREEK, MICHIGAN

Office Furniture, Typewriters, and Supplies.
BOTH 'PHONES 1270.
Offices in the new MARJORIE BLOCK, opposite the Post Tavern.

A Startling Statement

FROM A ❁ ❁ ❁ ❁

Health Commissioner ❁ ❁



NO one ever feels the pulse of a beefsteak to see whether it has a fever or not, but the proportion of beefsteaks and other forms of flesh food which are affected by disease of some sort is so great that the health commissioner of one of our largest western cities not long ago was compelled to assert that if in the inspection of cattle and other animals used for food all the diseased creatures were rejected, the price of beef would be at least a dollar a pound. From this assertion it is apparent that at least three quarters or more of all the beef, mutton, and pork eaten in the large cities is more or less diseased. Everybody who knows and appreciates this fact will be glad to become acquainted with **PROTOSE**, a newly discovered food product, which marks an era in dietetics, and is bound to lessen enormously the consumption of flesh foods. Protose is one of the already famous

Sanitas

Nut Foods

Protose has the advantage over meat in that it is naturally inviting to the palate, while the taste for meat is acquired; and it is more nourishing, more palatable, digests in half the time, and is absolutely free from disease germs, parasites, and poisons with which flesh foods of every description may be infected. Protose is manufactured by the SANITAS NUT FOOD CO., Battle Creek, Mich., who will send $\frac{1}{4}$ lb. sample can on receipt of 6c postage. Sold by leading grocers. Our paper, "The Nut Cracker," free on application.

Printing Presses

For all Classes of Letterpress Work.

The Miehle

High-Speed, Four-Roller, Front Delivery, Table Distribution Book and Job Press. Made in eleven sizes, from 26 x 30 to 48 x 65. This press is built to do the finest class of printing, and is specially adapted for half-tone work both in black and in colors. It is the standard Flat-Bed Press of the world to-day, as the producer of a greater quantity and finer class of work than any other press on the market.

The Miehle

High-Speed, Two-Roller, Front Delivery, Table Distribution Book and Job Press. Made in six sizes, from 30 x 42 to 45 x 62. This press is designed for a little cheaper class of book and job work than our Four-Roller, differing only in the number of form rollers, having two instead of four; otherwise it is similar in all its other features, and is faster.

The Miehle

High-Speed, Two-Roller, Rear Delivery, "Rack and Pinion" Distribution Job and News Press. Made in five sizes, from 30 x 42 to 43 x 56. Its method of distribution is "rack and pinion cylindrical" instead of "table." The class of work to which this press is more specially adapted is newspaper and poster work. Felt packing used. It is very fast.

The Miehle

High-Speed Pony Press, Two-Roller, Rear or Front Delivery, "Rack and Pinion" or "Table" Distribution. Made in two sizes, 25 x 30 and 26 x 24. This press has a well-earned reputation for remarkable speed and the superior quality of work it does.

Our New Sheet Delivery

Which delivers the sheet PRINTED SIDE UP OR DOWN, as may be desired, we put on all our presses with the exception of the "Job and News" and the smaller sized "Pony." This adds but little to the cost of the press to the purchaser, and is a great convenience.

For prices, terms, and other particulars address

The Miehle Printing Press & Mfg. Co.,

Main Office and Factory, Cor. Clinton and Fulton Sts.,

South Side Office,

274 Dearborn St.

CHICAGO, ILL., U. S. A.

**FASTER
THAN EVER**

CALIFORNIA

VIA **THE OVERLAND LIMITED**

**THE
NORTH-WESTERN
LINE**

THE BEST OF EVERYTHING

TICKET OFFICES
CHICAGO, UNION PACIFIC AND
NORTH-WESTERN LINE

481 Broadway, - New York	435 Vine St., - Cincinnati
601 Chestnut St., Philadelphia	507 Smithfield St., - Pittsburg
368 Washington St., - Boston	234 Superior St., - Cleveland
301 Main St., - Buffalo	17 Campus-Martius, - Detroit
212 Clark St., - Chicago	2 King St., East, Toronto, Ont.

