

# GOOD HEALTH



MENS SANA

OCTOBER, 1900.

- Water a Rational Remedy for Disease.
- Physical Education — Illustrated.
- The Cure of Nervousness.
- The Problem of Longevity.
- Health and Long Life.
- Fall Hygiene and Hot Weather.
- My Short Dress.
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- Brevities on Health.
- Of Interest to Cyclists.
- Fruit Juice and Beef Juice.
- Personal Cleanliness.

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VOL. XXXV.

EDITED BY J. H. KELLOGG, M.D.

NO. 10.

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# GOOD HEALTH

*A Journal of Hygiene.*

VOL. XXXV.

OCTOBER, 1900.

No. 10.

## WATER A RATIONAL REMEDY FOR DISEASE.

BY J. H. KELLOGG, M. D.

**W**ATER is a physiological agent. A drug is an antiphysiological agent. Water acts upon the body, and the body reacts to it. A drug does not act upon the body; the body simply acts upon the drug to get rid of it. Water applied to any part of the skin causes it to contract, and thus stimulates an internal portion associated with that part. The portion of the skin overlying the stomach is so intimately associated with the stomach by the vasomotor nerves that whatever happens to the skin over the stomach happens to the stomach; that is, as regards its circulation and nerve supply. When the stomach manifests sensibility, one of its peculiar sensations is hunger; and when it has lost its sensibility, there is no hunger,—the stomach is paralyzed, and the skin over it is also paralyzed.

Over the heart an area of the skin about as large as the two hands is associated with the heart. When we wish to slow the heart beat, we put an ice bag over this part of the skin, and when we wish to make the heart beat faster, we remove the ice bag. Whatever is done to excite the skin over the heart, excites the heart also. The skin overlying the liver is associated with the liver; hence, if a cold application is put on this surface, it

contracts the blood vessels of the liver; but if a hot application is made to the skin, it dilates the blood vessels of this organ. Therefore, if the liver is congested, the blood can be removed; and if the liver is diseased, healthy blood can be made to pass through it, and it will be healed, for it is the blood that heals.

Sometimes one feels sleepy. He bathes his face in cold water, and it wakes him up. Is there any medicine to be rubbed on the face that will wake one up as cold water does, and without the slightest injury to the skin?

What shall we do for a person with congestion of the kidney? Is there any drug that will remove the congestion?—No, a drug will increase the congestion, if it has any effect. But put the man into a tub of hot water, and the hot water will bring the blood into the skin in such quantities that the kidney will be drained of its blood and relieved. This is the simplest thing in the world.

Here is a man coming down with the plague. He has congested kidney, liver, lung, lymphatic glands, and spleen, and he is likely to have suppuration of the glands, inflammation of the kidneys, inflamed liver, and pneumonia. What is to be done for such a patient?—Put him into a tub of hot water. I was interested

in an article in a medical journal in regard to a doctor who had seen seven hundred cases of plague in Bombay. He gave a description of his treatment. He said that the best possible treatment is a blanket wrung out of hot water. The treatment employed by an eminent English physician for patients suffering from the plague consists simply in wrapping them in hot blankets.

Water is a wonderful thing, because it sets nature to work; it controls and modifies the natural healing power of the body. Cold applications changed every twenty minutes relieve congestion of the liver. Note how quickly this is done. But give the patient medicine, and it requires a long time to obtain relief, for the medicine must be taken into the stomach and absorbed; it must enter the circulation and be carried through the body before it finds the liver, and then only a small portion of it reaches that organ. If instead of administering medicine we apply a cold application to the skin overlying the liver, that very instant the liver feels the thrill of the application.

Here is a man whose heart is running away. Alcohol is given him to slow the heart. How long will it be before any of that alcohol reaches the heart?—It must first be taken into the stomach, absorbed, circulated, and distributed all over the body; it goes to the head and the heels and all the places between, and the heart gets only a little of it. But if we wish to slow the heart immediately, we put a cold application over it, and that very instant the heart feels the influence of the application. Why?—Because the impulse travels over the nerves directly to the heart, and it goes at the rate of two hundred feet a second. How far is it to the spinal cord?—About a foot. And how far is it to the heart?—Say a foot. That is two feet to the spinal cord and back. So it requires one one-hundredth

of a second before the cold application begins to do its work.

Suppose a person faints away and falls upon the floor. If we were to send for a doctor to administer medicine, and were to wait for the medicine to be absorbed and to get around to the heart and awaken it, by that time the patient might be dead. But every one knows what to do for a person who has fainted,—dash a little cold water in his face, and the heart begins to beat again, and the patient is well. Every case in which an organ has ceased operations is a case of faint. Here is a stomach that has fainted away at the advent of an enormous dinner; the poor stomach has a fit of indigestion. What is one to do? Swallow pepsin, the digestive principle from a pig's stomach? That will not cure the stomach. But a hot application over the stomach, followed by a cold application and massage, affords immediate relief. The stomach is energized by the cold application and goes to work. So it is with every bodily organ. If one knows where to apply the water, hot or cold, as the case may be, he can wake up any organ of the body. Water is a remedy that will revive a patient almost instantly. It is an almost universal remedy, and all we need to know is how to apply it. By this means we can revive every fainting organ of the body which has become sluggish; we can energize it by this wonderful power. There is no drug that will do this. Drugs do not create power.

Chronic diseases and acute diseases of all sorts are curable by water and other rational measures if employed in time. But time here means before the disease has advanced to the stage of actual breakdown of structure. There are very few cases which are curable by drugs. Malaria is curable by quinine. This is a parasitic disease, and quinine kills the parasite; but it does not cure the man.

because he succumbs to the disease again, for the man is soon exposed to a new infection. Water operates differently. By cold water properly applied, the strength and vigor of the body are increased to such a degree that it is able

to destroy the parasites without the quinine, and then it becomes a dangerous place for them. Cold water renders the body uninhabitable by the parasites, while quinine acts simply as a temporary poison.

## PHYSICAL EDUCATION.

BY GEORGE H. BROWN.

PHYSICAL education is a subject upon which volumes will yet be written before its necessity is fully grasped. The present condition of public knowledge upon the subject can easily be ascertained by asking any one of the thousands of young men who scramble out to business every day after bolting a nominal and tasteless breakfast, about his habits and health. The answer will vary only as regards his freedom from disease; beyond this he knows nothing on the subject.

His habits, he will assure you, are quite regular. He rides directly to his business every morning, stands at his desk or counter for about ten hours at a stretch, rides home, bolts his supper, reads the paper, and goes to bed. He has occasionally thought of joining a gymnasium, but could never find the spare time. Is this man living in the true sense of the word?—No. He is slowly but surely decaying without ever having bloomed.

It is often asked, "What kind of exercise must I take to have health and strength?" Let me give you my experience. Before living on a cereal diet and taking gymnastic exercise, I weighed

one hundred and twenty-six pounds, and was in very poor physical condition. My



wind and my muscular development did not approach their proper state. Now, after living on a cereal diet, with due care and exercise, I weigh one hundred and forty pounds. The accompanying illustrations will speak of my muscular condition, and as to my wind, I find that it is in first-class state. Of course I have also taken regular sleep, of eight hours' duration, bathed frequently, and breathed plenty of good air.

I advise all those who use tobacco or liquor to leave them alone, also to avoid tea and coffee, and to drink instead good clear spring water. Do not load your stomach with greasy pork and other

meats, or with pie and cake, but eat cereal food. If you are unused to this diet, the change will be a little hard at first, but you will look better and feel better by continuing it. Never eat or drink while overheated, excited, or angry; eat slowly and masticate your food well, and drink as little as possible while eating.



If you wish to reduce fat, abstain almost entirely from water and other liquids; but if you wish to increase flesh, drink water freely. An orange before breakfast is often a valuable aid in breaking up constipation; and when the liver is sluggish, and there is a costive condition of the bowels, the juice of a lemon taken in a glass of clear cold water before retiring will prove a wonderfully efficient remedy, for it acts promptly on the liver, and is healthful in general.

All gymnasium teachers and most physicians will tell you that a good cereal diet, with care and exercise, will keep the lungs, blood, nerves, digestion, and body in perfect condition.

Exercise the lungs whenever you can in the open air. Strict attention should be paid to the regularity of breathing, for whatever increases the breathing capacity

improves the health. The greatest attention is given to this point by all gymnasium teachers. Good wind is necessary for all feats and for the enjoyment of outdoor exercise of every description. It may be wonderfully improved by reading aloud, and by taking deep inhalations on first rising in the morning. These may

be continued for ten minutes at a time, inhaling the fresh air into the lungs while keeping the mouth shut, and then opening the mouth to exhale the air. There are few better methods for guarding against consumption, generally improving the breathing, and for purifying the blood. Do not think for one minute that good air can hurt you, but always breathe through the nose.

No exercise should be carried to excess, as that only exhausts the body. Strength will come slowly but surely. Swimming is a good exercise. It is especially beneficial when taken in salt water. Never allow yourself to cool off quickly if you are very warm. Do not handle heavy weights. Use light exercise for health, and do not tire out any muscle, but try to exercise every part of the body. The skipping rope is good for the wind, stomach, muscles, and legs, as also are running or a brisk walk of from two to four miles a day.

If the bowels are sluggish when you get up in the morning, knead them gently with the hands, but do not press on the body so harshly as to bruise it in the least, as that will injure, instead of benefiting your condition. On rising, sponge the chest and abdomen with cool water, after which rub the skin till a bright red glow covers



the surface. If possible, drink a glass of cold water slowly before breakfast; in cases where cold water can not be taken, sip hot water, as hot as can be borne without burning the mouth.

Bathe frequently, so as to keep the pores of the skin in a healthy condition. This will impart vitality to the whole organism. After bathing, always rub the body until it is warm and red, with a coarse towel; and for a tonic effect, bathe in cool or cold water in a warm room. Before going to bed, thoroughly clean the nails of the feet and hands.

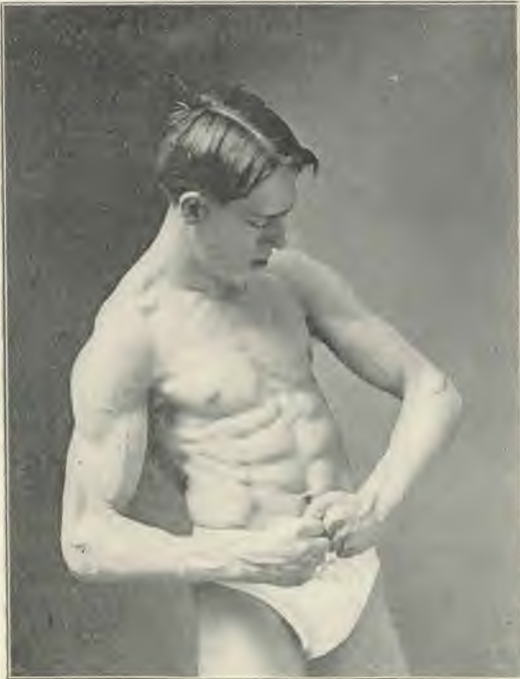
See that you get eight hours' sleep out of every twenty-four. This will rest the mind and invigorate the body. Always



keep the window of your sleeping-room open at the top; and better, if possible, keep the temperature of the room at  $65^{\circ}$  F. during the day, and at from  $45^{\circ}$  to  $50^{\circ}$  F. during the night. If you are inclined to be melancholy, sleep upon the right side.

You must keep regular hours for retiring, rising, and eating, and it will pay you not to intrude on these hours, even though you should have to neglect important business in order to do so.

All these things are good for the healthy body alone, but to be a healthy man requires something more. It requires mental and moral culture, for the state of the body is greatly affected by the state of the mind. It is a truth little known, that evil thoughts injure the body as well as the mind; so keep ever before you the thought that God is the author of all things; that whatever exists is from him, and that it exists for a purpose in the structure of the universe. Remember, above all, that our bodies are the temples of God, and that he holds us to account for the use we make of them.



## THE CURE OF NERVOUSNESS.

BY DUDLEY FULTON, M. D.

**H**EREDITY is the most potent influence in the production of nervous disorders. A history of epilepsy is found in the family in more than one third of epileptics, in from fifty to eighty per cent of all the insane, and in a very large majority of neurasthenics and other neurotic persons.

The accumulative force of bad heredity is strikingly illustrated in family lines where, for instance, chronic alcoholism was in the first generation, epilepsy or chorea in the second, insanity in the third, and in the fourth imbecility or idiocy, and finally, extinction of the family.

Much is being done by attempting the prevention of the marriage of epileptics, of those having had insanity, or of other neurotic persons, for the children of such individuals are freighted with tendencies toward like nerve weaknesses. The marriage of relations should also be discouraged, as loss of stamina and the practical extinction of the finer traits of the family result. The intermarriage of European aristocracies has afforded numerous instances of the resulting deteriorations.

A child of neurotic parentage needs special protection and fortification against like tendencies. He must be taken in hand early, and with this point kept in view, must receive early counter impressions, and must be placed in a channel that leads to nerve strength.

The brain of a child grows proportionately very fast the first seven years of life. This is the unstable period. The most lasting impressions for good or evil are received during this time. The centers of the special senses are stimulated and developed. The individual is very much the product of the impressions and influences received during this very early period. During the following few years

of the child's life his body tries to catch up with his brain, which about this time stops growing so rapidly, and becomes settled into more definite grooves. The child becomes physically active. Everything he does is emphasized by activity and motion. If he is allowed to follow his natural inclination to romp and play, eat and sleep, the body overtakes the brain growth, and the foundation of harmonious and symmetrical development of mind and body is laid.

But unhappily the ideas and concepts of school life, education, and training that have run rife throughout Christendom are more responsible for the production of nervousness than any other one influence, save, perhaps, that of heredity. The educational scheme has allowed children to enter schools by the time they were out of pinafores, to begin the study of subjects their young minds could not possibly grasp. The child has been taken from his motor life and kept in school several hours a day, where, instead of brain rest, he has received brain stimulation, and his muscles have been allowed to remain weak and undeveloped. He has been overtrained mentally and undeveloped physically.

The era of educational reforms now engaging the attention of leaders of thought promises new nerves, better balanced brains, and stronger men and women.

Children, and especially the nervous ones, as evidenced by restlessness, night terrors, teething fits, should during the first ten or twelve years of life be kept from school work and all influences tending to development of the nervous system. During this time it is brawn and muscle that are most needed. Fears need not be entertained that such children will "get behind" in their studies.

Abundant experience has shown that these are the ones who overtake and pass those who began school three or five years earlier. Children in this growing period need sunshine, pure air, good digestion, large lung capacity, nutritive, non-irritating food, and good circulation. They need these far more than they do stuffy schoolrooms in which they learn compound fractions and the names of all the rivers of South America or the highest peaks of the Himalayas.

The chances greatly preponderate that the individual harvests either the grain or the thistles planted in the soil of childhood. If puberty is safely passed, the individual is likely to remain the possessor of a strong, well-poised nervous system.

It will thus be seen that one does not happen to be nervous. He becomes so by heredity or by cultivation. The individual or his parents work as hard for nervousness as they do for gout. Man was not originally a "nervous" animal, but he has become more or less one by the degenerating influences common to modern life and bad habits. All mental, motor, and sensory activities are normally



Fig. 2.

equiposed by the two opposing influences in the brain,—excitation and inhibition. Without excitation there would be no activity or ambition; one would become stale, and petrify. Without inhibition the nerves would consume themselves by hyperactivities. The preponderance of either influence determines temperament and disposition.

Healthy action of the nervous system depends, first, on normal structure of the brain and nerves, and secondly, on proper nutrition.

In the average individual, structure is

normal. Faulty nutrition may be considered as the immediate influence that produces all nervous manifestations. This may result from non-nourishing food; from overwork and loss of sleep, not allowing the nerves recuperation and replenishment; from dissipation; from the

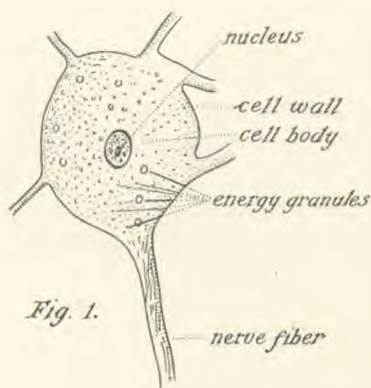


Fig. 1.

effect of poisons in the blood; from the use of tobacco, alcohol, tea and coffee; and from the excessive number of poisons accumulated in the body because of non-elimination.

The finer technique and skill in the laboratory to-day permit us to depict the effect of loss of sleep, overwork, strain, and worry; of alcohol and various drugs and poisons upon the nerve cells. This gives a good working basis in the management and cure of functional nervous disease.

The healthy nerve cell (Fig. 1) has a well-rounded outline, and a nucleus in its center, which is also of regular contour and form. The cell body contains an abundance of chromophylic (nerve energy) granules.

The same nerve cell (Fig. 2), when overfatigued, or after loss of sleep, or when improperly nourished from any cause, shows marked changes. The cell outline is irregular, the cell body is shrunken and uneven. The nucleus is displaced from the center, and is also

irregular in shape; more characteristic still is the absence of the nerve-energy granules.

After a hard day's work, worry, and strain, the nerve cells are in more or less the condition last described. If one is in health, sleep, rest, and the proper food restore the cell to its normal condition and nutrition. During the hours of sleep the nerve cell is recharged with energy, and is ready for the work of the day.

So long as repair equals wear, the individual has normal reserve and working nerve force, and healthy nervous action results. Should the output of energy exceed the income, it is only a matter of circumstance when manifestations of nervousness appear, depending entirely upon the sphere of the individual attacked. Thus it may be physical exhaustion, emotional strain, or paralysis of the will, or only a general nervousness.

The cure of nervousness, therefore, if it is to be successful and complete, easily goes at once to the cause that is at work depleting the nerve centers. This cause must be carefully sought for and removed. Thus, an individual has the capacity for performing a certain amount of work a day. For a time, if he goes beyond his safe limit, his natural reserve force will tide him over. But Wall Street, worry, and overwork lead him to go beyond his limit. He looks healthy, but so does a steam boiler to the ordinary observer until it explodes, and then there remains nothing but the wreck of the thing that was.

