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A VEGETARIAN SURPRISE (See page 294)

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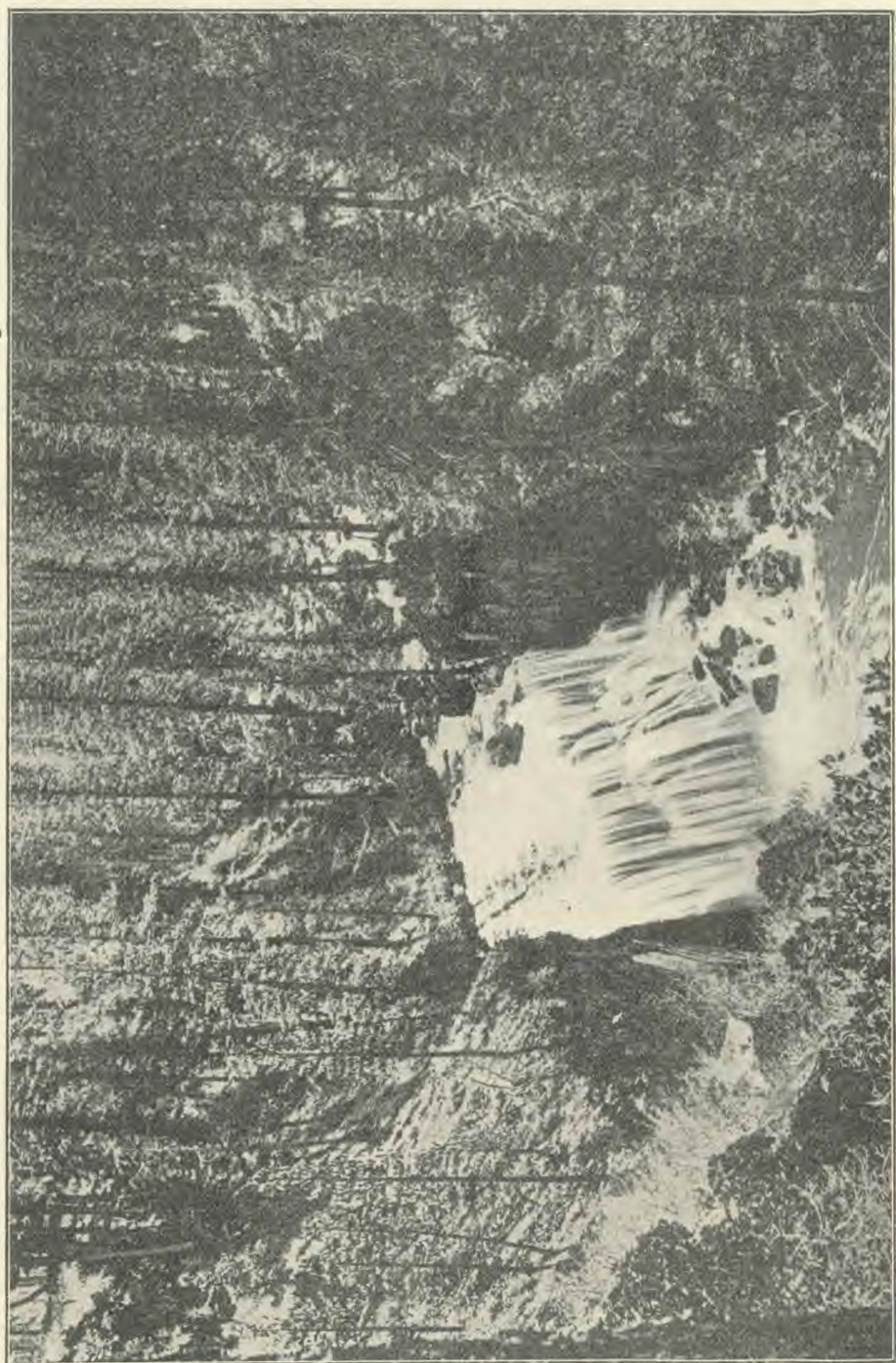
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PACIFIC HEALTH JOURNAL

A SOUND MIND IN A SOUND BODY

VOL. XVII.

OAKLAND, CAL., DECEMBER, 1902.

NO. 12.

Body Defenses*

(Concluded.)

By J. H. Kellogg, M. D.

[Physician in Chief of Battle Creek Sanitarium.]