The Cleveland Sanitarium.

Excellent facilities for giving Electric-Light Baths, Water Treatment of all sorts, Massage, Swedish Gymnastics, and other Rational Treatments. The work is in charge of skilled physicians and nurses from the Battle Creek Sanitarium. Address—

DR. A. W. HERR,
 230 Euclid Avenue - Cleveland, Ohio.

MICHIGAN CENTRAL

"The Niagara Falls Route."

Corrected Nov. 3, 1901.

EAST	8		12		6		10		14		4		36	
	*Night Express	†Detr. 11 Acoom.	*Mail & Express	*N.Y. & Bos. Sp.	*East'n Express	*N.Y. St. Sp.	*N.Y. Express	*At. 11						
Chicago	pm 9.25		am 6.45	am 10.30	pm 8.00	pm 11.30								
Michigan City	11.25		8.45	pm 12.00	5.55	7.55								
Niles	am 12.40		10.15	1.00	3.42	4.10								
Kalamazoo	2.10	am 7.10	pm 12.10	2.08	6.45	9.03								
Battle Creek	3.00	8.10	1.00	2.42	7.17	9.37								
Marshall	3.35	3.58	1.80	3.09	7.43	5.30								
Albion	3.5	9.0	1.50	3.30	8.03	5.52								
Jackson	4.50	10.00	2.35	4.05	8.40	10.50								
Ann Arbor	5.55	11.10	3.47	4.58	9.30	11.40								
Detroit	7.15	pm 12.22	5.30	6.00	10.00	am 12.40								
Falls View Suspension Bridge														
Niagara Falls														
Buffalo				am 12.20	am 7.00	7.50								
Rochester				8.13	9.00	10.00								
Syracuse				5.15	10.55	pm 12.15								
Albany				pm 1.30	9.05	4.50								
New York				12.16	6.00	8.45								
Springfield				8.00	9.00	11.30								
Boston														

Trains on Battle Creek Division depart at 7.45 a. m. and 4.00 p. m., and arrive at 12.40 p. m. and 6.10 p. m., Daily except Sunday.

O. W. RUGGLES, General Pass. & Ticket Agent, Chicago.
R. N. R. WHEELER, Ticket Agent, Battle Creek.

GRAND TRUNK R'Y SYSTEM.

EAST	8		4		6		2		10		76	
	AM 11.05	PM 12.49	PM 2.02	PM 8.15	PM 10.05	PM 11.59	AM 7.00	AM 7.00	AM 11.35	AM 11.35	AM 7.10	AM 7.10
Chicago		2.08										
Valparaiso		4.44	8.15	AM 2.00	AM 7.00							
South Bend		5.20	9.28	3.28	8.30							
Battle Creek		6.10	10.15	4.25	9.30							
Lansing		8.45			11.40							
Durand		8.00			11.50							
Saginaw		9.40	10.40	4.54	10.21							
Bay City		9.40	AM 12.30	7.00	PM 12.20							
Detroit		AM 12.32	3.27	10.10								
Flint		2.10	5.24	PM 12.35								
Port Huron		3.40	7.07	1.55	8.50	AM 3.40						
London		3.20	3.20	3.05	10.00	6.15						
Hamilton		PM 3.47	PM 7.20	AM 6.55	AM 8.56	PM 3.47						
Suspension Bridge		4.33	8.23	8.23	9.33	4.33						
Buffalo		AM 7.40	PM 1.30	PM 1.30	PM 7.40	PM 7.40						
Philadelphia		PM 7.00	8.15	8.00	PM 7.30	PM 7.30						
New York		8.00	8.00	6.30	PM 7.05	6.30						
Toronto												
Montreal												
Boston												
Portland												

Nos. 2-4-6-8-Daily
Nos. 10-76-Daily ex't Sunday

Nos. 3-5-7-Daily
Nos. 9-11-75-Daily ex't Sunday

G. W. VAUX, A. G. P. & T. A., Chicago.
W. C. CUNLIFFE, Agent, Battle Creek.

Yellowstone National Park

One of the most delightful spots on the American continent, and more easily reached via Union Pacific than via any other line, is the Yellowstone National Park. The stage ride from Monida & Yellowstone Stage Company is through scenery hardly inferior to the Park itself.