Nature requires the average individual to spend one third of his life in sleep. During sleeping hours, recuperation takes place most rapidly. Sleep is the brain's "rest hour." It is more necessary than food. Loss of sleep is one of the surest short cuts to nervousness. Man's brain is not a machine of perpetual motion, and there are no devices known to science which will enable the machinery of men-

tal movement to be constantly overworked without a collapse.

A man is ill in his nervous system when he is habitually tired and can not rest well and be thoroughly repaired from day to day by natural recreation and sleep. He no longer lives on the interest of his nerve tone, but is exhausting his reserve principal, and is not far from brain bankruptcy. He needs rest, relaxation, sound medical counsel, and careful treatment. The successful business man does not manage his business as he manages himself, because he is a better financier than a physiologist. If he were not, he would bankrupt himself in the beginning of his career. These men are so used to command success that they imagine that by the reading of newspapers and by a seaside or mountain trip or by a trip to Europe they can figure out what is good for them, and they proceed to seek their health upon their own amateur medical judgment. Oliver Wendell Holmes said with veracity, "A man who treats himself has a fool for a patient."

Such persons need, when symptoms and signs of nervousness appear, careful study and advice. It usually means that bad habits of living are to be corrected; office hours are to be shortened; business pressure is to be relieved; the proper amount of sleep is to be secured; foods are to be eaten that do more than stimulate. They must be foods that nourish and are true tissue builders; they must furnish energy and fuel to the body. The brain worker needs a more careful dietary than the laboring man. Dyspepsia is often the cause, but it is as often the result of a brain strain and brain disease dependent on the nerve connection of stomach and brain. When the brain breaks and the nerves give out, the organs they govern are sure to fail. The heart diseases of which many men of great success in life are reported to have died, are frequently

conditions of heart-nerve tire. Heart paralysis is usually heart-nerve paralysis, the nerve centers within and above the heart, in the brain, giving out.

Too often the brain-fagged and nervous individual seeks "rest" and comfort in the cocktail, the cigar, in tea and coffee, and alcohol. The "moderate" use of these stimulants and narcotics as surely, but more slowly, weakens nerve force and

vitality. They are injurious to the neurotic person, for they disperse nerve energy rather than conserve it. It is equally necessary that the individual do not cultivate sedentary habits, which stagnate the poisons of the body. If he is one who is inclined to worry or fret, he must "right about face" and court diversion and scientific relaxation of mind and muscle.

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## THE PROBLEM OF LONGEVITY.

BY F. EMORY LYON.

(Concluded.)

THE fact is, it is certain that we, in America especially, do not appreciate the potency of sanitary regulations and privileges. In our eagerness in the search of remedies for disease, we overlook and underestimate the causes. "We must speak softly at this point," says Dr. Holmes, "but have we forgotten that a simple measure of ventilation, proposed by Dr. John Clark, saved more than sixteen thousand children's lives in a single hospital? How long," he asks, "would it have taken small doses of calomel and rhubarb to save as many children? How insignificant are these compared to the great hygienic conditions."

Mr. Edwin Chadwick, the famous British sanitarian, giving the experience of sanitary authorities in England, where the dictates of hygiene are much more systematically enforced than they are in this country, declares we may, with a complete system of water supply and surface cleansing, insure a reduction of the death-rate to an average of only ten in every thousand, or one per hundred; also that in well-provided and well-regulated institutions for children we may secure them an immunity from the epidemics common among children, and reduce the death-

rate to an average of three in a thousand, or two thirds the death-rate among children in the general population. It has also been demonstrated in England that in prisons and other such places, under effective sanitary supervision the death rate has been reduced to one third of the rate prevalent among people at large. In Glasgow, probably the best-regulated city in the world, it is estimated that no less than 1,500,000 illnesses have been averted by conscientious sanitary precautions. As many as 24,000 deaths have been prevented in a single year; and during Queen Victoria's reign the average length of life has actually been increased no less than three and one-half years in that city.

In Berlin the health officers consider all fevers as absolutely preventable diseases. Then why not in any American city? Still more, why not in village or country? In Edinburgh they have had public bath-houses and laundries for more than fifty years. In some European cities, all the school children are marched once a week to the bath-house, and the poorest of their parents may do their washing under approved sanitary conditions. If such satisfactory results are possible in the attainment of long life and sound health by

sanitary regulations, why not make them of first importance?

Is it not a fact that in our nervous greed for gain we underestimate the value of human life and overestimate the sacredness of property? Is it not true that many a business man is sacrificing health and often integrity to his overpowering passion for wealth? Are there not everywhere thousands daily overdoing in the drudgery of unnecessary acquirement? Another evidence that this is so, and perhaps the best (as it shows what the great majority of people care most for), is in the fact that in every city we have a well-paid and honored fire department for the protection of property, while the health boards and street cleaners command little attention. The annual reports of the former are not read by even one per cent of the citizens, and Colonel Waring's "White Angels" in New York are the greatest exception.

Aside from the many practical contributions to the solution of the problem of longevity by the manifold applications of hygienic and sanitary science, there are two or three fundamental principles which must be more fully considered before we shall get to a really scientific basis for the undertaking. One of these is the increasing recognition of man's threefold nature of body, mind, and soul, and the close relation between them. Especially does this apply to the relations existing between the body and the mind and their co-ordinate conditions. The causes of insanity have long been recognized as quite as much physiological as psychological. Scientists have taught us also that not only does the spinal cord contain gray matter, like the brain, but that all our nerve processes are forms of thought. Therefore, we think, literally, to the ends of our fingers and toes. But while these facts are well known, it can not be said that the mind is equally

treated with the body. Much less is there usually any reference to the effect of character on the healthfulness of the mind or the body, and yet it is easy to find statements of the intimate relations existing between them all. We realize, moreover, that the body is holy, and as truly sacred as the soul. It is hard to attribute evil to any belief that is sincerely held, but there is little doubt that the religious teaching of the past is to blame for a wrong conception of the body, which many still have. The ascetic idea that the flesh is of the devil is itself of the devil. The accompanying superstition that the body is to be neglected and tortured and crucified is responsible for an improper understanding on the part of many good and intelligent people as to the true mission of the body. It is certainly time that all should understand that the physical laws which provide for the body's welfare are as truly divine as any spiritual laws. Knowing, as we now do, that it is just as sinful to violate the one as the other, it is high time that both the physician and the teacher of morals should proclaim the truth. The monks and flagellants of the Middle Ages to the contrary notwithstanding, we have no more right to abuse or misuse the body than we have to violate the decalogue. I know it is said, even in our own New England days, that it used to be thought a mark of both scholarship and piety for a minister to be a chronic dyspeptic, with a sallow, cadaverous countenance.

But the body is now known not merely as an instrument of the soul; it is its only outward embodiment. The body is the only means the soul has of expressing itself. What is in the soul, the body must tell, if it is truly told at all. The soul does express itself through the body, either to its advantage or its discredit, whether it be in the lithe graceful-

ness of a pupil in the Delsarte school of expression, or in the awkward frame of the half-grown soul of youth. Character puts its trade-mark upon the face, whether in the hardened countenance of the convict, or the earnest glow with which the true Christian looks out from the windows of his soul. We are sure the body daily helps the soul.

We would begin at the beginning by emphasizing the importance of a true physical basis for our living. Especially is this apparent now that we so fully recognize the oneness of physical and spiritual faculties. If the spinal cord contains gray matter, as scientists tell us, and all our nerve processes are forms of thought, then where shall we say thought ends and feeling begins? If "the body is the temple of the Holy Ghost," according to St. Paul, and "God's true Shekinah is man," according to Chrysostom, and "natural law is in the spiritual world," according to the scientist, is there any reason why our religion should not apply to the care of our bodies? Yet a wide observation has taught us that a large per cent of Christian people, in their reaction from the asceticism of the Middle Ages, are living a self-indulgent life, with little idea of the sacredness of the body, or of the need for a physical basis of righteousness.

For the idea that "the body is the temple of the Holy Ghost" is not merely a scriptural expression. It is scientifically true that the spirit of life is the tenant of the body. There is an essential dynamic vitality in the human body which can not be accounted for by the consideration of merely material elements. It is fully recognized that no instrument of healing does more than to assist that vital process of nature which is beyond our control, except as we come into perfect obedience to it. In other words, all true healing power lies within the body. All that can

be done by man, therefore, is to assist nature's own healing power. No means or remedy that does not work in harmonious relations with the vital forces within can be of any avail. In short, no external remedy has any inherent power to heal. Indeed, it may be truly said that absolute dependence upon anything entirely outside of ourselves is a positive hindrance to our recovery, and especially must this be true of any material substance that is a poison to the system, and can not be assimilated by it. Though it be a temporary stimulant, it must in the end do more harm than good.

The great foundation error of the medical world is that it proceeds upon the theory that man is a chemical being. But man is something more than a diminutive chemical laboratory. Man is not a chemical crucible for transmitting drugs into life and tissue. Such a theory is but the natural fruit of a pseudo-scientific age. It has thus far been maintained by an ultra-scientific civilization. But more and more we are beginning to realize that man is a living organism, with nature's healing forces within and without that are entirely adequate to keep and to restore the system to its proper balance.

These are some of the questions that must be considered before we can solve the problem of longevity. While they involve the consideration of scientific principles, the welfare of all is so thoroughly involved that all must give some attention to them, and not merely the scientific world. They comprehend that application of science which may be called the "art of living." We may be sure there will be little progress in the science of healing so long as there is any attempt to keep all the knowledge of the healing art within any school or class, or to keep it in the realm of mystery. There was no progress in astronomy so long as it dealt in the mysterious horoscopes of

astrology. There was no progress in chemistry while it was held in the solution of alchemy. There was no progress in geology until arbitrary conceptions and preconceived ideas gave way to real knowledge. There was no progress in political economy until the false assumptions of the classical economists were substituted by a real study of the historical development of industry and government. There was no substantial progress in religion so long as the Bible was kept away from the people, and the priesthood held forgiveness as a mysterious ecclesiastical prerogative. In like manner, we are justified in feeling there can be no great progress in medicine so long as the knowledge of the laws of health and disease and its cure is held as the peculiar property of a single profession.

Let the human body, the noblest work of God, be an open book of revelation to all people. Let it be known what are the causes and preventives of disease, and then we shall have little use for remedies. As I said at the outset, dissolve the mysticism of bacteria and bacilli that haunts the populace to the point of a superstition, as of myriads of imps seeking whom they may devour, and let it be known that all such germs, so far as they are disease-producing, are but the natural outgrowth of insanitary conditions. Let sanitary science and preventive medicine be taught in all public schools,—another mission for doctors,—and in a century we shall need no arbitrary curative nostrums.

A large amount of excellent literature upon these subjects, written by specialists in each line, can be secured readily and reasonably. These books and magazines tell of abundant food products of a healthful character, and various health appliances, and all natural methods of cure and prevention. But more impor-

tant still, they teach the laws of health, by obeying which all may learn by experience the art of living both well and long. It is one of the most gratifying and promising signs of the times that intelligent people everywhere are giving serious attention to these laws. To say, as some do, that appetite is stronger than reason, and that people will not practice health principles when they know them, is a travesty upon human intelligence and self-control. Self-indulgence and intemperance, to be sure, is the natural expression of ignorance; but obedience follows knowledge every time, at least approximately. That is, if people do not read upon these subjects, they certainly will not practice; but if they read much, and practice half of it, they are so much better off. Our experience proves that something of the measure of intelligence that these problems demand, is being applied to them. People are beginning to realize that to disbelieve in the efficacy and the sacredness of the laws of nature is heresy, both spiritual and scientific. It is dawning upon the scientific world that there are many ways of committing suicide. To shorten life by disobedience to nature's laws is one way. Therefore, barring accident, it remains for us largely to determine the length of our own life and that of our children. The fact that our children are involved, indicates that this matter of long and well-developed life is a process, a privilege, into which we are to grow. It is not to be accomplished in a moment, because, as I said at the outset, it is not a thing to be done by magic. Nor will it ever be accomplished by any catch-penny panacea or by mysterious medicine, chemical, mental, or spiritual. If the process is slow, we may find comfort in the assurance that it is as certain as the divine harmony between cause and effect. "Whatsoever a man soweth, that shall



he also reap." The same amount of common sense applied to this subject as to any other will have the same effect. This is now being done by many people, and it is having its legitimate fruitage in a happier and more healthful as well as longer and more useful human existence.

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### COUNSEL.

IF thou shouldst bid thy friend farewell,  
But for one night though that farewell should  
be—

Press thou his hand in thine; how canst thou tell  
How far from thee

Fate or caprice may lead his feet  
Ere that to-morrow come? Men have been  
known

Lightly to turn the corner of a street,  
And days have grown

To months, and months to lagging years,  
Before they looked in loving eyes again.

Parting, at best, is underlaid with tears,  
With tears and pain.

Therefore, lest sudden death should come between,  
Or time, or distance, clasp with pressure true  
The palm of him who goeth forth. Unseen  
Fate goeth, too.

Yea, find thou always time to say  
Some earnest word betwixt the idle talk,  
Lest with thee henceforth, night and day,  
Regret should walk.

— M. E. M. Davis.

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### HEALTH AND LONG LIFE.

BY CHARLES ARTHUR GASKELL.

(Concluded.)

OUT of a list of more than one hundred centenarians of whom definite information can be obtained, I discover a characteristic quite new to my thought, and that is most significant; *viz.*, very few were employees for any considerable part of life. Whatever their shiftings may once have been, they early ceased to be employed or salaried. They came into possession of themselves, of their own time and energy, and lived the free and independent life of the un hired. Moreover, they appear, for the most part, either to have risen above the ordinary purposes that center in the accumulation of "stuff," and the making of a considerable noise in the world, or never to have been struck by such ambitions. There was a consequent harmony of condition, and hence a mind free from chafing over its environment. This was not due to wealth, because, with rare exception, they were wholly or in

part dependent upon their own labor for support. Perhaps it is not important for us to know in what proportion of cases among centenarians this state of harmony was natural, or how many acquired it by patient effort. There is an experience (with most who have it, it may be termed an endowment,— a natural contentment) which, whether the person to whom it comes, be himself rich or poor, robs wealth of its power. If such a one has wealth, he has little use for it except to give it away, and if he has it not, he could not covet it. There are other things the having or the giving of which do greater good.

That man has yet to learn what it is to experience the keenest enjoyment who has never found outside of himself a beneficent purpose for which he concentrates his effort and focalizes his life,— something the successful pursuit of which

makes every day a gift of golden opportunity,—the best day of all the year. An ultimate goal is needed to prevent "moods," or "ups and downs" of temperament, and if this is not supramundane, it should be something elevated enough to aid in overlooking unavoidable annoyances. Even a hobby to ride is better than nothing with no enthusiasm. Busybodies who seem to burn the fuel of life most, yet with a system and regularity of well-formed habits, are generally long-lived. We consider it as true of man's years as of his efficiency that—

"He most lives

Who thinks most, feels the noblest, acts the best."

It is not old age, but length of life that men desire, yet so neglect. "'Tis more life and fuller, that men want." No one who knew Chevreul or Count Waldeck after they became centenarians, refers to them as if they were feeble or infirm in any way. On the contrary, both are spoken of as possessing qualities, up to the very last, which we associate with active manhood. It is not so much the number of years one has lived that makes him feeble, as the way in which he has spent them. One may be as young and active at eighty as another at forty. In one of John Newton's letters is the following very significant statement, "Last Sunday a man died here of extreme old age, at twenty-five." It was a happy remark of Dr. Holmes when he said, "To be seventy years young is sometimes far more cheerful than to be forty years old."

It has been observed by most writers on longevity that the longest-lived people have been of very pronounced individuality. One would naturally suppose it must be so, because to follow one's bent is nature's way, but the conventional way is to be careful not to be thought different from Mr. and Mrs. Grundy. If nature would assist such people by removing dif-

ferences of feature, height, weight, and the like, we would all be on a par with certain machines that are made after one pattern and numbered so as to determine which were made first. Those who live longest do not possess this characteristic, but have developed in a natural way, in conformity with taste and environment.

In the country, people live considerably longer than in towns; and the more distinguished they become, the shorter their lives. Centenarians are found among those who have led quiet, undisturbed lives, and who, though habitually active and industrious, have never encountered severe strain of body or mind. Hoffmann, the German physiologist, summarizes his advice on longevity as follows: "Avoid excess in everything; respect old habits, even bad ones; breathe pure air; adapt your food to your temperament; shun medicines and doctors; keep a quiet conscience, a gay heart, and a contented mind." A very sure way to premature senility is to cultivate a fear of age by regarding it as necessarily associated with imbecility.

If we could find a person living an idle, comfortable, selfish, and long life, terminated by a painless falling asleep from old age, we might pronounce it a physically healthy life, but a society and nation made up of such people would soon fall in pieces. Fortunately, such a life could hardly be. An idle and selfish life is never remarkable for length. Neither moral nor physical health can be maintained without labor and self-sacrifice. The ideal healthy person is one who in every part of his life does the largest amount of the best work of which he is capable, and who leaves healthy offspring. The healthiest nation is the one that produces the largest proportion of that kind of people.

The philanthropist and centenarian Montefiore is quoted as saying, "If you

would live long, live with old people when young, and with young people when old." The gift of retaining an interest in youth and its doings is certainly a great protection against the inroads of age, and the older one grows, the more need there is to keep in daily intercourse and sympathy with the young. Hence it is that nature has so arranged it that parents renew their youth in their children's joys and cares, and later on there is a fresh renaissance in their grandchildren and great-grandchildren. There is no lovelier corner of the ideal home than the place where grandfather and grandmother sit. Nothing appears more out of the order of nature than a home full of old people rich with experiences out of which to enrich the young, and in need of the enthusiasm and buoyancy of youth, yet shut out from the world they need and that needs them.

There is a change, which may be experienced, and is experienced by many, call it rejuvenescence, individual renaissance, new birth, or what you will,—a change that comes to the soul that yields itself to such an experience,—not sudden in most, but none the less pronounced because of

its gradual growth. Without this, old age is indeed decay,—a regret, in fact; for all have mistakes to recall, and only from a loftier point of view can we discern a higher success toward which our so-called failures may always be helps; generally they are our best helps. What more sublime than to experience and to contemplate this soul-youth that one may retain forever? Once born into that childhood, one is always young, and until then the real juvenescence has never begun. Much work and thought there may be in this ever-brightening springtime, but of worry there is none. The Father who "worketh hitherto" still works, and we with him, but in great peace, for there is no anxiety about it. "My little children," says St. John again and again, in writing to these little ones, many of whom have already nearly worn their bodies out. Such little ones grow younger, and not older, as the years pass,—move constantly in touch with the guiding Shepherd's hand.