WHAT is it that brings a man down? It is not germs or any of his natural environment, but wrong habits of life. As long as a man lives in accordance with the laws of health, he can live anywhere on earth where it is necessary for him to live. There is nothing can make him sick. God has not created any condition in the world that makes it necessary for him to be sick. All sickness comes as a consequence of man's wrong-doings. Then you may say, "If a man lives right, he will live forever." The human race has deteriorated to such a degree that there is one condition which is always found in every man, that will kill him finally. There is one germ that lives in a man from the moment of his birth to his death. When a baby is born into the world, its alimentary canal is perfectly clean; there is not a germ anywhere in his body. But in thirty-six hours, when the fecal matter is examined, there is found a germ there. It is found in the colon of every single animal. I believe that is the germ of old age, that kills it. And it has been shown that when this germ is cultivated in a test-tube, and the contents are fed to a rabbit, the consequence is that the liver be-

comes hardened, and, if the feeding is continued long enough, other parts of the body harden. It is the hardening of the arteries that causes old age. As they shrivel up, the blood supply is cut off from parts of the body. That is arterio-sclerosis. The old man shrivels up; he has dried up. His heart has dried up; his tissues are dried up; and it is this colon germ, the barn-yard germ—that is found in great quantities in milk—that is the cause of cholera morbus, and is the germ of old age.

There was a time when this germ could not live in the human body. When Adam was made, he was so strong he could kill that germ; but as a consequence of sin, the body lost its germicidal power, and so the barn-yard germ is found in every human body producing poisons, so if there were no other cause of death, this arterio-sclerosis would kill us. Now this disease is found so frequently that insurance people are getting to consider it the greatest foe of life insurance. The age of a man is determined, not by his genealogy, but by his arteries. One man is as old at fifty as another is at seventy-five. Our old age is a result of our bad habits of life. Most people are as old at forty as they ought to be at seventy-five or eighty.

During starvation an animal's tem-

*Extracts from one of the doctor's talks.

perature drops a few degrees, say from ninety-eight to ninety-five, and stays there. It does not keep on dropping day after day. Nature drops the temperature as low as she can, to keep the body alive. Day after day it goes right on at that rate, until by and by, after perhaps forty to eighty days, as the case may be, all of a sudden the temperature goes down, and the animal dies. The body holds itself out to the very last minute. That is just what the race is doing. The race and the individual are alike. So we have been holding on fairly well for some centuries, until now we have come to a time when we have many indications that the time is short—that we have come to the last century, the last age. There are many indications of it, and here we see the tangible proof that the race is going to pieces, and the end is not very far off. We can not hide our eyes from the fact that the race is in a rapid decline; and that rapid decline in the last twenty-five years shows that the constitution of the race is gone, and we have come to the point where in a few score of years pandemonium will reign, and all sorts of maladies will infect the earth, so that it would be impossible to maintain civilized society. Insanity is breaking loose in a great variety of ways. Men and women are rushing after pleasure, after wealth, which is insanity. And the people shoot their rulers for no reason at all. There are men who have a mania for killing somebody, and it is cultivated in the slaughter-house, and at the dinner table. Imbecility and lunacy are being cultivated in our habits of life. The race is going to pieces. We can see it in the race itself. We can see it in the world about us.

Now let us close with this thought: If we don't want to be sick, the thing we need to do is to cultivate health instead of disease. We have no right to ask God to heal us of disease when we are making ourselves sick. God is already doing all He possibly can for us, under the circumstances. Should He do anything more, He would stultify Himself, because it would be to pronounce a blessing upon sin. A man uses tobacco; why don't he die? God is working hard for that man, so that he will live long enough to quit using tobacco. The man prays to God, "Heal me of this pain in my heart." The only answer he will get will be, "Quit using tobacco." God is working miracles for him to keep him alive. For God to do something extraordinary in that case would be to pronounce a blessing on smoking. And what is true of smoking is true of tight dressing, heavy skirts, and rich food. If God heals you by any extraordinary proceeding, He pronounces a blessing upon your wrong-doing, and God can not do that. He is already doing all He can, and you are tearing it down.

If I have a sore on my hand, God will heal it for me if I let it alone. But suppose I should keep scratching it off every day, taking off what God had built on, how long would it take to heal?—It would never be healed. God Himself would not heal it. He can't do it, because it would not be consistent. God is a consistent Ruler, and one of the necessary things He must have is a consistent rule. God is the most limited because He is the most perfect Ruler. I can sin; God can't. I can lie and steal; God can't. I can do many things that God can't,

because He is perfect. God can not be inconsistent or unreasonable, the least bit. He has to be continuously perfect all the while. There is continuity in God's work. You say, "Why don't an apple fall down sometimes, and up sometimes?—Because the first time God ever did a thing He did it the best way. It can't be im-

proved; so it can't be changed. The first time God ever did a thing He did it perfectly, so it has always been the same way, under the same circumstances, because there is no chance to improve it in any way. So God is in all His work consistent, and there is a continuity or continuousness in His operations.