Side Trip from Ogden, Utah, or Pocatello, Idaho, via Monida, and Monida & Yellowstone Stage Co. in both directions, will be furnished holders of all tickets (one way first and second class, regular tourist, or special round trip excursion tickets), sold at Denver, Cheyenne, and points east, passing through Ogden or Pocatello to points in the States of California, Nevada, Oregon, Washington, and that part of British Columbia lying north of the State of Washington, upon application to G. S. L. agents at either Ogden or Pocatello, at the very low rate of **\$49.50**

This rate will include rail and stage fare covering seven and one-half days' trip, including all meals and lodging beyond Monida.

E. L. LOMAX, G. P. & T. A.
Omaha, : : : Nebraska.

THE Mexican Central Railway Co., Ltd.

CALLS ATTENTION TO THE FACT THAT
 IT IS THE ONLY Standard Gauge Route from the United States Frontier to Mexico City.
 IT IS THE ONLY Line in Mexico that can offer the Traveling Public the conveniences and comforts of Standard Gauge Pullman Drawing Room Sleepers, lighted by Pintsch Gas.
 IT IS THE ONLY Line by which you can travel without change from St. Louis, Mo., to Mexico City.
 IT IS THE ONLY Line from El Paso, Texas, to Mexico City.
 IT IS THE SHORT Line from San Francisco and Pacific Coast points to Mexico City.

The Lines of the Mexican Central Railway pass through 15 of the 27 States of the Republic. Eight million of the thirteen million inhabitants of Mexico are settled contiguous to them.

The principal Mining regions receive their supplies and export their product over it. Chihuahua, Sierra Mojada, Mapimi, Fresnillo, Parral, Guanacevi, Durango, Zacatecas, Guanajuato, Sombrerete, Pachuca, etc., etc.

WHEN YOU TRAVEL FOR BUSINESS, GO WHERE BUSINESS IS DONE.

There are only five cities of over 35,000 inhabitants in the Republic of Mexico that are not reached by the Mexican Central Line.

The following ten cities are reached only by the Mexican Central Railway.
 Chihuahua, 30,098 inhabitants; Parral, 16,382; Zacatecas, 34,438; Guanajuato, 40,580; Leon, 63,203; Guadalajara, 101,208; Queretaro, 38,016; Zamora, 12,533; Aguascalientes, 37,816; Irapuato 19,640.

It also reaches the cities of Torreón, 13,845; San Luis Potosí, 60,558; Tampico, (Mexican Gulf Port) 16,313; Celaya, 25,563; Pachuca, 37,487; City of Mexico, 368,777.

Daily Pullman service between St. Louis, Mo., and Mexico City, also between El Paso, Texas, and Mexico City, and vice versa.

C. R. HUDSON, G. F. & P. A. Mexico City.
W. D. MURDOCK, A. G. P. & T. A. Mexico City.
T. R. RYAN, Gen. Agt., 328 Marquette Bldg., Chicago.

The
Pioneer
Limited.

Famous
Train
of
the
World.

Chicago—St. Paul—Minneapolis.

VIA

THE ST. PAUL ROAD.

(Chicago, Milwaukee & St. Paul Ry.)

Equipment and Service
Unequaled.

Time tables, maps and information
furnished on application to

F. A. MILLER, General Passenger Agent.
Chicago, Ill.

Illinois Central R. R.