"Never, my heart, shalt thou grow old.  
My hair is white, my blood runs cold,  
And one by one my powers depart,  
But youth sits smiling in my heart."

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## LEAVES AND CHILDREN.

WHAT the leaves are to the forest,  
With light and air for food,  
Ere their sweet and tender juices  
Have been hardened into wood,—

That to the world are children;  
Through them it feels the glow  
Of a brighter and sunnier climate  
Than reaches the trunks below.

Come to me, O ye children,  
And whisper in my ear  
What the birds and winds are singing  
In your sunny atmosphere.

—*Longfellow.*

## FALL HYGIENE AND HOT WEATHER.

BY ANTON LEISTER.

(Copyright, 1900: by Anton Leister.)

IN the former article the importance of breathing pure air continually, day and night, was asserted and emphasized. The comments on that article by various people are curious and instructive:—

“Nothing new to me in that,” said a cousin of mine, a professional nurse of wide experience.

“Well, if you have known all these things for years, you have of course practiced them, too?”

“Oh, dear, no! It’s all right about pure air; but one could n’t think of carrying it out in practice.”

Certainly not, if you choose not to. As for myself, I have carried it out to the letter, against bitter opposition—even at the cost of living in a cabin alone. It has paid me manifold.

Another, on reading the article, said: “You advise us to do such outrageous things—sleep out of doors in blizzards and freeze to death; and that when, now in cold weather, I have to take hot flatirons to bed with me to keep from freezing.”

“Certainly. If there is so little red blood in you as to have no more natural warmth than you say, you are the very one of all who needs to follow the ‘outrageous things’ intelligently, cautiously, persistently.”

Still other critics of that former article speak more loudly by their sufferings than by their words. During the recent hot days these critics, both men and women, would sweat, swelter, and mop faces all day, until late at evening, and even far into the night. On asking one the next morning, “Well, how do you feel now?” the answer was, “I got up sweating.”

In contrast with this not uncommon

experience, I know from my own experience that one may do the hardest work in the hot sun all day, sweat profusely, and yet be sweatless, cool, and comfortable in the evening—though sitting just across the table from others who are sweltering, and mopping faces. I know, too, that one can then go to bed out of doors at 9 P. M., and get up at 3 or 4 A. M., cool, fresh, vigorous.

The bad air of bedrooms and houses, the superfluous clothing (undershirts for men working in a blazing sun at 96° in the shade!), with the other hygienic transgressions, so reduce the tone of the nervous system that it no longer properly controls the action of the sweat glands, hence the abnormal sweating, the restlessness and the sensation of extreme heat long after the heat of day is past, the inability to get refreshing sleep. Errors in diet also form an important factor in this matter of heat endurance, as will be shown later.

Taking it for granted, then, that no well-founded objection can be brought against the necessity of pure air, or against the claim of extraordinary benefits to be derived from its persistent use, the next inquiry, naturally, would be, How are we to get sufficient pure air continually? To answer this requires consideration of topics like respiration, lung capacity, ventilation, tests for purity of air. But the importance of improving the rapidly passing season as a time of preparation—physical fortification—against the weakening effects of the coming winter confinement indoors, made the topic at the head of this article seem more opportune.

What can we do, then, hygienically,

during the fall to strengthen the nervous system, improve the circulation, and health generally, so as to make winter not only safe, endurable, but even enjoyable?

Foremost in answer, we must again put the principle, "Air, pure air, plenty of it, day and night." No months of the year are more favorable for outdoor sleeping, or for the most radical ventilation if sleep must be indoors, even to taking out the windows bodily and leaving all doors wide open. The nights, especially in August, are hot, the ground is dry, and the refreshing rest from the cool, outdoor air will aid in restoring vigor and elasticity that will make the hottest (or coldest) day comfortable, and hard work comparatively a pleasure. But remember, you broken-down, limp, pale, dyspeptic, bloodless shadow of man or woman, remember that sleeping in pure air will not make an elastic man or woman of you overnight, nor in a month. That alone is not the sum of hygienic practice. Other things must be looked after as well. The consideration of these will come later.

Some will object to night ventilation in September on the ground that the hot days and chilly nights will bring sickness if one dallies with the night air. It is cheerfully admitted that all night air is not alike pure and wholesome, any more than all day air is equally good. But, with a sufficient protection of porous woolen blankets to prevent chilliness, and a few boards to keep off the heavy dew, I would take my chances with the night air of September, October, and all winter, against malaria and other diseases, ten times to one with the putrid air of the average bedroom and the vitiated house air. With perfect aëration through lungs and skin, the system will assimilate food and throw off chance germs of disease far better than when weakened by the poisoned air of imperfect ventilation and respiration.

Here again, while urging the reader to make a trial of the better way of utilizing pure air for his own good, I would also repeat the former admonition, "Go slowly." Make no changes that are abrupt. Change, but change by degrees, and as you can bear without harm.

At this point I can not refrain from introducing a very striking testimony in behalf of the "out-of-door theory." The following extract is from an editorial, "Health Notes," in *Gleanings in Bee Culture*. The editor, Mr. A. I. Root, is a lifelong student of hygiene, and he and I often talk about these subjects. The editorial says: "When I left home (July, 1900) I was hardly fit to start on a trip (to the upper lakes). Unless I was exceedingly careful what I ate, my old trouble was very persistent. But in just one short week I regained a degree of health that I hardly ever felt before. My digestion became almost perfect; every ache and pain was gone; catarrh, neuralgia, rheumatism, susceptibility to draft, faintness before mealtime, lassitude, and a tired feeling had all vanished, and I was a boy again, with boyish appetite, spirits, strength. Now I do not know just what brought it about, but I will try to describe it for the benefit of others:—

"In the first place I was entirely outdoors. For a whole week I did not go inside of any building. [Mr. R. is about sixty-five years old.] When I was tired, I lay down in my blanket, with my face to the breeze from the water, and slept all I wanted to. For diet we had fish, roasted potatoes, berries. The paddling of the boat gave me exercise in arms and chest that I did not get from the wheel. All day long I again and again filled my lungs clear full of air. We had pure air,—air scented with the pines and other resinous trees of that region. Being in the wilderness, we wore very little clothing, went bareheaded, and took sun baths on

arms, chest, or whole body. I can truthfully say this: No matter what ails you, you will certainly get great benefit by living outdoors as much as possible."

So far Mr. Root. I can only repeat that he is a student of hygiene, and a writer on the subject for many years, a careful investigator and conscientious narrator who would not willingly mislead. Is not the evidence convincing that this "outdoor doctrine" has "something in it"?

After securing an abundant supply of clean air for the lungs, day and night, the point next in importance in fall hygiene is without a doubt the care of the feet.

The foot, physiologically, is the balance wheel, the equalizer of the nervous and circulatory systems. Given a cold, white, clammy, dead foot, one can not fail to find a forehead hot and dry, head and chest overloaded with blood, mental powers not keen, and other injurious conditions. On the contrary, given a foot of full size, warm, red with vigorous circulation, one will as surely find a cool, moist forehead, energy for work, physical and mental, and other indications of good health. The injury to the general health from a cold, lifeless foot, and the benefits of a warm, vigorous foot are strongly accentuated in the winter season, and in the case of people of indoor and sedentary occupations. How can I get rid of my weak feet? How can I make my feet strong, warm, and healthy? These are questions many a reader will ask. The answer is simple: Give the foot room, air, work. That is all there is to it.

The reader, I suppose, has heard of Father Kneipp and his fundamental remedy,—going barefooted in dew-wet grass? "Oh, but that is not decent, and only barbarians or lunatics would suggest such a practice." Possibly. Yet some very good people have gone and still go bare-

footed. The founder of the first college I attended, came upon the rostrum barefooted on commencement day; no one lisped an objection. Aristocratic English ladies and fashionable American misses go barefooted on the seashore sands of Normandy. They make a business of it from year to year, and write home glowing letters about the benefit they derive from the practice. But on coming home—they "could n't think of it, you know." Our missionaries who seek to show to Chinese women the wrong of crippled feet would lose their influence, I suppose, if our own girls, women, and men were found honest and courageous enough to practice at home, when proper and beneficial, what they find neither improper nor hurtful at the seashore.

And last of all, the writer of this, himself, for years has had experience in this matter of going barefoot,—experiences which more properly belong to a special article on the feet.

To return to Father Kneipp's barefoot-in-the-wet-grass cure. The averse reader probably has not heard of the young woman in high New York society who, being a hopeless neurasthenic, in desperation began to practice Kneipp's barefoot cure. You perhaps have not heard how the young lady's mother said: "That is the end of it. She has lost her mind entirely." But this was not the end of it. "Before many days, Mrs. L., the mother, was herself out in the dewy grass in her bare feet; then others of the family, and neighbors, every one being either greatly benefited or cured of various ailments."

To make a long story short, Father Kneipp, instead of being a crank and an idiot, was a man who first and last understood physiology. His barefoot-in-the-wet-grass cure is based on scientific physiological principles. The circulation is unbalanced,—too much blood in head, chest, body, when it should be in the feet. How

shall we get it to the feet?—By giving them room and the stimulus of air. This does away with shoes and stockings. Again, circulation is drawn to the feet by exercise. This requires walking or other exercise for the foot. Finally, a stimulus to the skin is needed. This brings in the dew and the friction and irritation of blades of grass, gravel, and the like. Then, most important of all, dew is found only in the morning. This arouses blasé people before sunrise. Again, exposure of any part of the body to cold air or water, at once causes deep inspiration; and there you are, back again to the first principle,—“Pure air and plenty of it.” Whether Father Kneipp dilated on all this, I do not know. He probably did not. His success was rather in making cures, in dealing with people “according as they were able to bear.”

If warm, healthy feet were put under every invalid who reads this, at least one half of these invalids would forget they were ever sick. Now is a good time to begin the work. “Go slowly.” If you are afraid of cold dew, try the hot dust of

the road. Try dipping the feet in cold water and dancing up and down on a rough mat or board. Try walking barefooted on the carpet. Go barefooted in your shoes,—anything to stimulate the capillary and arterial circulation of the foot, and give it proper size, shape, vigor, and bring the excretory pores in the hollow of the foot to their normal activity. That these pores when in proper condition are the most powerful depurative pores of the entire body is a hygienic fact as important as it is neglected.

Many objections will be urged against these unconventional and radical methods of bringing the feet into their proper physiological activity. “What? Make our feet big and red?” “Go barefooted?”—No, certainly not. There is no constraint about it at all. You may treat your feet as you choose, chop them off if you like. Only, I supposed they were given you for a wise, important, well-defined purpose: and I have tried to help you see that purpose, and how its accomplishment might be made of great service to you. Begin; persist.

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## MY SHORT DRESS.

BY EVORA BUCKNUM.

IT is nearly twenty-five years since I discarded trailing dresses. When I stepped out from society and became a business woman, I soon found that the short dress was the only practical dress to wear, and in the vicissitudes of my life since, I have never had any reason to change my mind. I did not begin to wear it because it was fashionable, or because some one else did, though during all these years there have been sensible women who have agitated the subject, and have sometimes worn the short skirt.

But I have always believed in cleanliness, and when asked why I wore my dresses so short, my reply has been, “Because I do not think it is neat to wear a dress long enough to catch the filth of the street.” Now that we are learning of the germs of diphtheria, tuberculosis, and all the repulsive things contained in the dust of the street, I feel very anxious to see many more escaping its dangers.

In country towns and villages I occasionally hear the giggling of ill-bred school children, or see the smiles of pert

misses or boorish boys, and once in a while, on dry, sunshiny days, I notice the exchange of glances and smiles between those not children in years. But the smiles of my poor sisters vanish when on rainy days they are struggling along with umbrella and parcels in one hand and with the other holding up their dresses in one place, in the back, while at the sides and in front they are at the mercy of the wet and muddy pavement. Then I am tripping along with my abbreviated skirts and high-topped boots, regardless of the rain or mud. I could smile then, but I feel nothing but pity and a desire to relieve others from their self-imposed burden of mopping the streets.

Like the wise man who carries his umbrella when the sun shines, I believe it is safer to wear the "rainy-day dress" every day; then one is prepared for rain or shine, mountain climbing, seaside rambles, summer outings of all kinds, and the sleet and snow of winter, not forgetting household duties, which the short dress assists in turning into pleasures. A friend was telling me, not long ago, of some gentlemen who were so disturbed by observing, from a window, the sufferings of the women on the streets one stormy day, that they became almost angry that "women had so little sense." As I stepped, a few months ago, into the store of a friend in one of our large Eastern cities, there was a silver-haired old gentleman sitting near the entrance, and after a few words of conversation, he exclaimed, "I want to compliment you upon your short dress." He then related some very interesting experiences of his own in discouraging the wearing of long dresses. I am often met by such remarks as, "I am so glad to see your short dress," or, "I admire your sensible dress," even from

women who have not yet summoned moral courage to adopt it themselves.

The general use of the bicycle skirt, however, has emancipated many, both of society and business women, to a great extent during the cycling season, and many others are fast coming to appreciate the charms of the short dress as a street dress at all seasons; but as for myself, my emancipation from the thralldom of long skirts extends to the house dress also, and to the dress for all occasions. I would not exchange the pleasure of tripping up and down stairs without paying any attention to my skirts for any possible advantage to be gained by adherence to fashion.

I wear my dress six inches from the floor, and have my boots made ten inches high. I tried the leggings first used with cycling suits, but found them nearly as objectionable as the long dress, so I adopted high-topped boots, and they are perfectly satisfactory. Of course they have spring heels, and are so comfortable in every way that I am never painfully aware of my feet. I always insist on having the dress skirt made an inch shorter in the back, so that, by wearing, it will hang evenly all around.

I have walked from ten to fifteen miles a day, for three or four consecutive days, with very little fatigue, which would have been out of the question with corsets, long skirts, and conventional boots.

I am sure that my readers will agree with me that with so much comfort and an approving conscience, I can afford to bear the smiles of the ignorant and ill bred. I am entirely willing to allow the regularly accredited street sweeper to have a monopoly of that business, but if I were expected to assist him, I should prefer to sweep with a broom rather than my skirt.



# RED BETTY, OR THE SLAUGHTER OF THE DUMB INNOCENTS.

BY MRS. L. D. AVERY-STUTTLE.

## CHAPTER VII.

(Copyright, 1899.)

I WAS horrified, even in my dream, at this story. It was so shocking that it appealed to my sense of pity and horror almost the same as if it had been a reality, and indeed, alas that I must admit it, the story that came to my dreaming ear from the lips of Red Betty on that memorable night, is as true in its essential particulars as if spoken by the lips of an angel.

Methought I found myself planning to question my milkman very closely, while I mentally determined to be satisfied with nothing short of intelligent and straightforward answers.

“At sundown,” continued my wonderful companion, “we reached my new home, and I was at once placed in a large, airy, well-lighted stable. But while I congratulated myself upon having so pleasant a home, I could not help contrasting my lot with that of my poor mother. In the morning, Isaac came to the stable, bringing Muriel, my master’s child, to see me. He carried her carefully in his arms, for she had been ailing, as master said, for a number of weeks. She was the dearest, gentlest little creature I ever saw. How I soon learned to love the child! She was so delighted when Isaac placed her upon my back that she clapped her hands in great glee. After a while the nurse came for Muriel, and I heard her ask Isaac to run into the market and bring some steak for dinner. I could not help shuddering, not so much for myself, for I was reasonably sure of my own life for the present, but I thought

of the number of animals in all stages of disease that I had seen driven away to be slaughtered, and of the delicate child whose health had already suffered so greatly from the use of diseased milk.

“Every day, and sometimes oftener, my little friend came to see me. Isaac generally brought her at first, but after a few weeks she became so much better that she would run out to the barn alone to see me quite often, and pat my nose with her delicate, thin little fingers, talking to me in her sweet, childish voice. She had no other pets except Firefly, the black pony, and me. She was such a sensible, womanly, tender-hearted child; she could never bear to see anything uncomfortable or in pain.

“One day I overheard her begging Isaac to take the check off from the pony. Firefly stood by the gate, near the barn, hitched to the carriage, waiting for mistress and little Muriel to go driving.

“‘Please, O please, Isaac,’ she pleaded, ‘won’t you please let Firefly put his head down? See how the ugly check hurts him. See how he tries to get it loose. Did you remember to water him, Isaac? I know you will fix the horrid strap that pulls his poor head up so high, won’t you, just to please Muriel?’

“Then mistress looked at Isaac and smiled, and he said that somehow little mistress had been even more thoughtful and careful than ever before, since he had read “Black Beauty” to her. Then he said he supposed he would better uncheck poor Firefly. This pleased the

dear child so much that her happy laugh rang out soft and clear as they drove away."

\* \* \*

Just at this point in my companion's story, methought we were interrupted by a loud bellowing among the crowding, pushing inmates of the yard nearest us. We looked up in time to see an enormous animal plunging and dashing about in a frantic manner. Then we saw a man approach him with a long pole in his hand, in the end of which was a sharp iron prod. He took careful aim at the poor animal's eye, and thrust the cruel point directly into it. The poor creature bellowed pitifully, and shook his bleeding head frantically from side to side. After that he was very quiet; the terrible pain had tamed him. But I could see his great body tremble like a leaf.

Again methought the wonderful Voice from the sky sounded out so terrible, yet so tender; so mighty, yet so unspeakably sad: "Blessed are the merciful: for they shall obtain mercy."

\* \* \*

Then in my dream it seemed that Red Betty rose from the place where she was lying near me, and walked slowly to the railing which separated us from the jostling herd, and looked in among them, as if searching for some familiar face. All at once she uttered a low moan, and turning sadly about, she returned to my side. It seemed that the sorrowful expression in the liquid eyes was still more noticeable, and I asked her to tell me what she had seen over in the inclosure.

"Nothing, lady, except that one of my friends has just fallen, and the herd is trampling her under their feet. There comes the man to remove the poor mangled body to the cart. She told me while I was with her that she felt very ill, and had for a long time."

Just then it seemed that a man, whom

I recognized as one of the owners of the herd, came up to the fence, and muttered to himself: "Here I've lost a number of these brutes, because the dallying butchers are so slow. If they don't hurry up faster than this, I'm afraid I shall lose a lot more."