Typhoid Fever

(Continued.)

By A. N. Loper, M. D., Sanitarium, Cal.

TREATMENT.

IN caring for a case of typhoid fever, it is important to bear in mind a few cardinal points in regard to the nature of the disease. First, it is an infectious disease, due to germs which have found access to the system along with the food or drink. Second, the field of activity of these germs is in the alimentary canal, at or near the juncture of the large and small intestines, and in the mesenteric glands in the adjacent vicinity. Third, the discharge from the bowels, bladder, skin, and mucous surfaces of the mouth and nose are, or may be, laden with these germs, which, if by carelessness or otherwise are permitted to enter the alimentary canal of the attendants or other individuals, may produce new cases, and thus an epidemic soon prevail. Fourth, the danger of a fatal termination in a case of typhoid fever may come from the high temperature, the possibility of hemorrhage from the ulcerated walls of the intestines, the perforation of the intestinal walls, giving rise to fatal peritonitis, the accumulation of poisons produced by the

bacilli, which may cause profound disturbances of the cerebro-spinal nervous system, causing serious changes in the nutrition, and in many cases heart failure and other complications, such as pneumonia, kidney disease, etc.

Our treatment, therefore, should be so directed as to successfully meet these conditions and prevent their protracted continuation.

If we have opportunity to begin treatment very early in a case of typhoid fever, much good may result from the thorough evacuation and cleansing of the alimentary canal. Then if a continued mild disinfection of the bowels could be maintained, along with other rational treatment, doubtless the usual run of typhoid cases would be considerably shortened.

The success obtained by the Woodbridge method of treatment is due to this principle of continued evacuation and disinfection of the intestinal tract.*

*The basis of the Woodbridge method is the use of tablets or capsules containing podophyllum, mercurous chloride, guaiacol carbonate, menthol, thymol, and eucalyptol, in certain proportions, in small but frequently repeated doses, and continued according to certain specifications.

Therefore, in the beginning of the treatment of a case of typhoid fever a good dose of Epsom salts, say one to one and one-half heaping tablespoonfuls in a glass of water, should be given in four divisions, one every half hour until the whole is taken; and if the treatment is begun very early in the course of the disease, it may be well to precede the cathartic by a good lavage, in order that the stomach may be cleansed of the reinforcement of germs that may be lodging there. A large enema should follow three or four hours after the administering of the cathartic. Copious draughts of hot water should be drunk, and, if taken early in the disease, a hot blanket pack may follow a thorough evacuation of the alimentary canal, in order that the skin may take an active part in the elimination of the accumulated poisons from the system.

In combating the rising temperature we have in cool or cold water nature's most powerful, and yet her most delicate, agent. We have in cold water not only an ideal remedy for reducing temperature, but also a remedy par excellence for the tonic or stimulating influences that typhoid patients are likely to need. The white blood cells being the standing army of the body by which the invading enemy—the typhoid bacilli—are to be met, it is evident that that treatment will be in order which will call into activity the largest number of white cells which can possibly be brought to bear upon the invading host of microbes.

It has been satisfactorily demonstrated that by the proper use of cold water this result can be brought about. The large cold compress applied to the abdomen for from ten to thirty minutes at a time is a very serviceable

means of accomplishing this double purpose of rallying the vital forces and at the same time lowering the temperature. It is usually well to precede the use of the cold compress two or three times a day by a ten-minute application of hot fomentations to the abdomen. Hot, cool, and cold sponge baths will also be found serviceable, according to the different conditions, in quieting the nervous system and reducing high temperature.

Another most desirable means of lowering high temperature in typhoid cases is the graduated cool or cold bath. In this the patient is put into the bath at a temperature about 100°, and then this temperature is lowered one degree every minute, by the addition of cold water, until the bath temperature stands at 92, 90, 85, or lower, as the conditions may indicate, the attendant vigorously but carefully rubbing the surface of the body continually, thus keeping the blood to the surface and preventing shock or a feeling of chilliness. The cool wet-sheet pack may be used with almost the same good results, if the circumstances make it more convenient. The patient may be kept in the bath or wet-sheet packs until the temperature is brought down to 101°, or lower, if best. We may bear in mind that a temperature of 101 to 101½° may be considered a normal fever temperature, and when we have brought the patient's temperature down from 104 or 105° to 101 or 101½°, we may discontinue the treatment for the time being. Another very useful antipyretic treatment is the cool or cold enema, repeated if necessary two or three times in succession. At least one neutral enema should be given daily, for the purpose of cleansing the bowels.