**EFFICIENTLY SERVES
A VAST TERRITORY**

by through service to and from the
following cities:—

OMAHA, NEB.
ST. PAUL, MINN.
MINNEAPOLIS, MINN.
KANSAS CITY, MO.
MEMPHIS, TENN.
CINCINNATI, OHIO.
LOUISVILLE, KY.
NEW ORLEANS, LA.

CHICAGO, ILL.
ST. LOUIS, MO.
PEORIA, ILL.
EVANSVILLE, IND.
NASHVILLE, TENN.
ATLANTA, GA.
JACKSONVILLE, FLA.
HOT SPRINGS, ARK.

Weekly through service between Chicago
and between Cincinnati

AND THE PACIFIC COAST.

Connections at these terminals for the

EAST, SOUTH, WEST, NORTH.

Fast and Handsomely Equipped Steam-heated Trains—
Dining Cars—Buffet—Library Cars—Sleeping Cars—Free
Reclining Chair Cars.

Particulars of agents of the Illinois Central and connect-
ing lines.

A. A. HANSON, Gen'l Pass'r Agent. CHICAGO.

H O L O L O L O L O L O L O L O O O - O - O - O - O - O - L - O - O - O !

Not such a Long Call from the

Wintry East to the Perpetual
Spring of California. ✈ ✈

*Less than three days from Chicago. Hardly four
days from New York via through fast trains of the*

SOUTHERN PACIFIC.

... LOW EXCURSION RATES ...

*Ask nearest agent for literature about the greatest resort
land in the world.*

W. G. NEIMYER, GEN'L AGT.,

193 CLARK STREET,

CHICAGO, ILLINOIS.

TOASTED WHEAT FLAKES

A RATIONAL FOOD

By virtue of its wheat origin and careful preparation, *Toasted Wheat Flakes* is a rational food. It supplies the elements of sustenance, repair, and growth to the body in a delicious, easily digested form.

Students of right living know that all the good qualities of wheat are lost if the food is served as a pasty, half-cooked mass. The vital properties which may be present cannot readily be extracted by the stomach, because that organ is not constituted to complete the cooking.

SERVED HOT OR COLD

Toasted Wheat Flakes is always crisp and dainty, a palatable food from which the system can derive all the food value of the wheat without severe drains on the digestive tract.

Toasted Wheat Flakes is sold by grocers in packages bearing a picture of the Battle Creek Sanitarium.

BATTLE CREEK SANITARIUM FOOD CO.

BATTLE CREEK, MICHIGAN

SPECIAL FOR JUNE!

Renew your subscriptions to **Good Health** now, and take advantage of these combination offers.

	REGULAR PRICE	OUR PRICE
Good Health and World's Work . . .	4 00	2 25
" " World's Work, and Success . . .	5 00	2 80
" " and Country Life	4 00	2 25
" " Country Life, and Success . . .	5 00	2 80
" " World's Work, Country Life, and Success	8 00	3 75
" " World's Work, and Country Life	7 00	3 20
" " and Criterion	2 00	1 45
" " Criterion, and Success	3 00	2 00
" " and American Boy	2 00	1 45
" " American Boy, and Success . . .	3 00	2 00
" " and Life Boat	1 25	90

Any one, whether a subscriber to **Good Health** or not, can take advantage of these offers. Send the subscriptions in at once.

We have made above special arrangements to induce the renewal of expired and expiring subscriptions to **Good Health**. Do not pass these liberal offers by.

Everybody knows **World's Work, Country Life, and Success.**

Subscription Dept.,
GOOD HEALTH PUB. CO., Battle Creek, Mich.

Guadalajara The Pearl of the Republic.



PICTURESQUE OLD MEXICO is not only one of the most interesting and charming countries for winter residence and travel on account of its magnificent scenery and primitive and perennially entertaining customs of the native people, and the profusion of flowers, fruits, and the delightful and continuous warm, not hot, sunny weather, but because of the remarkable salubrity of its climate. Lying at an altitude of five to seven thousand feet above sea level, the great plateau of Mexico, situated within the Tropics, presents unique, indeed we may say, unapproached climatic conditions for all classes, especially for chronic invalids, and even persons calling themselves well who need the advantages of rest and change.