Red Betty gave me a knowing look, and remarked simply: "I suppose, kind lady, that your fastidious race would shudder at the idea of eating the carcass of an animal that had died of disease; yet I can see but little difference whether they actually die or are killed just before death would naturally come."

To this logic I could, of course, make no reply, as from my own knowledge of my race it would seem that they do not question, before putting the savory morsel to their lips, "How did it die?" If it is only dead, why trouble themselves any further?

Then I begged Red Betty to proceed with her history.

"Every day," she continued, "I learned to love little Mistress Muriel more and more. She was so gentle in her manner toward every living thing that we all naturally felt a great attachment to her. She saved my life once. I will tell you how:—

"One day, a few weeks after I came to live at my new home, I heard Isaac, the kind stableman, telling master that he felt quite ill. The next morning a strange man came to attend to the milking. This man was different in every way from my keeper, and I was very much afraid of him. I heard him kicking and beating poor Firefly almost as soon as he entered the stall. Firefly was quite unused to such treatment, and made a great ado. The man, whom master called Old Gaffir, took me into the back yard and sat down by my side with his milking stool and the large tin pail which Isaac always carried back to the house filled with white, foam-

ing milk. But Old Gaffir did not carry the pail of milk to the kitchen that morning. I will tell you why:—

“He frightened me sadly with his rough ways and savage blows, and finally, just as he was ready to lift the brimming pail, he gave me an ugly kick. Then I forgot myself and ran, tilting the pail quite over in my haste. O, how angry Old Gaffir was! He did not stop to consider what might be the results of his rashness, and he picked up a large stone and threw it at me violently. I felt a sharp, stinging pain in my leg, and the next moment I fell helpless to the ground. Then Old Gaffir ran over to me and kicked my sides until I moaned with pain. Of course I tried to get up and run away, but I saw at once that I could not,—my leg was broken.

“When the fellow saw the mischief he had done, his anger cooled rapidly, and he tried to help me up, but he could not. So he ran to the house and told master that I had slipped and broken my leg. But I could plainly see that master did not believe him; for he picked up the cruel stone that Gaffir had thrown, and looking at him very angrily, said:—

“‘Gaffir, you have ruined a valuable animal for me. Now, sir, you may go home, and I shall expect you to pay me for the damage.’

“I almost pitied the mean old man, as he went sneaking away. But I soon had enough sad thoughts of my own, for I was suffering great pain, and not only this, but my heart gave a dreadful jump when I heard master say:—

“‘Poor Red Betty! Muriel will feel very bad indeed; but really, I suppose the poor thing will have to be killed; Isaac is sick just now, and I can do nothing for her, so the best thing will be to sell her to the butcher.’”

Then methought I saw tears in Red Betty’s expressive eyes, as she said:—

“But the little child saved me—little Mistress Muriel saved me. Pretty soon I saw her coming. She hurried up to me, and put her soft hands on my face caressingly. The hot tears ran down her pale cheeks as she sobbed brokenly:—

“‘No, no, papa, Betty must not be killed. She will live and get well. You can ask Dr. Briggs to come and fix her poor leg. He cured Firefly once when he was ill. You will, won’t you, papa?’

“So Muriel had her way. Dr. Briggs came and set and bandaged my leg. I must have made master much trouble and expense, for he often spoke of sending me to the butcher after all. But the child always came to the rescue, so in a few weeks I was able to walk about the yard again. O, how I loved my gentle preserver.

“At last,” said Red Betty, “when I had stayed with Master Hakes about two years, one damp morning in May I heard Isaac say that master and mistress were complaining, as well as Dinah, the cook, and that Muriel was very ill. Isaac had a great notion of talking to himself, and I usually paid slight attention to what he said, but this morning, hearing him mention the name of my little favorite, I listened intently.

“‘The child will die, I am sure,’ he said, sadly. ‘Poor little creature. I can not bear to see her suffer so. I have often told mistress that she ought not to give the child so much rare beefsteak. Many’s the time I have seen her eating meat which left a greasy, bloody stain on her plate.’

“Just then,” continued Red Betty, Caleb, the old gardener, stepped into the shed where Isaac was milking, and immediately began talking about master and mistress and poor little Muriel:—

“‘Master and mistress are better than they were,’ said Caleb, ‘and I guess they will get on all right.’

“‘But Muriel is no better,’ said Isaac, ‘and I am becoming more and more convinced that a flesh diet is not the one nature intended for us. Animals are getting to be more diseased every year, until sometimes I am actually afraid to touch a morsel of flesh. It is not long since the child was made very ill by drinking the milk of those wretched distillery-fed animals. I heard Dr. Brown tell master this morning that the case appears very much like poisoning, and he asked what they had eaten for breakfast. When master named fried liver among the rest, the doctor shook his head, and said he had recently had several very similar cases, and that the trouble had been already traced to the eating of diseased meat bought at a certain shop. Of course,’ continued Isaac, ‘it soon turned out that master had patronized the same shop.’

“‘I think they need not be frightened,’ said Caleb; ‘people have always eaten meat.’

“‘Yes,’ said Isaac, ‘but I tell you it is getting to be more diseased every year.’

“‘Then,’ said Red Betty, “the two men went away, leaving me very anxious about my little favorite. O, how I longed to tell master some of the dreadful things which I myself had seen. I did not think my friend Firefly knew anything about it, so I began telling him.

“‘I heard the whole story,’ he said, ‘and I am much more perplexed than I ever was in my life, to understand why sensible human creatures will do such a foolish thing as actually to risk their very life and health for the sake of indulging an appetite which to you and me, poor beasts as we are, seems dreadful and unnatural. Why, do you think that you and I could ever be induced to exchange our good, fresh grass for such a monstrous

diet as the bloody carcass of a dead animal?’”

Then in my dream methought my own countenance was covered with confusion, and shame threw her scarlet mantle over my cheek, till I would fain have fled from the spot, but my curiosity prevailed, for I was very anxious to hear more of the little child Muriel.

“‘I could see,” continued Red Betty, “that Firefly was very much excited, and I do not think either of us thought about anything else all day, for we were both very fond of the child.

“‘The next morning we were awake early, and anxiously waiting for Isaac. We did not have long to wait, for both Isaac and the gardener came into the barn, talking earnestly about the dreadful trouble which had fallen upon the family.

“‘They all seem to be doing well,’ said Isaac, ‘except the child. She was very ill all night, and the doctor says her fever is high.’

“‘Then,’ said Red Betty, “Isaac began hitching Firefly to the carriage, so that he could drive out into the country after little Muriel’s grandmother.

“‘After this, the days passed by slowly. Every day I waited, hoping to see little mistress again, or to hear some favorable word about her.

“‘One morning when I was standing in the yard by the barn, I saw mistress come out of the house. Her face was very white, and her eyes were red and swollen. I watched her curiously as she walked back and forth under the great elms, moaning, and wringing her hands. Then some one took a piece of soft white cloth and fastened it to the door. Firefly told me this,— he saw it, as he was tied to the front gate. He said he was afraid the child we loved was dead.”

## TRUE MEAT DISHES.

BY EVORA BUCKNUM.

THE foods which give us the largest amount of nitrogenous, or strengthening elements in proportion to their bulk are, in the order of their desirability, nuts, legumes, eggs, and milk.

the oven, covered. Rub through a fine colander with a potato masher, leaving them dry and mealy; now add salt, about three fourths of a teaspoonful to each cup (before cooking) of lentils. Beat until



LENTIL CAKES.

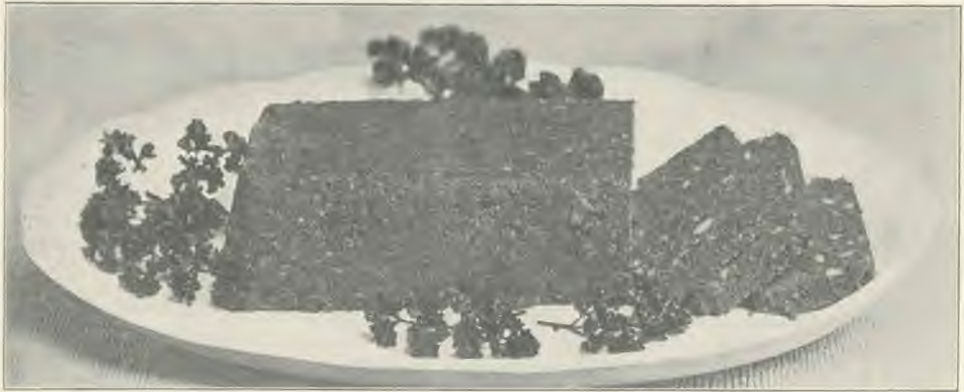
This month we give a few suggestions for the use of nuts and legumes (peas, beans, and lentils).

In the February number of *GOOD HEALTH*, "Art in Cookery," we gave a recipe for baked beans, and now that the days of fires are here, we can get out our bean pots again. In that article, also, are very explicit directions for preparing lentils for soup. These directions apply to beans and peas, and to lentils for cakes when they are dry, before any but the small quantity of water used in rubbing them through the colander is added.

*Lentil Cakes.*—Put the lentils, a few at a time, into a pan or colander, picking out the pebbles and any gritty particles. Then wash them and put them to cooking in three or four times their bulk of boiling water. Cook (adding boiling water when necessary, but never stirring) until tender. Then dry out well over a slow fire or in

smooth and creamy, shape into cakes like those in the illustration, and just before serving, put them into a hot oven, and leave them long enough to heat through, but not to dry out. Serve with sauce imperial, tomato sauce, nuttolene sauce, cream sauce, slices or quarters of lemon, or almond or dairy cream. The cakes may be made into rolls, balls, or cone shapes if preferred, and may be called croquettes.

For variety, use to each cup (before cooking) of lentils a half teaspoonful of sage or three tablespoonfuls of black walnut meal, or both the sage and the meal together. Savory may be used in place of the sage. Prepare the meal by rubbing the nut meats through a fine colander with a potato masher. The flavor of black walnuts is especially suitable for lentils. Five tablespoonfuls of Sanitas nut meal, one-half teaspoonful of sage, and one



NUT ROAST.

eighth to one fourth of a teaspoonful of powdered bay leaf is an excellent combination; and one half a teaspoonful of sage with four teaspoonfuls of grated onion, without the nut meal, is good.

*Peas and Celery Croquettes.*—Prepare Scotch (dried green) peas the same as lentils for cakes, not forgetting the beating. Add salt and a generous portion of celery sliced fine. Shape into rolls about three inches long and one and one-half inches in diameter, and bake in a moderate oven until well heated through, but not dried. Serve with any suitable sauce, though some prefer them without a sauce. Another recipe for these croquettes is as follows: One-half teaspoonful of celery-salt and five tablespoonfuls of Sanitas nut meal to each cup (before cooking) of peas. Any of these forms in lentils or peas are very pretty rolled in chopped parsley, before baking. Chop the parsley, not too fine, and spread it out thin, with spaces between the particles, on a vegetable board, and roll the cakes over it once.

If desired, the cakes may be rolled in fine zwieback or granola crumbs (grind granola in a mill for fine crumbs), then in beaten egg (using a tablespoonful of water and a little salt to each egg), and then in the crumbs again. But for some

the roughness of the crumbs spoils the smoothness of the cakes.

Mashed beans may also be used for croquettes or cakes.

Beans and chopped nuttolene served with cream or nuttolene sauce make a pleasing combination.

*Baked Split Peas.*—One quart (one and one-half pounds) of split peas, two tablespoonfuls of browned flour No. 3 (dark brown flour, February GOOD HEALTH, pp. 101 and 102), one-half cup of strained, stewed tomatoes, three and one-half to four teaspoonfuls of salt.

Wash the peas, and put them into a bean pot. Add the browned flour, tomato, and salt, which have been mixed together. Then turn over them two or three times their quantity of boiling water, stirring well. When boiling thoroughly, regulate the heat of the oven so as to keep them gently simmering for from five to seven hours. Do not stir after they are first put to cooking. They require greater care than beans to keep them from breaking. However, if they do not keep their shape, they will be of a jelly-like consistency, not at all objectionable.

*Baked Split Peas No. 2.*—One quart of peas, two large onions, sliced fine, one cup of strained, stewed tomato, three and one-half to four teaspoonfuls of salt.

Combine all the ingredients, and bake as above. Two tablespoonfuls of browned flour may be used with this recipe, if desired.

*Baked Split Peas No. 3.*—One quart of peas, one fourth of a cup of nut butter, one cup of tomato, three and one-half to four teaspoonfuls of salt.

Rub the nut butter smooth with the tomato, and add, with the salt and boiling water, to the peas. Bake as before.

The advantage of split peas over other legumes is that they are already hulled, and by combining them with something to give them a richer flavor, they are very palatable.

*Protose Steak.*—After removing protose from the can, cut it into halves from the top down, then in slices three fourths of an inch thick. Lay the slices on a tin or drifter. Pour over them the juice from the can, and set into a very hot oven, allowing them to just heat through and brown slightly. Do not leave them in the oven long enough to become dry.

Serve for breakfast with protose steak

sauce or nut and tomato gravy, or for luncheon with sauce imperial, mint saucē, or with some other of the sauces found in the booklet just published by the Sanitas Nut Food Co., for the use of nut foods, which can be obtained by sending them your address. The dish of protose steak in the illustration was garnished with chervil.



PROTOSE STEAK WITH GRAVY.

*Brazil Nut and Lentil Roast.*—Cook one and one-half cups of lentils until tender and dry, and prepare the same as for cakes. Then add to them one and one-half cups of chopped Brazil nuts, three cups of very dry bread crumbs, two teaspoonfuls of salt, and hot water according to the dryness of the crumbs, perhaps



PROTOSE AND NUTTOLENE IN SHELLS.

about two cupfuls. The mixture should be quite dry, for if too moist it will not be firm and solid like meat, and will not slice nicely. (A dish that requires a spoon for serving is not a roast.) Press into a brick-shaped tin, well oiled. Set into a pan of hot water in the oven, cover, and bake slowly for from one and one-half to two hours.

*Black Walnut Roast.*—Five cups of coarse bread crumbs, medium dry, two cups of black walnut meats, chopped fine, one and one-eighth teaspoonfuls of sage or savory, one and one-eighth to one and one-fourth teaspoonfuls of salt, two and one-half cups of hot water, or enough to moisten the crumbs. Bake the same as Brazil Nut and Lentil Roast.

This makes one good-sized loaf. This roast may be made with Brazil or

other nuts, but the black walnuts give a rich flavor that none of the others do.

Some of the most delightful roasts are made of scraps of protose and nuttolene and other left-overs, with different herbs, tomato, or browned flour for flavoring. A little practice will enable one to get just the right consistency and to serve them with the right sauces.

The loaves that are very rich in themselves should be served with a plainer sauce, and vice versa. For instance, the black walnut roast ought to be served with a sauce without oil, like the brown sauce, or, possibly, with the ideal catsup or Chili sauce found in the little book before referred to.

*Protose and Nuttolene in Shells.*—For this we take two-thirds protose and one-

third nuttolene, mince all fine with a fork (or grind a large quantity through the food cutter), and mix well together. It may then be made into cakes with the hands or put into a pastry bag with a star-shaped tube with large spaces, and pressed on to the shells, as in the illustration. Turn over the cakes the liquid from the can of protose, flavored with celery-salt, grated onion, or some of the herbs, or not flavored at all, as preferred. Place them on the top grate of a hot oven or under a gas blaze, not too hot. Just heat them through, and serve at once. They require no sauce, but a teaspoonful of jelly on one side of the shell is very enjoyable with them.



PROTOSE AND NUTTOLENE ROLLS.

They may be served on a folded napkin or a plate, or from the chop tray. In the illustration, you will notice, there are leaves of

parsley around the foundation on which the shells are placed.

*Protose and Nuttolene Rolls.*—This same mixture may be made into rolls and rolled in chopped parsley according to the directions for Peas and Lentil Cakes, and served with jelly, for luncheon; or the rolls may be heated quickly in a hot oven and served warm, if preferred. With the green of the chopped parsley and the bright color of the jelly, they are well garnished.

*Protose and Nuttolene Cones with Mint Sauce.*—Shape the protose and nuttolene mixture into cones, and serve cold with mint sauce poured over them from the top, or heat in a quick oven a few minutes, and warm the sauce slightly, but do not let it become hot.



*Nut Irish Stew.*—This is one of the very popular dishes. In two quarts of salted water cook from four to six large onions, sliced thin, and a few potatoes cut into irregular pieces about an inch in diameter. When the potatoes are nearly tender, add eight tablespoonfuls of nut meal, stirring it in carefully so as not to break the potatoes. When the potatoes are entirely done, drop in pieces of nuttolene or protose in strips about one and one-half inches long and three fourths of an inch wide. Simmer all together for a few minutes, and serve. When done, the stew should be rather thick, without having the potatoes broken.

*Baked Peanuts.*—Blanch Spanish peanuts by heating them for some time, stirring often, in an oven moderately hot, but not hot enough to brown them. Let them cool, then rub them between the hands, blowing away the hulls. Put the Virginias, which are larger, into boiling water, and boil for about three minutes, after which drain them and pour cold water over them, leaving them standing in the water while the hulls are slipped off with the thumb and finger, as almonds are blanched.

When the peanuts are blanched, put them into the bean pot with one-fourth cup of strained, stewed tomato, one tablespoonful of brown flour No. 3 (dark brown flour), and one and one-half teaspoonfuls of salt to each pound (about three fourths of a quart) of peanuts. Add a large quantity of boiling water. Let them boil rapidly for a half hour or so, then put them into an oven which will keep them just simmering for from eight to fourteen hours.

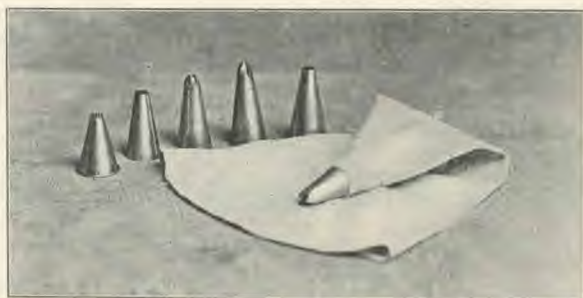
If necessary to add more water at any time, pour it, boiling hot, over the peanuts, and let it settle into them, without

stirring. When done, they should be just slightly juicy.