In many cases where the nervous system is profoundly disturbed, the use of fomentations or alternate hot and cold applications to the spine will be found of great service. The use of alcohol and witch-hazel, equal parts, with the same amount of water, used for sponging the spine and the skin over prominent bony portions of the body which are likely to develop bed sores, will also be found a valuable preventative against these unpleasant complications.

Very little or no internal medication will be necessary in most cases. In some individual cases it may be advisable to use some mild internal antiseptic remedy, such as zymocide or listerine, in one-fourth teaspoonful doses, given in one-half glass of water every three or four hours.

The feeding of typhoid fever patients is of vital importance in considering the care of a case. Some good authorities recommend the withholding of food entirely for a week or ten days. Others will advocate full feed from the beginning, but when we remember the nature of the diseased conditions of the digestive organs and the irritable condition of the alimentary canal and the possibility of increasing the inflammation by improperly selected food, we are led to believe that the following is a safe course to pursue in providing a diet best suited to typhoid fever patients. The first two days total abstinence from food is advisable; the next three or four days an entirely fruit diet, preferably cooked fruits, such as peaches, pears, grape juice, berry juice, etc., and the next few days some form of grains, such as gluten gruel, or gruel and malted nut broth, may be added to the fruit diet. If there is great trouble from bloating

of the bowels, fruit may have to be withheld for a short time during the second week of the disease.

Discharges from the bowels and kidneys and water used in bathing the patient should all be well disinfected with bichloride of mercury (one tablespoonful of a saturated solution to every quart of water, or substance, to be disinfected), chloride of lime or carbolic acid, before being finally disposed of. Then it is well to have a suitable vault or receptacle dug at some distance from the house, in which all discharges may be emptied, and daily a light covering of dry earth thrown into this vault. Of course if city sewerage is accessible, discharges, etc., may be emptied into the same, after being allowed to stand one hour after the disinfectant has been added.

To prevent the spread of the disease, all the attendants and other persons in the household should not use unsterilized water or milk, and should avoid eating any food in the sick room, and also avoid going to their meals after having waited upon the patient without first washing and disinfecting the hands. They should also see that very strict sanitary rules are observed in the kitchen, pantry, back yard, and about the premises in general.

DR. GAETANO'S tests have convinced him that a 20 per cent alcoholic solution of acetic acid is the most efficient disinfectant at our command for the treatment of wounds. In addition to its power of antiseptics, this mixture presents the very great advantage of making the wound as dry as possible, which in itself renders invasion by germs unlikely.

Tonic Measures

By H. E. Brighthouse, M. D.

[Of the San Francisco Sanitarium.]

THE COLD BATH.



THE cold morning bath is a means within reach of every one for increasing vigor. It is a most powerful aid to the preservation of health. Its benefits are generally recognized, and a few people succeed in obtaining all the benefits ascribed to it. But many have given it a trial and discarded it as being unsuitable in their case. For a time they heroically and conscientiously took a cold spray or plunge every morning. The result was disappointing, if not actually harmful. After the bath they were cold more or less all the day. Instead of increasing in vigor and the buoyancy of renewing health, as anticipated, they became weak, nervous, and irritable.

Yet it was not the morning cold bath that was at fault, but its management. The morning cold bath may be a blessing even to one who has had such apparent poor results. The very fact that the system can not react to cold is indicative of lowered vitality and inability to contend with diseased conditions, and is the strongest evidence that the system should be trained to respond to cold. Training the system to a better reaction is likewise training it to increased resistance against disease invasion.

We speak of training the system to reaction to cold. The process is as literally a training process as is physical training for development of the muscular system. We do not expect

muscular endurance and strength without a more or less lengthy and tedious course of rigorous training, and the greater the strength and endurance required, the more systematic and vigorous is the training given. So with the ability to react to cold treatment. Every blood-vessel, muscle, and nerve must be trained to greater activity. When the blood is impoverished, it must be built up to its normal quality, because to obtain perfect reaction there must be perfect blood. The elasticity of the lungs must be increased and the breathing capacity augmented. There being so much to be accomplished, one must patiently and systematically persevere. If one does not acquire the power to react to vigorous cold treatment in a few weeks, it does not indicate that the treatments are not good, but that more persistent efforts gradually to enure the system to the cold are required.