Guadalajara is perhaps on the whole the most desirable location in the Republic. The attractions of this wonderful old city are

varied and numerous. One of the chief is the **Guadalajara Sanitarium** (called by the natives Sanitario Americano). This large newly erected structure is located in the midst of the city gardens, surrounded by palms and orange trees, and commanding on all sides most delightful and varied scenery. This is the only place in Mexico where travelers can receive United States comforts and care. Competent nurses and physicians who have been trained in the Battle Creek Sanitarium, with which institution the enterprise is connected, are in attendance, and patients are provided with every necessary comfort and advantage. The prices charged are reasonable, somewhat less than similar rates in the United States. For circulars containing full information, address—

GUADALAJARA SANITARIUM,

Or Battle Creek Sanitarium, Battle Creek, Mich.

Guadalajara, Mexico.

New England Sanitarium

SOUTH LANCASTER, MASS.



A Thoroughly Modern Institution.

CONDUCTED in affiliation with the Battle Creek (Mich.) Sanitarium, and, like the latter institution, equipped with the apparatus and appliances necessary for the successful treatment of all chronic disorders by modern and rational methods.

Admirably located, conveniently near to Boston, and readily accessible from New York and all the principal cities of New England.

An Ideal Place to Spend a
Vacation.

Among the advantages offered to invalids are *Baths of Every Description*, including the Electric-Light Bath, all forms of *Massage and Electricity*; *Trained Nurses and Operators* from the Battle Creek Sanitarium. *Prescribed Diets*, with *Special Facilities* for examination and treatment of Stomach Disorders.

Circulars and particulars gladly sent. Address—

G. C. NICOLA, M. D., Supt.

The St. Helena Sanitarium

OPEN ALL THE YEAR

SCENERY.

Overlooks the beautiful Napa Valley in its most charming section. Sixty acres of well-kept lawns, beautiful gardens and extensive groves of pine, live oak, and madrona.

CHARMING WALKS AND DRIVES



EQUIPMENT.

The buildings consist of a main five-story structure, ten cottages, gymnasium, chapel, laboratories, natatorium, besides thirty tents. Well furnished and steam heated, complete scientific apparatus, electric calls, elevator. Every accompaniment of a well-conducted institution of its kind.

SERVICE

For regular physicians, thirty trained nurses, forty assistants; skilled operators for application of massage, Swedish movements, and all kinds of electric and water treatment; classified dietaries. Infectious and offensive patients not received.

Address **ST. HELENA SANITARIUM, St. Helena, Cal.**



Good Health

Combined with
The American Mother

For \$1.25
Subscription price for both \$2.00



GOOD HEALTH is the largest and best health magazine in the United States; ably edited by Dr. J. H. Kellogg, superintendent of the Battle Creek Sanitarium. It answers questions constantly asked in the home, such as: How can women dress hygienically and yet artistically? What are the *best foods* to make one strong? What is the *best way* to

cook the *best foods*? What are the best combinations of foods for strength and good digestion? What is the best exercise for men, women; boys and girls; strong and weak; the dyspeptic and the rheumatic; the student?

THE AMERICAN MOTHER, edited by the well-known writer and author, Mary Wood-Allen, M. D., long connected with the Social Purity work of the W. C. T. U., is destined, first and always, for the education of mothers, and for the proper care of children from infancy. Its departments are devoted to subjects which are of vital interest to both mothers and teachers; the Children and the Nursery; The Relation of the Father to the Home; Parents' Problems; Poems for the Children, etc. One of the most interesting departments is "Tell Me a Story," something that the mother can read to her children both for profit and amusement.

The American Mother, supplemented by the **Good Health**, should give the home the best possible advice in all cases relating to its happiness, comfort, and health.