*Protose Steak Gravy.*—A very suitable gravy for protose steak is made by following the directions for Nut Bouillon, page 283, May GOOD HEALTH, using less water and salt. Pour this, hot, around the steak. The gravy may be thickened a trifle, if desired.

*Sauce Imperial.*—One quart (one can) stewed tomatoes, two large sprigs of parsley leaves, two large bay leaves, two large sprigs of thyme, one rounded tablespoonful of chopped onion, one eighth of a lemon, one tablespoonful of nut oil, one tablespoonful of flour. Cook all the ingredients, except the flour, oil, and parsley, together for twenty minutes, and strain. Heat the oil, without browning, in a frying pan. Add the flour, and stir smooth. Then pour over that gradually, stirring smooth, the hot tomato. Let all boil up well together, and add salt sufficient to destroy the acid taste of the tomato.

*Cream Sauce.*—Thicken rich milk (three-fourths milk and one-fourth cream) to the consistency of cream, with browned



PASTRY BAG AND TUBES.

flour No. 1 (flour browned to a delicate cream color); add salt to taste.

*Nuttolene Sauce.*—Cut one fourth of a pound can of nuttolene into small pieces. Add to it one-third cup of warm water, and beat, until smooth, with a revolving egg beater. Then add one cup more of water. Heat to boiling and thicken with

white or No. 1 browned flour blended with a little cold water to the consistency of cream. Add salt to taste. Part celery-salt may be used. A delicate flavoring of sage or savory and onion is enjoyable. Add a little chopped parsley, just before serving, if convenient.

*Brown Sauce.*—One pint boiling water, two tablespoonfuls of browned flour No. 2 (medium brown), one large onion, grated. Heat to boiling, and thicken with white flour blended with cold water to the consistency of cream; add salt; serve. A little chopped parsley improves the sauce.

*Nut and Tomato Gravy.*—Rub one-half tablespoonful of nut butter and one tablespoonful of browned flour No. 3 smooth with one-fourth cup of strained, stewed tomato. Add one and three-fourths cups of boiling water and one medium-sized leaf of mint. Heat to boiling, and thicken

slightly with white flour blended with cold water, using, perhaps, about one teaspoonful of flour. Salt to taste.

*Mint Sauce.*—To each two tablespoonfuls of lemon juice take one tablespoonful each of sugar and mint, using care not to chop the mint too fine. Stir until the sugar is dissolved, when it is ready to serve. If it is to be served with hot foods, let it get just warm, not hot. Do not prepare it very long before serving.

On the preceding page is shown the pastry bag, with a variety of tubes, used for the Protose and Nuttolene in Shells in this article, and for the nut butter shown in the Midsummer (July) Number of this magazine. In that number, also, will be found recipes for two other nut meat dishes,—Protose Timbale with Spinach Soufflé, and Broiled Nuttolene with Peas.

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## EAT, DRINK, FOR STRENGTH ALONE.

BY L. D. WESTFALL.

In Eden's pure, delightful clime,  
 Death, sickness, were unknown;  
 The Lord prescribed a bill of fare  
 For health and strength alone.  
 But when the tempter cited food  
 So pleasant to the eye,  
 Man thought he would experiment,  
 And other diet try.  
 Six thousand dismal, awful years  
 Of sickness, sin, and strife  
 Have failed to teach mankind to keep  
 Within the bounds of life.  
 Though various grains and nuts abound,  
 Delicious herbs and fruits,  
 Man longs for more, and gathers store  
 Of fishes, birds, and brutes.

He takes the life he can not give,  
 Consuming flesh and blood;  
 The scavengers of sea and land  
 Are favorites as food.  
 Strong sauces, spices, pickles, cheese,  
 Tone up the solemn bill,  
 While coffee, cocoa, tea, or ale  
 Add poison to the swill.  
 O, bury corpses in the ground,  
 And let the living be.  
 Build brain and body pure and strong  
 On food from herb and tree.  
 Eat vegetables, grains, fruits, nuts,  
 Of flesh and poison none;  
 A modest share of Eden's fare  
 Eat, drink, for strength alone.

## BREVITIES ON HEALTH.

BY DAVID PAULSON, M. D.

**The most successful time** to cure a disease is before it begins.

**Where Herod slew hundreds** of children, a much-advertised soothing syrup has slain thousands.

**Don't give indigestible foods** to a sick person just because your neighbors wish you to do so. A proper diet is the most important thing in securing good recovery.

**We have departed** from the natural simplicity of our forefathers, and are therefore compelled to leave behind us the natural strength of constitution which they possessed.

**Fiery spices create a thirst** that the town pump can not supply; thus the kitchen becomes a vestibule to the saloon, and the cook goes in partnership with the undertaker.

**Resorting to the use of stimulants** to secure strength is like placing a mortgage on one's property. It provides ready cash for the present, but sooner or later the mortgage must be foreclosed.

**If a dog wants to bark**, you can keep him quiet by holding his jaws shut, but the bark is still in him. So when you give a man morphine, he may not know that he is in pain, but the pain is still there.

**The man who is cultivating wrong physical habits** is by that very process sending out invitation cards for disease to call upon him, and it certainly would be remarkable if some disease did not accept his invitation.

**Just as watermelons** often grow as large in poor soil as in good, so a man may, while living on a totally unsuitable diet, develop an apparently good phy-

sique; but as in the case of the watermelon, there will be an inferior flavor about his moral and spiritual nature.

**A deep-seated error** is the idea that because the ox is strong, man may in some way get strength by eating him; but if an ox should follow the practice of eating other oxen, he would soon lose his magnificent strength. The same rule holds good for man.

**There is a school** that many a child enters at infancy, and from which he is not graduated until death, and that is the school of bad habits. He acquires them early, and adheres to them until late. The diploma that he gets in this school is ill health and chronic invalidism.

**The faith which appropriates physical righteousness**, instead of being an opiate, leading man to indifference concerning his physical habits, acts as a stimulant and tonic, and prompts him to the highest and most complete obedience to physical law.

**Would you not be very much surprised** to find a boy going to bed at night ignorant and waking up in the morning a college professor? It is likewise inconsistent to entertain the notion that there is some way by which humanity can secure health without sowing for it.

**Coop up a child** in a poorly ventilated room during the winter, allow him to sleep in the same bed with a tobacco-using father, so that he is compelled to inhale the poisonous nicotine as it is eliminated by the skin, and when spring comes, more than likely there will be a funeral in that family.

**When a man has fever**, he has lost his power to digest food, yet he really

needs nourishment more than a well man. Therefore, we must feed him on foods so nearly digested that they can be assimilated without any special digestive work. In fruits the sunlight has digested the starch by changing it into sugar so that it can be absorbed without any special effort on the part of the body. That is undoubtedly the reason why the instinct of the fever patient leads him to beg for fruit.

**Thousands of people** are sowing for the thorns and thistles of ill health. Because they do not have a bountiful harvest of disease the next day, they foolishly imagine that transgression does not hurt

them. Men go on using liquor, tobacco, and fiery condiments which blister the inside of their stomachs even more successfully than if they were put on the outside. They bury the carcasses of dead animals in their stomachs instead of in the graveyard. Others overeat, and neglect the necessary ventilation in their rooms, and even speculate on how soon automobiles will become cheap enough to enable them to dodge the blessing of taking exercise, and then, because they do not become physical wrecks at once as a result of all these vicious habits, it is hard to impress them with the fact that they are doing themselves any harm.

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## OF INTEREST TO CYCLISTS.

BY D. H. KRESS, M. D.

A FEW weeks ago I had the pleasure of an hour's chat with Mr. Will Brown, of New York City, the champion long-distance road rider of the world.

Mr. Brown is only thirty years of age. His father was a consumptive, and died at the age of thirty-two. His mother died six months later, of the same disease. Of the four children, two died in Michigan of consumption, the third went to Mexico and died there of some lung trouble. Mr. Brown is alone, having no relatives left. In 1897 he was laid up with what physicians called consumption, and was much emaciated, weighing but one hundred and fifteen pounds. About this time he discarded the use of flesh foods, and began living exclusively on grains, vegetables, milk, and eggs, and took to the wheel for exercise. Mr. Brown is now well and strong, weighing one hundred and sixty pounds, and holds every out-of-door bicycle record, from five hundred miles to two thousand miles, and has no fear whatever of dying of consumption. He attributes this marvelous change to his simple hab-

its. In place of meats he has used protose, nut butter, and other nut foods.

Mr. Brown says in a recent letter: "I am training Mrs. Emma R. Bayne, the thirty-day century-record holder, with the best of results."

Mrs. Bayne has recently established a bicycle record that no woman or man has ever equaled, completing three thousand miles in twenty days and twelve hours, and after a rest of an hour and a half, starting off to do another fifteen hundred miles in ten days. Mrs. Bayne attributes all her stamina and speed to the training of Will Brown, and to the thoroughly prepared and pure foods. Not an ounce of meat was eaten either by Mr. Brown in getting his two-thousand-mile record or by Mrs. Bayne. Her weight at the beginning of the race was ninety-eight pounds; at one thousand miles it was ninety-nine pounds; at two thousand miles, one hundred and two pounds; and at three thousand miles, one hundred and four pounds, a gain of six pounds during the thirty days' race.

## CIGARETTES PUT UNDER A BAN.

THE Chicago, Rock Island & Pacific Railroad has adopted the policy of refusing to take into its service any man who smokes cigarettes.

"We want to discourage cigarette smoking among our men," said President W. G. Purdy, in discussing the action. "Cigarette smoking is a vicious habit, and tends to befog the mind and make one listless and careless in the discharge of his duties. Experience has shown that the confirmed cigarette user is sleepy and of no account; he becomes irresponsible and lazy. In the railroad business, and especially among the trainmen, it requires a clear brain to discharge the responsibilities."

General Superintendent A. J. Hitt was the one to suggest this step, and the suggestion came to him after a long study of the effect of the vicious weed upon the human system, augmented by the judgment of the most eminent physicians in declaring the cigarette to be injurious. Some weeks before this action was taken, Superintendent Hitt, with two other superintendents of the Rock Island system, was investigating the actions of an employee of the road with reference to a matter which was under consideration at the time, when they overheard a conversation between two other employees commenting upon the same question. The latter were censuring the man who was under investigation. In the course of the discussion one of them remarked that the fault of the whole business was due to cigarette smoking, and that the man in question was a confirmed cigarette fiend. The comment impressed Superintendent Hitt with the result stated.

"Though the rule has been in effect but a short time," said the superintendent, "there has, we believe, been some perceptible result. There is no doubt that the use

of the cigarette unfits a man, in a measure, for work. My observation, as well as the opinions of eminent physicians, has convinced me the cigarette vitiates a man's capacity. It enervates him, renders him listless and somewhat reckless. A person addicted to the habit always has a languid feeling that is markedly evidenced in the drooping eye and the nervous body, and in the railroad business one must always have a clear brain, strong nerve, and healthy body, properly to carry out his duties."

This strong stand on the part of a great railroad company suggests the following incident, which recently appeared in the *Youth's Companion*:—

"A young man who had failed by only three points in an examination for admission to the Marine Corps, appealed to his representative in Congress for assistance, and together they went to see the Secretary of the Navy in the hope of securing what is known as a 'rerating' of his papers.

"How many more chances do you want?' asked Secretary Long. 'This is your third time.' And before the young man had a chance to answer, the secretary continued: 'How do you expect to get along in the world when you smoke so many cigarettes? Your clothes are saturated with their odor. Pull off your glove and let me see your fingers. There, see how yellow they are!' pointing to the sides of the first and second fingers.

"Before the young man found his tongue to offer an explanation, the Secretary asked him if he drank.

"Only once in a while,' was the sheepish reply.

"Secretary Long then invited the congressman into his private office, and while offering to do everything that he could consistently, added: 'I am sick of trying

to make anything of these boys that are loaded with cigarette smoke, and drink "once in a while." They are about hopeless, it seems to me.'

"When they left the department building, the young man, half apologizing for

his poor showing, remarked: 'Drinking, my father says, is the bane of the navy.'

" 'I guess it is,' replied the congressman laconically. 'It is the bane everywhere else, and I should think quite likely it would be in the navy.' "

## THE NERVOUSNESS OF AMERICAN WOMEN.

MRS. ALMON HENSLEY, in a paper on this subject read before the Hundred Year Club, of New York, gave six reasons for what she called the national disease. They were: insufficient rest, insufficient air and exercise, overeating and unwise eating, fashions in dress, social ambitions, unhealthy literature, and bad thinking. Among other things, she said:—

"To go now into details, there is first the matter of sleep. Eight hours is not sufficient. The woman who is doing any strenuous work, mental or physical, needs the hours from ten until seven for good, sound sleep. If the hours could be made occasionally from nine until six, and the early morning be tasted before it has been eaten up by the work-a-day world, some women's cares would drop away from them.

"If every hard-working woman—and by that I mean those who never have time enough to do all they want—would give up half an hour a day to absolute rest, it would have a very definite effect upon our physical lives. By rest I do not mean convulsive rocking in a rocking chair; I mean relaxation on a bed or sofa, and a rest of mind as well.

"Most of our women take their rest in street cars, hurrying mentally to the places whither they are bound, somewhat late, doubtless trying to help the car along with their anxious desires.

"I have seen an impatient woman in a slow street car expend anxiety of thought and convulsive effort enough to run

the car; if the requisite knowledge had been there, the motorman might have had a good sleep. Little nervous touches, such as impatiently tapping the fingers, and the unsightly habit of mouthing the veil, are all detrimental to the conservation of nervous energy; any physical motions that do not accomplish something are harmful.

### Afraid of Air.

"I wonder why so many women are afraid of air. The one great foe of a woman's peace of mind is a 'draft.' Consumptive patients are kept in the open air all day long. Are we to wait until we are consumptives before we take advantage of it?

"Air is so cheap. It is almost a pity that it is; if it were an expensive commodity, the people across the way, whose bedroom windows are closely shut at night, would certainly insist upon their share. We must have air and we must have sunshine inside our homes, if they are not to be asylums for invalids.

### Insufficient Exercise.

"Our women do not take enough exercise, of the right kind of exercise.

"Hanging on straps in street cars or pushing around a bargain counter is not exercise; wear a pedometer during a day spent in this way and see what a short distance has been traveled for the resultant weariness. If more women shopped as men do, there would be fewer nervous women and more bright, cheery homes.

**Overeating.**

"The fact is universally conceded that the American woman, as well as man, eats too much. It would seem to be a question of quantity rather than quality, and an eminent physician of this city told me that nine tenths of all the ailments for which he was called in were the result of disorders caused by overeating.

"Fat-soaked, soggy food is not conducive to mental sanity, nor can we expect a wholesome view of life from the dyspeptic. Prayers for moral rectitude and an utter ignorance of dietetics are an absurd and illogical combination. To pray, 'Create in me a clean heart,' and then to fill the body with rubbish, is a waste of words and fervor.

**More and More Drinking Done.**

"The overtaxed nerves of the American woman naturally turn to stimulants or narcotics, and it is a grave fact, and one that menaces not only the health, but the morals of our nation, that women are resorting more and more to alcoholic stimulants to keep themselves braced up to the pitch necessary for their various business or social duties.

"There are tea and coffee drunkards among women to-day—women as addicted to the tea or coffee stimulants as the veriest toper to his intoxicant. It behooves all women to watch themselves carefully lest some day they find themselves in the vice-like grasp of a power they are grown too weak to resist.

**Slaves of the Tailors.**

"One of the gravest causes of the nervousness of the American woman is her slavish devotion to fashion. Many of the nervous diseases are indirectly caused by the contraction of the corset and the weight of heavy clothing suspended from the hips. Let our women study for a month the anatomy and phys-

iology of the female torso, and they will scarcely continue to sin in this regard.

"I have never known or heard of a single great woman, a woman who ever did a real work for her country, her race, or religion, who compressed her waist or squeezed a number five foot into a number four shoe.

"It is pitiful to think of women with God-given intellects, senses, and wills, behaving like captives in the power of a relentless monster, bowing low in abject submission to a fetich erected by and for the purpose of filling the pockets of the ladies' tailors and haberdashers. Never let me hear the expression, 'We are free American women,' from the mouth of a woman who dares not wear what is pleasant and acceptable to herself, but must dress according to the decrees of a fashionable Paris.

**Social Wrecks.**

"Social ambition is one of the greatest enemies to our enjoyment of life. It makes more nervous wrecks than any other one cause, because it is in itself the source of many of the other causes of a nervous condition. The desire to have or to be something a little better, socially speaking, than some one else; to make a display of wealth on a moderate income; to dress as handsomely as Mrs. A., whose husband is a man of means; the striving to keep up appearances,—these are some of the things that must furrow the forehead, reach the nerves, and drive the victim to chloral or morphine.

"The ambition to mount a rung or two higher on the social ladder, to hobnob with the wealthy or distinguished, and to that end to endure snubs and repressions—these sound like impossibilities to the sane minds of thinking women, and yet we know that the heart burnings and jealousies caused by such

unworthy motives as these are every day filling sanitariums and private hospitals.

#### Poisonous Literature.

“Unhealthy literature and bad thinking may seem at first sight to have little to do with nervousness, but as a matter of fact the two have a strong pathological connection. Morbid fiction and unwholesome imaginings act very definitely upon the nervous centers of the body. The thoughts we think make up the thing we are, and it is impossible long to maintain a sound body if we are the guardian of a morbid and unhealthy mind. A continuous course of septic literature filling the mind with unwholesome images undoubtedly acts upon the nerve centers and promotes serious nervous disorders.

“Let our women be healthy inside and out, temperate, open minded, and natural, then shall we never fear nervous breakdown. Let us never forget that it is impossible to piece moral cloth on a garment of rotten physical material, and if we expect greatness and nobility of character from our children, we must give them sound bodies.

“The very important cause of the nervousness of our young women is the manner of their early training. Just at the time when a girl at school needs less

mental effort, she is given more difficult studies, and when she most needs free out-of-door life, she is more shut in. Mothers who allow their young girls to attend the theater, read novels, to be ‘shown off’ at entertainments, or to be ‘crammed’ for examinations, are doing them a great wrong, and one that can never be righted in after years.

#### Nervous Mothers: Unhappy Homes.

“Prolonged excitement will wear out the nervous system of the young girl. We have not far to seek for the cause of the nervous, pallid youngster that we see about us, nor yet for the causes of unhappy and discordant homes.

“A nervous mother does more harm than an intemperate father; he of necessity spends most of his time away from the home; she is always there. Her nervousness makes her indiscriminating and unjust, unduly faultfinding and unduly indulgent; a child has no right to be made the victim of caprice.

“Let the mother set her daughter an example of wholesome living and temperance, both of food and thought; and it may be that in the matter of our national disease, the next generation may not have to deplore the stigma that attaches itself to this.”

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#### He Prefers Bread and Butter.

Bernard Shaw, the English vegetarian, in an article upon “Science and Common Sense,” quoted in *Current Literature*, trenchantly attacks two subjects of interest to our readers. He says:—

“The truth is, your ordinary man can not reason. Presently the scientist comes along and says to him: ‘My friend, by a diabolically cruel process I have procured a revoltingly filthy substance. Allow me to inject this under your skin, and you

can never get hydrophobia, or enteric fever, or diphtheria, etc. I have even a very choice preparation, of unmentionable nastiness, which will enable you, if not to live forever (though I think that quite possible), at least to renew in your old age the excesses of your youth.’ The ordinary man jumps at the bait. He regards the scientist as another Hamlet, ‘cruel only to be kind’ (cruelty having come to be to him the most likely way of achieving a kind result); and he is saturated, as the advertisements and Holloway



Colleges of our patent medicine mongers show, through and through with a belief in miraculous cures. As to filth, science has taught him dirt is 'only matter in the wrong place.' It has not taught him that disease is only matter in the wrong condition, and that to inject matter in the wrong condition into matter in the right condition (healthy flesh, *to wit*) is to put matter in the wrong place with a vengeance. Neither has it taught him that on any possible theory of evolution those powerful instincts by which men recoil from certain transpositions of matter as filthy, and which carry the race from pig-gery to cleanliness (cleanliness, by the way, is 'only' matter in its right place), must have a sanitary function, to be disregarded at our peril. . . .

"Why, I ask, are we vegetarians ashamed of our instincts? Why, if we prefer a clean and humane way of feeding ourselves to a nasty and cruel way, may we not say so, instead of raising foolish amateurish arguments about nitrogen and hydrocarbons and the rest of the figments of the science of 'metabolism.'"

"I have not the slightest doubt, myself, that a diet of nice tender babies, carefully selected, cleanly killed, and tenderly cooked, could make us far healthier and handsomer than the haphazard dinners of to-day, whether carnivorous or vegetarian. The great incidental social benefits of the trade in baby flesh were pointed out long ago by Swift, whose demonstration of them has never been refuted. There is no objection whatever to a baby from the nitrogenous point of view. Eaten with sugar, or with beer, it would leave nothing to be desired in the way of carbon. My sole objection to such a diet is that it happens to be repugnant to me. I prefer bread and butter. This preference has no reference whatever to the relative richness of baby and bread and butter in hydrocarbons or uric acid or any such stuff."

### The Man of Ideals.

From an article on "The Positive Life," in the *Outlook*, we quote the following:—

"Nor need the man of inward purpose concern himself with consistency of life. There is nothing more beautiful than the reaction of a high ideal upon the actions of the man or woman who cherishes it; for an ideal steadily pursued, sooner or later shapes a constant and harmonious character, and we come at last to know what the ideals of men are by the character which those ideals have formed. Nothing is so fundamental in creating a real and noble personality as the choice of a high ideal; let a man choose such an ideal and follow it loyally, and he may give up all concern for his character; it will form itself. Such a man is emancipated, not only from the temptation to be selfish in his friendship, but from most of the fears that beset men of less clearness of purpose. Such a man is much less affected by the happenings of outward fortune, by material disaster of every kind, than a man who has not this inward guidance and constant pressure of the ideal upon his own nature. He is emancipated from fear of men because men can neither make nor mar his career; he is emancipated from fear of disaster because conditions can neither make nor mar his career; his only source of fear is disloyalty to his own purpose, and that is a fear which guards and protects rather than depresses. Such a man discards, one by one, all those things which belittle human life and fill it with weakening and corroding anxieties. He is not disturbed by the confusion of aims which he finds in the world about him; he is not concerned about his enemies, for he has none whom he has consciously made; he thinks generously and fearlessly of his friends, and he is lifted above all the outward changes of fortune by the spirituality of the end which he has chosen."

### Diet and Longevity.

"Meat as an article of diet produces heat," has declared Dr. H. S. Brewer, in the *Alkaloidal Clinic*. "People who confine their diet to meat," he continues, "have higher temperatures; higher temperatures consume the vital principle that prolongs life; the veins and arteries in meat eaters are gorged, dilated, and fever is most always present. Meat eaters, to be sure, are always great fighters, and the man who whips his wife and abuses his children will always be found to be a meat eater.

"Apoplexy, heart failure, is not characteristic of the vegetarian; but you never saw a case but that meat eating played a prominent part in it.

"It is certainly a suggestive fact that the first frosts of October put an end to the ravages of a number of contagious diseases, and that the infantile mortality of our large cities rises and sinks with the fluctuations of the thermometer. It has been ascertained that phthisis can be cured in the frosty heights of the Sierra Nevada Mountains far more easily than in the tropic lowlands, and that not December but July is the month *par excellence* of suicides.

"Cold air checks the progress of decay, thus facilitating the preservation of countless organic substances. I sometimes think that refrigeration rather than heat is the secret of longevity. Meat produces heat, heat induces decay; without meat, man might attain to great age and be young and supple as in youth; no stiff joints or uric acid to rheumatize him.

"It is our overheated houses and meat diet that are enriching the undertaker and conveying innumerable evils to the sons of men. They also create a thirst which is abnormal and makes necessary the saloon, the divorce court, and the gibbet."

### A Horrible Barbarism.

A New York daily recently gave an account of a butchers' picnic at which the chief attraction was a contest between two men in slaughtering and flaying steers. The animals were led forth, and the whole process of killing and flaying took place in the presence of a great assemblage of spectators. One animal resisted, and was brought to slaughter only by the greatest efforts and amid the intense excitement of the people. But all were eager to see it, and parents held little children up that they might witness the deathblow given to a poor animal struggling for its life. It is unnecessary to say that this is demoralizing to the people wherever it takes place. It is training the spectators to brutality in all their feelings. One who witnessed the scene alluded to said he would rather see a Spanish bull fight, as less injurious to the morals of the people.

### Bathing in Arctic Temperature.

*Physical Culture* repeats what the Arctic explorer, Walter Wellman, has to say of bathing nude in Arctic regions:—

"We had our regular baths, even in the coldest weather. As one of the few rules of the house was 'no bathing indoors,' on account of the condensation of moisture, the bather took his tub of warm water out into the storehouse, stripped to the skin, and enjoyed himself, even though the temperature out there was usually from fifteen to twenty-five below. This we did without taking cold. In fact, such a thing as a cold the writer has never had in the Arctic regions, though he has bathed in the open sea, diving from an iceberg, where a seal was disporting himself, curious to know what manner of animal the amphibious stranger was. I once took a bath in a natural bath tub formed of ice, walls and floor, and rather enjoyed it, though I did not stay in long."

# EDITORIAL.

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## FRUIT JUICE AND BEEF JUICE.

THE late Dr. Austin Flint asserted that many persons have been starved to death by the use of beef tea as the result of the popular notion that beef extracts, beef juices, beef teas, meat broths, represent a concentrated form of nutriment. It is difficult to understand how this absurd fallacy originated, but it is high time that it was thoroughly exposed.

The writer has encountered a large number of cases in which persons have evidently suffered great injury from the continuous use of beef extracts and meat broths. Many physicians have reported similar instances. An eminent French surgeon recently asserted that beef tea is simply a solution of ptomains (germ-poisons). The most eminent authors at the present time agree that beef tea has little or no nutritive value. Says Bunge, "We must guard against supposing that meat bouillon possesses a strengthening and nourishing influence. In regard to this, the most delusive notions are entertained, not only by the general public, but also by medical men. Until quite recently the opinion was held that bouillon contained the most nutritive part of meat. There was a confused idea that a minute quantity of material—a plateful of bouillon can be made from a teaspoonful of meat extract—could yield an effectual source of nourishment, that the extractives of meat were synonymous with concentrated food."

Bunge further asserts that the only value possessed by bouillon is that it "tastes and smells agreeable."

The eminent French chemist Hassel estimated that to furnish sufficient beef tea to supply the body with the amount of proteids or albumin required by a man one day, would necessitate the use of fourteen and one-half pounds of beef. To furnish the proper amount of other elements, for instance, carbohydrates, in the form of beef tea, would require a still larger amount of meat. The

principal ingredient of meat extracts of various sorts is the waste products of the body, which consist largely of urea, this in life being eliminated through the kidneys. For example, Liebig's extract of beef contains only .05 per cent of albumin, but nearly 60 per cent of excrementitious substances, while Valentine's meat juice contains but .44 per cent, with nearly 25 per cent of waste substances.

The extract of excrementitious substances found in beef tea and meat extracts, when applied to the brain of a rabbit a portion of whose skull has been removed, manifests its poisonous properties at once by paralyzing the part to which the application is made. A solution of these substances applied to a living frog's muscle paralyzes it so that it will not respond to the action of electricity, to which the normal muscle is very sensitive.

Fruit juices, on the other hand, contain a large percentage of nutrient material ready for immediate absorption. The best and perhaps the most nourishing of all is the juice of the grape. Ripe sweet grapes contain more than 16 per cent of carbohydrates, nearly 15 per cent of which is in the form of levulose, which represents perfectly digested starch, and is a nutriment ready for immediate use by the body after absorption. The juice of the grape contains very little nitrogenous matter.

Beef extract contains practically no albumin. In febrile conditions, the system requires a very small amount of proteids, being prepared neither to digest nor to appropriate this class of food elements.

The most important class of food elements in fevers is carbohydrates, which should be administered in a form as nearly ready for absorption as possible. All the digestive fluids are absent in fever, so it is highly desirable to administer the foods so far as possible in a state requiring only absorption.

The reviving effect at once experienced by a weary person from the eating of ripe grapes or drinking a glass of unfermented fruit juice is evidence of the high value of this class of nutrients. The administration of meat in any form or of meat extractives to fever patients is a most unscientific procedure.

It is strange that we are so slow to recognize the results of laboratory research borne out by practical every-day experience. In no class of cases is the use of fruit juice contraindicated, and it is of high value not only

in cases of fever, but in the case of feeble invalids of all classes, and as an aseptic food in cases of chronic toxemia and bacteriological infection of the stomach. The free use of grape juice or slightly acid fruit juices of other kinds is one of the best of all means of cleansing the stomach from pathological microbes and of encouraging normal digestion. This property of fruit juice and of fresh fruit is one which ought to be utilized in the treatment of many forms of febrile diseases.

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### Personal Cleanliness.

The daily bath is necessary for cleanliness, and especially for the training of the skin to antagonize the evil effects of clothing. Two or three times a week a little soap should be used, especially about those parts of the body where oil is secreted and filth accumulates. The warm cleansing bath once or twice a week is essential. It is best taken at bedtime. Eczema and other skin diseases abound in countries where the bath is rarely used. A historian of the Middle Ages asserts that during a thousand years no man, woman, or child in all Europe took a bath except by accident. Scrofula and various forms of skin disease existed to a frightful extent during this period.

Special attention must be given to the scalp, by the use of a fine comb and a good brush daily, and by shampooing with fine soap once a week.

Beneath the finger nails is a favorable hiding place for all kinds of germs, which, through accidental inoculation, may give rise to disease of the eyes and infections of other sorts. Take care never to soil the fingers with anything infectious when it is possible to avoid it. If such contamination occurs, cleanse the hands at once. Water as hot as can be borne and good yellow or soft soap are safe disinfectants if thoroughly employed. Attend to the teeth before and after meals.

If catarrh or colds exist, take good care of the nose, by properly using the handkerchief. It is well, also, to use some form of vaporizer to introduce some antiseptic which will

destroy the germs growing on the mucous membrane of the nose. Always avoid closing both nostrils in blowing the nose. When this precaution is neglected, air is driven into the middle ear and skull bones, causing disease of these parts. Coughing should be avoided. The sputum should not be expectorated upon the ground, but into a cloth and burned. This will prevent scattering of the germs of tuberculosis and other microbes that might be in the sputum. It is needless to warn the reader of the dangers of the filthy habit of swallowing the accumulations from the nasal passages. This sometimes results in chronic gastritis or catarrh of the stomach.

If the feet perspire freely, change the hose daily.

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### King Humbert a Vegetarian.

Incidentally, in connection with the recent announcement of the tragic death of the king of Italy, the fact has been mentioned that this amiable sovereign was an enthusiastic vegetarian. It is a pleasure to note that so distinguished a man found time amid the encroaching cares of his busy life to study the subject of scientific dietetics with sufficient care to become a disciple of the most advanced phase of dietetic reform.

A strictly non-flesh diet is to be highly recommended as especially adapted to kings and prospective monarchs, since it is conducive to coolness of mind, length of days, calmness, and amiability of temper. If every European monarch would become a vege-

tarian, one of the first apparent effects would be the holding of a successful peace congress and the disarmament and breaking up of the vast military camps of France, Germany, and Russia. Gore, as pointed out by Socrates two thousand years ago, is a lively product of flesh eating. So long as man makes war upon his animal friends ruthlessly and without compunction, destroying the lives of the ox, the sheep, the goat, his willing slaves, so long the murderous instinct thus begotten in his heart will lead him to make war upon his fellows.

### The Germs of Milk.

Dr. Henry Dwight Chapin, of New York, in a valuable article on infant feeding recently published, states that "over two hundred species of bacteria have been found in milk. Many of these (twenty) produce lactic acid, causing souring of the milk. Others give rise to a variety of phenomena giving to the milk various colors (red and blue) and producing a rosy or slimy appearance. These germs grow in milk with great rapidity, as do also the germs of typhoid fever. Tubercular germs are also found in milk, but do not grow in it.

Dr. Chapin called attention to a fact which is little known,—a new scheme devised by dairymen to prevent the souring or spoiling of milk. Borax and boracic acid have long been used for this purpose, but recently a powerful antiseptic, formaldehyde or formalin, has come into use. This substance is objectionable, not only because of its poisonous character, but because it gives rise to hard, tough curds.

Formalin may be detected by the following simple test: A portion of the milk to be tested is diluted by the addition of about one fourth its volume of water. To this is added, in a test tube, an equal quantity of commercial sulphuric acid. The acid must be poured in carefully, so as not to mix with the milk, but should be made to run down the side of the test tube, accumulating in the bottom. At the point of junction of the acid and the milk a layer of a violet color will appear if formaldehyde is present. When the tube is shaken, the curd formed will slowly dissolve.

### Instinct.

Men lost in the woods must often depend upon their horses to take them to a place of safety. The horse has not wandered so far away from God as man has. Many animals are far nearer heaven than man is. They have not departed from the order of nature. Man has despised his natural instincts and abused them. He has refused to listen to the divine Voice saying, "This is the way, walk ye in it," and has strayed away from the teachings of that voice until he is lost among briars and thistles, until he is bleeding and torn.

Man is subject to fifteen hundred different diseases. The horse has fewer than a fourth as many; he has not sinned as deeply as has man.

A partridge, infected with worms, seeks out poisonous sumach berries, eats them, and recovers. The partridge knows by instinct the medicine that will cure it. There is the same instinct in man if he will but follow it. Our instincts are all on the right side,—the side of nature and health. They are the same instincts that tell the horse where to go and the bird and the beast where to find the cure for their diseases. If we will listen to the voice of God and obey it, we shall have the same unerring aid.

### A Novel Method of Cleansing the Stomach.

Chhotalal Jivualal, an Indian editor of Baroda, India, sends us the following interesting description of the manner in which ascetics of that country wash their stomachs. He says:—

"They have not such an improved apparatus as the stomach tube. To wash the stomach, they simply take a fine linen cloth about twenty feet long and three inches wide. This cloth is first wet in warm water, and then is swallowed inch by inch, while sitting, one foot the first day, two feet the second day, thus increasing one foot every day, till nineteen and one-half feet are swallowed. The last half foot is not taken in. The abdominal muscles are then turned right and left and inward and forward, like churning,

for two minutes, after which the whole of the cloth is taken out, very carefully, with both hands. The ascetic is enjoined not to eat salt, condiments, or spices while practicing this. Milk, *ghree* (clarified butter), rice, wheat, and sugar are allowed as his diet."

### A Chinese Delicacy.

A Chinese boy, the son of an ambassador from China, was asked some time ago what he liked best to eat, to which he replied, "*Milhi*." This delicacy consists of young mice dipped in honey and swallowed alive and kicking, like oysters. When an expression of horror indicated the state of mind of a bystander, young Wu remarked, "Milhi are n't half so squashy and slimy as raw oysters." Wu's mother, being an aristocratic Chinese woman, has feet so small that she is compelled to go about in a wheel chair. When asked by a little girl if he did not think it cruel that the Chinese ladies' feet

should be tortured in that way, he replied, "It is not more cruel than for American ladies to torture their waists in steel corsets until their noses are beet red and their shapes like an hour glass."

### Cottonseed Oil as a Food.

The London *Lancet* recommends cottonseed oil as superior to cod-liver oil as a substitute for the more familiar fats. The fact that cottonseed oil is of vegetable origin would certainly give it preference over animal fats, but it can hardly be considered the equal of the olive or of the oil of nuts, the most digestible of all forms of fat.

### The Plague in Hamburg and London.

The bubonic plague is rapidly invading all parts of the civilized world. It has recently appeared in London and Hamburg. Of the four cases occurring in London, two died.

## ANSWERS TO CORRESPONDENTS.

**Enemas.**—Mrs. H. O., Ohio, asks if it is harmful to take an enema every morning, to prevent piles.

*Ans.*—The enema is probably better than suffering from hemorrhoids, but both should be gotten rid of.

**Stomach Trouble.**—T. H. E., California, has bowel trouble, passing mucus and blood daily, and experiences considerable pain. What is the cause?

*Ans.*—Probably inflammation of the colon. Rest in bed, with suitable treatment under the care of a physician, is the proper course to pursue.