SEND YOUR SUBSCRIPTION AT ONCE.

GOOD HEALTH PUB. CO.

Battle Creek, Mich.

Good Health at News Stands

*Renewed, vigorous efforts are being made to have
GOOD HEALTH placed on sale at every news stand.*

*We want the names
of newsdealers who
are not supplied with
Good Health.*

*However, we would
like to have the sub-
scription of every
reader upon our
mailing list. Send
it if you can.*



*The monthly visits
of Good Health are
helpful to every in-
dividual and to every
home.*

*Subscribe
to-day—only \$1.00
a year.*

If your subscription expires in May or June, please send \$1.00 at once for renewal.



*Look for
Good Health
at the news stands
each month.*

*If you can't get it,
write.*



GOOD HEALTH, Battle Creek, Mich.

in replying to advertisements please mention GOOD HEALTH.

The GOOD HEALTH Adjustable Waist



THE LONG WAIST.

The GOOD HEALTH ADJUSTABLE WAIST

allows the weight of clothing to be adjusted about the shoulders, chest, and back, thus distributing it evenly. This is a desirable and comfortable feature.

Two Styles.—The LONG WAIST ends five inches below the waist line. The SHORT WAIST ends at waist line. Please mention style desired.

Material.—The waists are made in two kinds of material: a good grade of sateen, and jean, a lighter weight twilled goods. Each quality is supplied in either white or drab. The black only in sateen.

Measurements.—The bust, waist, and hip measurements (carefully taken) must be sent with order.

Sizes.—The regular sizes are from 30 to 42, bust measure (even sizes only, 30, 32, 34, etc.)

Prices.—The waists will be sent, postpaid, at the following prices:—

White and drab Sateen, size, 30 to 38 bust measure, \$1.75	Black Sateen, size, 30 to 38, . . . \$2.00	Jeon, 30 to 38 bust measure, (not made in large sizes) \$1.50
Size 40 . . . 2.00	Size 40 . . . 2.25	
Size 42 . . . 2.25	Size 42 . . . 2.50	

A Special, Healthful Garment,

devised at the Battle Creek Sanitarium. Made to fit the natural form. Affords ease, comfort, and health. Supports all garments without harmful pressure.

It is adjustable. Can be made larger or smaller at the waist, according to expansion. Can also be adjusted at shoulder to realize proper length of clothing. Full directions accompany each waist.



THE SHORT WAIST.

Write for circular with full information.

*Agents
Wanted.*

Dress Department

GOOD HEALTH PUB. CO.,
Battle Creek, Michigan.

BATTLE CREEK SANITARIUM



EAST HALL.

ALTHOUGH two of the main buildings of the Battle Creek Sanitarium were recently destroyed by fire, four large buildings (here shown) and more than twenty small cottages still remain. These have been fitted up for emergency work, and all of the skilled and faithful physicians and nurses, who have heretofore made the work of the institution so effectual, are still at their posts of duty, making it possible for the sick to avail themselves of the advantages that the institution offers, among which are Swedish movements, massage, and special dietaries, bacteriological and chemical laboratories for special research. Incurable and offensive patients not received. For circulars, address—



COLLEGE HALL.



WEST HALL.



SOUTH HALL.

Battle Creek Sanitarium, Battle Creek, Michigan



The Colorado Sanitarium



Twenty-nine miles northwest of the city of Denver is a well-equipped and well-regulated institution for the treatment of all chronic disorders. Buildings with all modern conveniences, including steam-heating, electric lights, elevators, gymnasium.

Baths of Every Description, Including the Electric-Light Bath.
Massage and Manual Swedish Movements.
Electricity in Every Form.
Medicated Air Rooms for the treatment of Diseases of the Lungs.
Classified Dietary.
Laboratory of Hygiene for Bacteriological, Chemical, and Microscopical investigation.

THE COLORADO SANITARIUM, • Boulder, Colo.