**Heart Trouble.**—G. J. C., Missouri, desires a simple cure for weak heart and nervousness.

*Ans.*—There is no simple remedy for these grave diseases. The case requires the attention of a skilled physician.

**Germs as an Aid to Digestion.**—A. C. B., New York: "Do you agree with Dr. Kijanizin's experiments with germs as an aid to digestion, an

account of which appeared in the *Review and Herald*, March 21, 1899?"

*Ans.*—Germs are of no benefit whatever to digestion. This idea, advanced many years ago by a French chemist, was long since exploded. The presence of germs in the stomach and alimentary canal seriously interferes with digestion, and is the cause of nearly all forms of indigestion.

**Seeds—Cocoa Butter—Nut Mill—Asthma—Rheumatism—Dyspepsia—Cinnamon Oil.**—Mrs. D., Oregon: "1. What seeds can one use for food? 2. Is cocoa butter good for rough face and hands? 3. Can nuts be ground in a coffee mill? 4. For asthma in a woman of sixty, is a pocket vaporizer or atomizer necessary, or both? 5. Is there anything better than camphorated oil for rheumatism in the hand? 6. Is it safe to use hydrochloric acid for dyspepsia? 7. Is cinnamon oil good for catarrh and rheumatism?"

*Ans.*—1. All grains, peas, beans, lentils, and nuts of all sorts.

2. Dryness of the skin sometimes requires the application of an unguent. Fine vaseline is the best of anything, as it does not become rancid.

3. Yes.

4. The Vaporizer may be helpful. Other measures may be required, especially a visit to a sanitarium. We recommend that you correspond with the Portland Sanitarium, Portland, Ore.

5. Yes. The rheumatism is in the system at large; not in the hand. For such a serious trouble, a few weeks' sojourn at a sanitarium would be highly beneficial, and probably indispensable.

6. Small doses of hydrochloric acid sometimes afford temporary relief, but the doses should be regulated by a competent physician. No patient should undertake the use of any such remedy except under competent medical supervision.

7. Cinnamon oil properly diluted is sometimes beneficial as a local application in the treatment of nasal catarrh. We have had no experience with its use in rheumatism.

**Stomach Trouble.**—J. T. G., Kansas: "My son is seventeen years old and weighs eighty-seven pounds. His symptoms are: watery discharge from the mouth during sleep, and at other times eructations of mucus from the stomach; soreness over the bowels, aggravated by mental effort; some flatulence; ravenous appetite, but eats no meats. The trouble has existed for five years. What do you advise?"

*Ans.*—The young man should be taken to a sanitarium. We would recommend that you correspond with the College View Sanitarium, Lincoln, Neb. The case requires the care of a competent physician.

**Catarrh.**—H. B., New York, asks what will clear the head and throat in catarrh.

*Ans.*—The Magic Pocket Vaporizer will be found extremely helpful.

**Prescription for the Pocket Vaporizer.**—A. N. C., Canada, asks an explanation of the formula given in the directions for the Pocket Vaporizer.

*Ans.*—Write to the Modern Medicine Company, Battle Creek, Mich.

**Goiter.**—Mrs. A. T., Indiana, asks what treatment will cure goiter.

*Ans.*—There is no specific for goiter, but most patients can be benefited by proper treatment in a well-equipped sanitarium.

**Flatulence.**—A. H. N., Massachusetts, would like to know the cause of and cure for flatulence.

*Ans.*—The cause is retention of food in the stomach or colon, the result of fermentation. Flat-

ulence of the stomach may be temporarily relieved by the use of the stomach tube; flatulence of the colon, by the enema, with water at 70° to 80°. Sugar, coarse vegetables, meats, cheese, and like articles of food should be avoided. Well-dextrinized cereals (zwieback, browned rice, grānut, granose, etc.), should take the place of mushes, starchy vegetables, and ordinary bread. The food should be eaten dry. Ripe fruit may be eaten at the close of the meal, together with nuts or nut preparations.

**Salivation.**—E. T., Kentucky, would like to know whether constant watering of the mouth, accompanied by pain in the region of the kidney, signifies any derangement of that organ.

*Ans.*—Pain in the region of the kidney may indicate disease of that organ, but it is possible that the difficulty may be only prolapse or motility of the kidney. Inflammation may be present. The salivation may not be connected with the kidney disorder.

**Old Age—Coffee.**—C. L. B., Missouri: "1. What is your opinion of the following statements, the first from a foreign medical authority, and the second from an American: 'The chief characteristics of old age are the deposits of earthy matter of a gelatinous fibrinous character in the human system. The arteries become clogged by calcareous matter deposited by the blood. Cereals, even bread itself, greatly assist in the disposition of this matter in our bodies.' 'Coffee (and tea) prevents the waste of nutrition. It is for this reason that a laborer starting out in the morning with nothing for breakfast but a bowl of coffee and some bread can perform many hours of hard work.' 2. By drinking three glasses of distilled water, containing from ten to fifteen drops of dilute phosphoric acid to the glass, can old age be retarded?"

*Ans.*—1. They are the veriest nonsense. The calcareous deposit in the arteries is the consequence, not of food containing an excess of earthy phosphates, but of a degenerative process which begins with fibrous hardening of the arteries. The cause is poisons formed in the stomach and intestines by the action of germs. Tea and coffee are in no sense foods, and are altogether injurious. They diminish the power to work. This is a well-established physiological fact.

2. No. These statements are in the highest degree absurd.

**ringing in the Ears.**—H. M. L., California, would like to know if ringing in the ears indicates catarrh; if so, what will cure it.

*Ans.*—Yes, generally. In most cases, catarrh of the nose, the middle ear, and the Eustachian tubes is present. The services of a specialist are required.

**Diet for Kidney Trouble.**—C. T. B., Iowa, desires an outline for diet in kidney trouble.

*Ans.*— See answer to L. A. K., September No.

**Diet for Old People—Pain in the Shoulders.**—H. S. T., seventy-eight years old, asks (1) for an outline of diet for old people; (2) the cause of and cure for pain in the shoulders.

*Ans.*— 1. A diet for old people which could be supplied at home might consist of the following: Fresh fruit of all kinds, cooked fruits, well-cooked purées of peas, beans, and lentils, cottage cheese, buttermilk, bread cut in thin slices and toasted in the oven until brown, browned rice, green-corn pulp. From these simple elements different dishes may be prepared to furnish quite an extensive bill of fare. Among specially prepared foods which are particularly good for aged people may be mentioned granose, which even a toothless person may masticate without difficulty, granola, grānut, and crystal wheat.

2. The general cause is a sensitive solar plexus, as shown by a tenderness of the epigastrium.

**Grape Juice.**—J. D. S., California, would like to know the best way to prepare grape juice.

*Ans.*— The pure juice of the grape is expressed and then canned the same as fruit.

**Stomach Trouble—Sick-Headache—Enlarged Neck—Convulsions.**—Mrs. J. S. B., Vermont: "1. What is the cause of and cure for rumbling in the stomach? 2. What will cure sick-headache? 3. Would you recommend Hood's Sarsaparilla and painting the neck with iodine for enlarged neck? 4. What will cure infantile convulsions induced by disordered digestion?"

*Ans.*— 1. The formation of gas in the dilated stomach.

2. See answer to A. L., Wisconsin, August No.  
3. No.

4. The disordered condition of the stomach must be removed. The hard curds formed by cow's milk are often the cause. By the use of malted nuts or Sanitas infant food, this difficulty may often be avoided. Zwieback, or well-toasted bread, softened with a little fruit juice or diluted cream, is often a good remedy in these cases. A competent physician should be consulted at once.

**Itching Scalp.**—H. E. T. asks for a remedy for itching scalp.

*Ans.*— Shampooing of the scalp two or three times a week, with the application of a saturated solution of boric acid afterward. In some cases a little zinc ointment is useful.

**Weltmerism—Dr. Brace's "Senser."**—A reader is anxious to know (1) our opinion of Professor Weltmer's magnetic healing of diseases; also (2) of Dr. Brace's discovery of the "senser," which, held between the thumb and forefinger, produces a feeling of contentment.

*Ans.*— 1. The so-called Weltmer system of treating disease is simply a method whereby people who have susceptible imaginations are made to believe that they are well. The chief factor in many cases is the patient's morbid imagination. Any method by which the idea of sickness can be removed from such a patient's mind will prove effective. Magnetic healers, faith healers, Christian Scientists, and others succeed well with cases of this sort, and by the apparent cures often achieve considerable, though temporary, success in winning public confidence. All these methods are thoroughly unscientific and unreliable, and always fail utterly in dealing with organic maladies and grave functional disturbances, since they do not touch the causes of these maladies, which are usually to be found in wrong habits of life, in wrong eating, deficient exercise, improper dress, and other errors in regimen.

2. We have never had the pleasure of seeing Dr. Brace's "senser," but we would suggest to our correspondent to try the experiment of holding the thumb and forefinger together without the "senser," or with a bit of paper, a lead pencil, or any other small object in its place. A lively exercise of the imagination will doubtless produce the same "feeling of contentment" which is attributed to the "senser."

**Epilepsy.**—S. C. B., Indiana: "My son, thirteen years of age, has been troubled with epilepsy for several years, the attacks occurring once or twice a week. He does not fall or have twitching of the muscles, but loses consciousness for a moment, then is drowsy for an hour or so; otherwise he is bright and active. The trouble is not hereditary. 1. Can any good result from medicine? 2. Will study aggravate the malady? 3. Will he outgrow it? 4. What would you advise?"

*Ans.*— 1. There are various drugs which give temporary relief in cases of this sort, but for a permanent cure, more thoroughgoing physiological measures must be employed.

2. Moderate study is helpful in such cases, and is in no wise injurious.

3. The healing powers of the body sometimes effect a cure in cases of this sort without artificial aid.

4. The measures which the writer has found of greatest value in cases of this sort are, first, an aseptic dietary, that is, a dietary free from flesh foods and condiments of all sorts. The dietary should be rather meager, never in excess. The patient should live an out-of-door life, exercising



daily until the muscles become tired. The neutral bath for half an hour daily just before bedtime (93°-95° for thirty minutes) is helpful. A cold bath may be given in the morning on rising. Shower baths and other forms of the douche should be avoided. The rubbing wet sheet, the towel rub, or cold mitten friction (see Midsummer Number) may be employed advantageously.

**Water — Fruit-Coco — Position of the Body in Sleep — Amount of Sleep — Dill Pickles — Hair.**—A subscriber in Nebraska is anxious to know: "1. Is it consistent with perfect health to drink nothing but water? 2. Is fruit-coco a good substitute for tea and coffee? 3. What should be one's position when asleep? 4. How much sleep does a sixteen-year-old girl require? 5. Are dill pickles healthful? 6. What should be done for hair that splits at the ends?"

*Ans.*—1. Yes.

2. Yes, but as a food, not simply as a beverage.

3. That position in which he is the most comfortable.

4. Eight hours at least; nine if possible.

5. No. Pickles of all sorts are unwholesome.

6. Shampoo the scalp every morning with cold water. Brush the hair and scalp thoroughly every day. If dandruff is present and the hair inclined to be dry, apply two or three times a week a solution as follows: Resorcin, 1 dr.; glycerine, 2 dr.; castor oil, 1 dr.; alcohol, 4 oz.

**Nervousness.**—J. H. H., Kansas: "I am apparently well, do not use intoxicating drinks, meat, or tobacco; my stomach seems to be in good condition; although sleeping well at night, I am drowsy through the day; am nervous and despondent. 1. What causes this? 2. Would electricity benefit me? 3. What else is necessary for a cure?"

*Ans.*—1. You are doubtless suffering from gastric neurasthenia, or nervous dyspepsia. In this disease there is usually very little local pain or indication of indigestion. The trouble is not due to the formation of gas or acid in the intestine, but to the indigestion of proteids or albumin, the result of the formation of poisons which, being absorbed, disturb the nervous system.

2. Temporary benefit might be derived from the use of electricity.

3. A course of hyriatic treatment at a good sanitarium is the thing needed. In the absence of this, the following simple measures may be found helpful: At night upon retiring, apply over the stomach for five to eight minutes, flannels wrung out of very hot water. Afterward apply a towel wrung out of very cold water, and cover this tightly with flannel, to be worn during the night. In the morning take a cold bath of some sort, as cold mitten

friction, the wet-sheet rub, or some other form of cold bath, as directed in the Midsummer Number of this magazine.

**Fruit — Legumes — Neuralgia.**—J. C. M., California: "1. Does fruit slowly simmered without water or sugar lose its healthful, cleansing properties? 2. Can legumes be prepared in any way to agree with one who can take only dry foods? 3. What treatment would you prescribe for chronic neuralgia of the stomach?"

*Ans.*—1. No.

2. Yes. Cook thoroughly, removing the hulls; put through a colander, and bake in the oven till quite solid. Cut into slices and toast in the oven.

3. A bland dietary, consisting of buttermilk, thoroughly cooked cereal foods, sweet fruits. Condiments, coarse vegetables, and meats should be avoided. Improve the general health by daily cold bathing (cold mitten friction and the cold towel rub) and by fomentations applied over the parts to relieve the pain. (See Midsummer Number for description.)

**Chicken Breast.**—J. S. R., Massachusetts: "1. Please give some idea of the trouble known as 'chicken breast.' 2. This developed as the result of a bruise sustained at the age of seven. Does it indicate tuberculosis? 3. Would such a person be liable to transmit such a deformity or similar ones to his children? 4. Can you suggest a remedy? 5. At the age of twenty-five would an operation benefit him?"

*Ans.*—1. It is a deformity usually the result of mouth breathing from obstruction of the nostrils.

2. It does not indicate tuberculosis, and is probably due to nasal catarrh rather than the bruise.

3. No; but he is likely to have a feeble constitution, which he may transmit to his children.

4. It can not be removed in adult age. In early childhood it may be corrected by means of special exercises for strengthening the arms and chest.

5. No.

**Inflammation of the Bladder.**—W. H. W., Ohio: "1. Is sulphur water good for one with inflammation of the bladder of five-months' standing? 2. What home treatment will relieve it?"

*Ans.*—1. The copious use of water of almost any sort is good in such cases. Sulphur in the water does not increase its beneficial properties.

2. The prolonged sitz bath at 92°-98°, with a diet consisting of fruits, grains, and nuts, copious water-drinking, abstinence from flesh foods, exercising great care to avoid taking cold or becoming chilled. The morning cool bath carefully administered so as to prevent chilling, an out-of-door life, and, if necessary, irrigation of the bladder by a competent physician. Such a case usually requires skilled medical care.

## LITERARY NOTICES.

FROM Walter A. Wyckoff's article, "With Arctic Highlanders," in September **Scribner's**, we quote the following:—

"Icebergs dotted the blue surface of the Sound, and far into the haze of Baffin Bay we could see them drifting southward. The air was as still and clear as on a quiet, moonlit winter night at home, and the level sun rays streamed through in a glory of Italian pink. Enfolding all, as with the crowning benediction of a god, was the 'peace that passeth knowledge,' like the serenity of a soul that has won, through toil and storm, the strength and poise of enduring calm.

"It was well-nigh overwhelming. In ill-disguised necessity we turned from the vision to the sight of heaps of crumpled dead birds in the boat, and talked of shooting, and agreed that nowhere in the world was there promise of better sport than here. Then silence fell again. In spite of us, our eyes were drawn outward; and through all the peaceful beauty we felt once more the poignancy of its awful purity. He would be a man of spotless soul, indeed, and of assured faith, who, seeing the stainless loveliness of the scene, would feel no pang. Not one's self only, but one's world came there, as into the presence of the great white throne, and stood condemned in a stillness that was unbroken."

In the September **Forum** the well-known philologist, Prof. Max Müller, discusses in a genial yet trenchant way the causes of the present anti-English feeling among the Germans. He touches lightly upon the ancient feeling between the United States and England as compared with the present friendship, and reviews the relations existing between Germany and England since the time of Lord Palmerston. He shows how foolish and hysterical the attitude of the German press toward England is when contrasted with the common-sense behavior of the German government. He deprecates the rash statements that one reads in the newspapers of both countries, shows how the German and English characters supplement each other, and counsels that sweet reasonableness in all small things, which, though unseen, affects to so great a degree the larger concerns of life.

"One Hundred Years in the White House," opening the September **Ladies' Home Journal**, gives some highly interesting glimpses of the social life of the century, and of the home life of our presidents since the time the Adamses moved into

the Executive Mansion as its first occupants, in November, 1800. The "Romances of Some Southern Homes," in the same issue, pictures the most notable historic mansions of the South, and recalls the incidents which made them famous—their brave men and beautiful women. Some new anecdotes attract further interest to the beloved Phillips Brooks as a man and as a preacher. They are characteristic, and exceedingly well told. The pictorial features of the September journal include a page drawing of "Loiterers at the Railroad Station" as A. B. Frost sees them, "The Wonders of California Gardens," and the beauties of Yellowstone Park. There are numerous practical articles and much else that is helpful in the departments. The Curtis Publishing Company, Philadelphia. \$1 a year; 10 cents a copy.

The Crisis in China rightly occupies a large place in the September number of the **Missionary Review of the World**. Rev. Harlan P. Beach, Dr. William Ashmore, Dr. Arthur T. Pierson, Dr. D. Z. Sheffield, and others write of events, causes, and outlook in a cautious but intelligent and instructive way that leaves little to be desired. These articles are accompanied by three excellent maps and many unique and valuable illustrations showing characteristics of the country and people of Northeastern China.

Japan also has a prominent place in this number of the *Review*, Rev. Theodore N. McNair giving the missionary view of the Present Conditions in the Empire, and Fumio Matsunaga writing of the Present Needs of Japan from the Christian Japanese Standpoint. Rev. James S. Gale contributes an article on "Korean Ideas of God," and various missionaries write on various aspects of Educational Missions. This is an exceedingly attractive number of the *Review*. Published monthly by Funk & Wagnalls Co., 30 Lafayette Place, New York. \$2.50 a year.

There is no task so difficult as to teach pleasantly to pupil and preceptor. This has been the aim of Professor Henry S. Pancoast in his own classes and in his books on American and English literature, which are widely used in the best schools. His first magazine paper on his aims and methods appears in the **New Lippincott** for September. It is called "Young America at the Gates of Literature," and it deals clearly with a subject forced home upon all parents at this season.

## PUBLISHERS' DEPARTMENT.

### NUT FOODS AT THE WORLD'S FAIR: GOLD MEDAL WON.

WORD has recently been received in this country that the Sanitas nut preparations which were exhibited at the World's Fair at Paris, together with the cereal products of the Battle Creek Sanitarium Food Company, obtained the highest recognition from the Committee on Awards,—a gold medal.

These foods are recognized everywhere by food experts as unique, and unapproached by any other foods. They have been a genuine new departure in human dietetics. Nuts have long been treated as articles of luxury, and were seldom eaten by the well, and entirely forbidden to the sick. Laboratory research pursued through many years has at last overcome the difficulties, and presented to the world a series of the most delicate, toothsome, and digestible food products, which agree with the feeblest invalid, and even with delicate infants, and are capable of affording to the well a larger amount of readily available energy than any other foods known to science.

### FIFTY YEARS A VEGETARIAN.

THE Sanitas Nut Food Company has just received a letter from a woman nearly eighty years of age, residing in Connecticut, who writes that she and her husband, almost ninety-three years old, have been vegetarians and food reformers for fifty years. Her husband is a physician, and has made a careful study of dietetics, and is glad to find in the Sanitas nut foods such excellent substitutes for meats.

SINCE our last issue, we have received from Iowa an order for more than 15,000 copies of the Mid-summer Number of GOOD HEALTH.

THE child and its education and training is ever a subject near to parents' hearts. We wish again to call the attention of our readers to a book along this line, "Studies in Home and Child Life," by the late Mrs. S. M. I. Henry. Those who are reading "My Mother's Life," a story of the career of this wonderful woman, by her daughter, Mrs.

## A non-poisonous antiseptic mouth wash,

one that can be safely left on the bath-room stand, is LISTERINE. Composed of ozoniferous essences, vegetable antiseptics, and benzo-boracic acid, LISTERINE is readily miscible with water in any proportion. 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.

An ounce of LISTERINE to a pint of water will be found sufficiently powerful for the general care of the deciduous teeth of children, while a solution composed of one part of LISTERINE, and three parts of water, will be found of agreeable and thoroughly efficient strength for employment upon the brush and as a daily wash for free use in the oral cavity in the care and preservation of the permanent teeth. Many users of LISTERINE employ it in its full strength and enjoy its pungency.

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#### Cure for Scandal.

HERE is a cure for a terrible disorder of the mouth, commonly called "scandal:" "Take of 'good nature' one ounce; of an herb called by the Indians 'mind your business,' one ounce; mix these with a little 'charity for others,' and two or three sprigs of 'keep your tongue between your teeth.'

"Application: The symptoms are a violent itching of the tongue and roof of the mouth, which invariably takes place while you are in the company

of a species of animals called gossips. When you feel a fit of it coming on, take a spoonful of the mixture, hold it in your mouth, which you will keep closely shut till you get home, and you will find a complete cure. Should you apprehend a relapse, keep a small bottleful about you, and on the slightest symptom repeat the dose."—*The Household*.

HERE is a bit worthy of the famous Mrs. Partington:—

*Applicant*— "Are you the judge of reprobates?"

*Judge*— "I am the judge of probate."

*A.*— "Well, that is what I mean, I guess. My husband died detested, and left me with two little infidels, and I want to be appointed their executioner."

### TOMMY'S DREADFUL DREAM.

TOMMY was sleeping like a top,  
When, to his great amazement,  
An angry duck, with knife and fork,  
Came tapping at the casement.

"Be off, be off, you savage bird,  
Or else I'll call my mother."  
The duck replied in hollow tones,  
"Why did you eat our brother?"

"Revenge is sweet, and you must die,  
No time is this for reasoning,  
The oven 's ready to a turn,  
The cook has made the seasoning.

"They're busy now with Harry Ford,  
He's to be cooked for dinner,  
And then we'll roast young Jackie Smith,  
Who feels a wee bit thinner."

"O, let me live!" cried Tom, aghast,  
"At least till I am fatter."  
"So long as you're not old and tough,"  
Said they, "it does not matter."

"I'll never eat roast duck again,"  
The culprit sighed, repenting;  
The cook, he seized and trussed him well  
Without the least relenting.

They laid him neatly in a pan,  
With tiny dabs of dripping;  
The little ducks looked on, and then,  
For joy, they fell to skipping.

The oven door was open'd wide,  
When Tommy, loudly screaming,  
Gave a great jump, and found—hurrah!  
He had been only dreaming.

— Alfred Mahany, in the *Vegetarian*.

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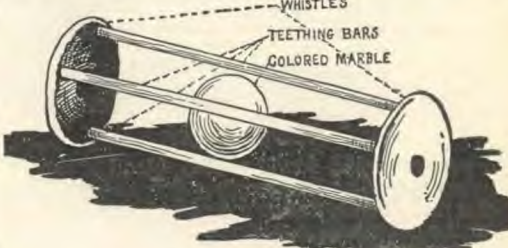


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Flowers are Nature's sweetest gift to man. Their mission is to extend the kingdom of love, beauty, fragrance, and happiness. The sweet presence of flowers is always welcome, but never so much so as in the dreary days of winter. It is then that floral treasures most appeal to us, and every home should possess at least a few winter-blooming plants. It is not difficult to do this.

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No description can do adequate justice to the beauty of the Freesia. The flowers are two inches long, and about the same in width, shaped like miniature Gladioli, and borne in clusters of six to ten, on depressed horizontal scapes. The body of the flower is pure white, lower segments spotted with yellow. The perfume is most delicious. The cultivation of the Freesia is of the simplest, as the bulbs require only to be potted, watered sparingly at first, placed in a sunny window, and watered more freely as growth progresses. To have the best results, the bulbs should be planted early in the fall—this month if possible. Freesia bulbs are worth five cents each.



### **SOMETHING IN REGARD TO "HOW TO GROW FLOWERS."**

Each number contains 36 large pages, printed on fine book paper, beautifully illustrated. It tells when, how, and what to plant, when and how to prune, when and how to mulch, how to protect in winter, how to get rid of insects, water and heat needed, how to bed out plants, the best varieties, about floral decorations, and gives complete directions for having success with flowers. It is the only floral paper not run by commercial florists. *How to Grow Flowers* is a work of art, all the illustrations made from photographs, thus showing flowers as they actually are. The great merit of the magazine, though, is its practical helpfulness to all who love and grow flowers. It is an indispensable aid, whether you have a single plant or a large collection. No flower lover can afford to be without it.

### **Our Magnificent Clubbing Offer in Full.**

For only \$1.00, the regular price, we will send you GOOD HEALTH one year, and in addition will forward "HOW TO GROW FLOWERS" one year, and a choice collection of twenty Freesia bulbs. This offer is one unparalleled in liberality, and can not be kept open long. Address—

**Good Health, Battle Creek, Mich.**

If you are a subscriber, send us one new subscription, and we will send you the bulbs and *How to Grow Flowers*.

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**Dr. J. H. KELLOGG,**

Surgeon-in-Chief  
Battle Creek Sanitarium.

(From "GOOD HEALTH," December, 1899.)

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Underwear**

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**Marquette Manufacturing Co.**

(Marquette Bed Co.)

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Manager.

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The surface of the rubber used on these gloves is of a peculiar finish, and allows of a firm hold on ligatures and ligaments.

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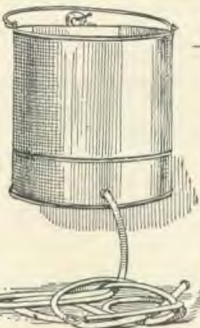
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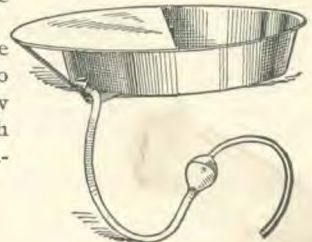
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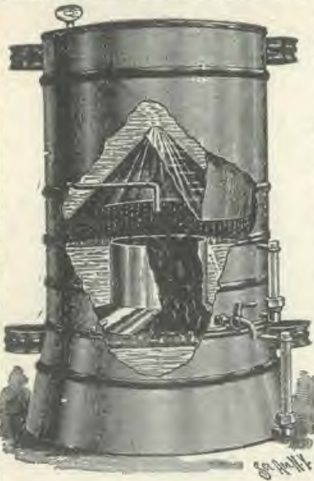
Any amount of water can be used, the water running out as fast as it runs in. To start the water running, close the rubber tube by folding it below the bulb, and then squeeze the bulb, which will at once fill with water when released. Then open the tube, and the stream will continue to flow till the pan is empty.



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Are partly digested, all the wheat starch having been turned toward sugar.

When taken into the stomach they are instantly assimilated and readily transformed to blood, then *bone, muscle, nerve, and tissue*. They tempt the palate and

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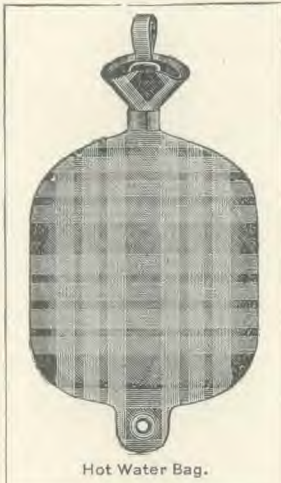
These foods are 93 to 95 per cent nutrition.

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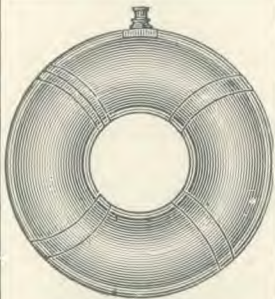
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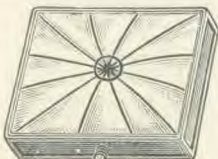
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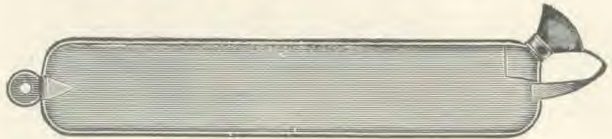
Hot Water Bag.



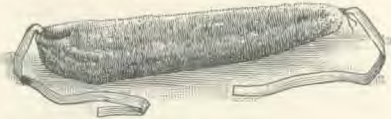
Invalid Air Cushion.



Carriage Cushions.



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No. 1, sateen cover.....	Seat. 16x16    Back. 16x16    7.50
No. 2, “ “.....	16x16    16x18    7.75

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"The Niagara Falls Route."

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EAST	8	12	6	10	14	20	36
	*Night Express	† Det'l Accom.	Mail & Express	* N. Y. & Ros. Sp.	* East'n Express	* J'n Accon.	* Atl'tic Express
Chicago	pm 9:35		am 6:45	am 10:30	pm 3:00		pm 11:30
Michigan City	11:25		8:45	pm 12:08	4:40		am 1:20
Niles	am 12:40		10:15	1:00	5:37		2:30
Kalamazoo	2:10	am 7:30	pm 12:10	2:08	6:52	pm 6:00	4:10
Battle Creek	3:00	8:10	1:00	2:42	7:25	6:43	5:05
Marshall		8:38	1:00	3:09	7:51	7:10	5:30
Alton	4:00	9:00	1:50	3:30	8:11	7:30	5:52
Jackson	4:40	10:05	2:35	4:05	8:50	8:15	6:40
Ann Arbor	5:35	11:10	3:47	4:58	9:43		7:45
Detroit	7:15	pm 12:35	5:30	6:00	10:15		9:15
Falls View					am 4:57		pm 11:12
Suspension Bridge				am 12:20	5:30		4:40
Niagara Falls				3:13	10:00		8:40
Buffalo				9:15	12:15		10:45
Rochester				9:05	pm 4:50	am 2:50	
Syracuse				pm 1:30	6:15		7:00
Albany				12:16	6:15		7:40
New York				9:00	9:00		10:34
Springfield							
Boston							

WEST	7	17-21	3	5	23	13	37
	*Night Express	* N.Y. Ro. & Ch. Sp.	Mail & Express	* News Express	* West'n Express	* Kat. Ac' n.	* Pacific Express
Boston		pm 2:00			pm 3:30		pm 6:30
New York		4:00			6:00		pm 12:10
Syracuse		11:30			am 2:00		pm 12:25
Rochester		am 1:20			4:05		2:25
Buffalo		2:20			5:30		3:50
Niagara Falls					6:02		4:32
Falls View					6:34	pm 4:35	5:05
Detroit	pm 8:20	8:25	am 7:15		pm 12:40	6:45	11:20
Ann Arbor	9:43	9:23	8:40		1:38	6:45	am 12:30
Jackson	11:15	10:20	11:05	am 3:30	2:40	7:30	1:35
Battle Creek	am 12:40	11:44	pm 12:25	4:35	3:50	9:38	3:00
Kalamazoo	1:40	pm 12:10	1:20	5:15	4:38	10:00	3:35
Niles	3:10	1:22	3:25		6:00		6:45
Michigan City	4:26	2:20	4:45		7:05		6:01
Chicago	6:30	4:00	6:40		8:35		7:50

\* Daily. † Daily except Sunday.  
 Trains on Battle Creek Division depart at 8:05 a. m. and 4:10 p. m., and arrive at 12:40 p. m. and 6:15 p. m. Daily except Sunday.  
**O. W. RUGGLES,** General Pass. & Ticket Agent, Chicago.  
**R. N. R. WHEELER,** Ticket Agent, Battle Creek.

## Chicago & Grand Trunk R'y.

E. W. Meddaugh and Henry B. Joy, Receivers.  
 Trains arrive and leave Battle Creek.  
**Time Card in Effect June, 1900.**  
**WEST-BOUND FROM BATTLE CREEK.**  
 No. 9, Mail and Express, to Chicago..... 12.15 P. M.  
 No. 1, Chicago Express, to Chicago..... 8.30 A. M.  
 No. 3, Lehigh Valley Express, to Chicago... 3.50 P. M.  
 No. 5, International Limited to Chicago, with sleepers..... 2.15 A. M.  
 No. 75, Mixed, to South Bend..... 8.30 A. M.  
 Nos. 9 and 75, daily, except Sunday.  
 Nos. 1, 3, and 5, daily.

**EAST-BOUND FROM BATTLE CREEK.**  
 No. 8, Mail and Express, to Pt. Huron, East, and Detroit..... 3.45 P. M.  
 No. 4, Lehigh Express, to Pt. Huron and East. 8.27 P. M.  
 No. 6, Atlantic Express, to Pt. Huron, East, and Detroit..... 2.25 A. M.  
 No. 2, Lehigh Express, to Saginaw, Bay City, Port Huron, and East..... 6.50 A. M.  
 No. 74, Mixed, to Durand (starts at Nichols yards)..... 7.15 A. M.  
 Nos. 8 and 74, daily, except Sunday.  
 Nos. 4, 6, and 2, daily.

**D. M. HOWIE, Ticket Agent,**  
**BATTLE CREEK.**

## The Cincinnati Northern Railroad Co.

### TIME TABLE NO. 3.

IN EFFECT SEPT. 24, 1899.

Trains Pass Battle Creek as follows:

#### WEST-BOUND.

No. 21, Mail and Express	6.58 P. M.
No. 23, Accommodation	2.07 P. M.
No. 27, Local Freight	8.25 A. M.

#### EAST-BOUND.

No. 22, Mail and Express	8.25 A. M.
No. 24, Accommodation	1.45 P. M.
No. 28, Local Freight	5.30 P. M.

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 236 S. Clark St., Chicago.

**W. D. MURDOCK,**  
 Ass't Gen'l Pass. Agent,  
 MEXICO CITY, MEX.

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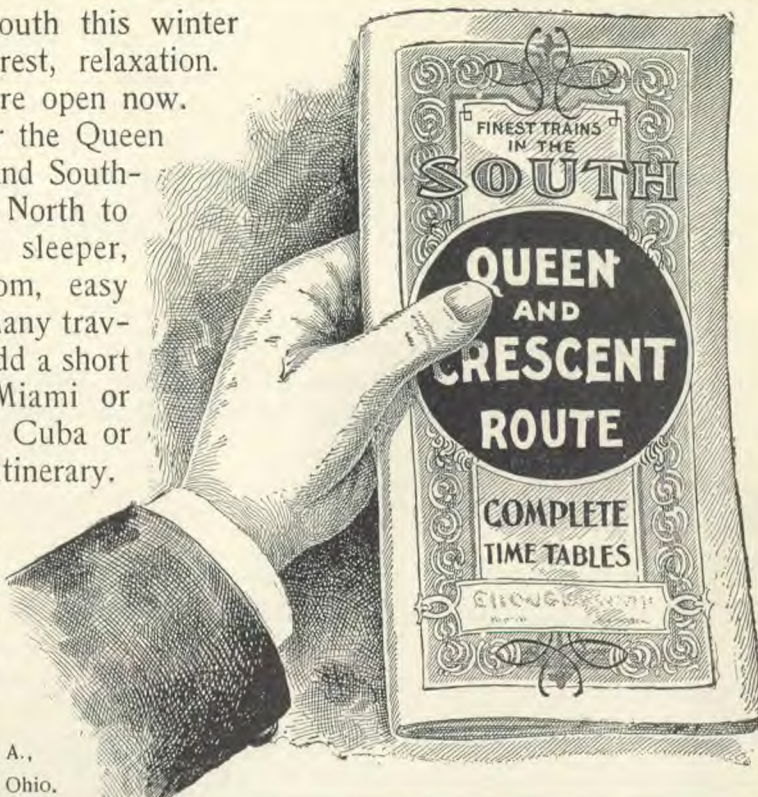


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 In Health and Disease

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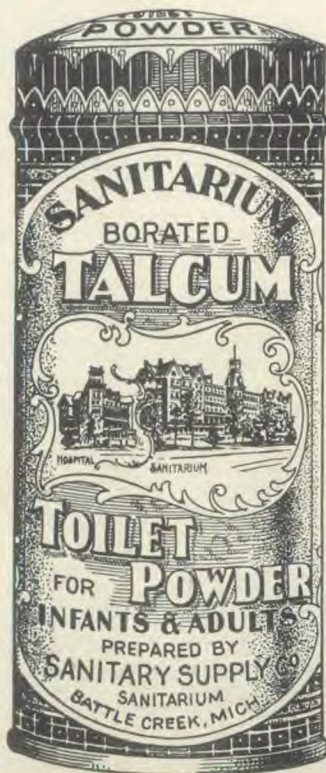
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