Beginning with mildest cold measures and in some instances to limited areas of the body only, the intensity of the treatment should be increased only as fast as the power to react is developed. Eventually the cold shower and cold plunge will be taken with only the most pleasant after effects. A feeling of vigor, lightness, and buoyancy is felt all the day, instead of the depression and chilliness that resulted from taking the same vigorous treatment before the system was trained to it.

Ordinarily the temperature of the room should be about seventy-five to

eighty degrees for taking the cold bath, but those whose power to react is feeble, or who are very sensitive to cold, require a warm room. Success in getting good reaction depends much on the state of the one taking the bath. The best time for the bath is immediately on arising from bed, while still warm. If cold, let a hot spray or hot foot-bath be taken before the cold treatment. If necessary stand in water as hot as can be borne while taking the cold treatment.

Reaction should be encouraged afterward by exercise. If for any reason exercise can not be taken, reaction should be encouraged by warmth—warm clothing, a warm room, or returning to bed after the bath. And yet these artificial means of securing reaction, if depended on, retard the development of the power of reaction. While it is necessary, for the time, to assist reaction by these artificial means, the sooner they can be discarded and reaction induced simply by exercise, the better will be the result. After a cold bath it is very unwise to stay in a cold room.

When only mildest measures can be borne, one of two methods may be followed, as best suits the individual case. Sponging and vigorous friction may be given at first with moderately cold water, the temperature of the water used being reduced a degree or two every day or every few days, till very cold water (temperature sixty to fifty degrees) is tolerated; or very cold water may be used from the commencement to limited areas of the body only, as the face or chest, other portions of the body being subjected to the sponge as rapidly as endurance is cultivated. Friction mitts made of rough material are excellent for ad-

ministering the sponge. Turkish toweling makes fair mitts; moreen also makes good mitts. Reaction is encouraged by the mechanical effect produced by their roughness.

Having become accustomed to the sponge at a temperature of sixty to fifty degrees, the spray or plunge may be attempted. There is choice of two methods here also. At first the temperature of the water used need be only moderately cold. If possible, precede by a hot shower. The other method is to begin with a very cold spray, of very short duration, one to five seconds only. It requires a longer spray and more friction after the spray to secure a good reaction from water only moderately cold than it does from cold water. If one can stand the temperature of the water no lower than seventy-five or seventy degrees, it will take much more friction to secure a glow than if he could take water at sixty or fifty degrees. Some will endure the very cold, very short sprays, while others must begin with more moderate sprays, also short at first, then prolonging them to twenty or thirty seconds. When good reaction is secured with the moderately cold spray, of twenty to thirty seconds' duration, the very cold short spray may be attempted. By the time one has trained the system thus far, he will find he has gained materially in health and vigor.

During this course of training, it may possibly be found of advantage sometimes to omit the treatment several days at the time. If there develops any lassitude after the bath, or the reaction is not so good as it was, a rest or a temporary return to milder measures is helpful.

1436 Market St., San Francisco, Cal.

Our Duty to Cooperate with the Health Giver. No. 6

By W. S. Sadler

THE INTERVAL BETWEEN SEED-TIME AND HARVEST.

"AND let us not be weary in well-doing; for in due season we shall reap, if we faint not." Gal. 6:9. There is always a period of delay between the planting of the seed and the reaping of the harvest. This interval between the sowing and the reaping is arranged by a kind Providence to test the faith of the righteous in the good seed—the Word—and to give the wicked a chance to destroy the plants of sin before they bring forth their full harvest of destruction. But, instead of thus utilizing their opportunity, transgressors too often take advantage of this providential delay to plunge into greater sin and accomplish more wickedness. "Because sentence against an evil work is not executed speedily, therefore the heart of the sons of men is fully set in them to do evil." Eccl. 8:11.

The interval between seed-time and harvest, to the one who is conscientiously sowing for physical and spiritual health, serves as a sort of gymnasium for the development of his faith, and the Scriptures exhort such to "be not weary in well-doing; for in due season we shall reap, if we faint not." It is often during this interval that careless and indifferent transgressors point the finger of scorn at the conscientious health-seeker, saying: "You don't look half as well as we do. We are better off than you. Your conscientious obedience to the laws of health is doing nothing for you. Come, turn your back on your

light and truth, and go the ways of transgression with us."

And not infrequently the contemplation of these things is observed to affect the righteous as it did the psalmist. When he saw the prosperity of the wicked, that they seemed to have few plagues, that their eyes stood out with fatness, he confesses that his feet well-nigh slipped; but when he went into the sanctuary, and there caught a glimpse of the harvest the transgressors would surely reap as the result of their sowing, then he said, "Surely thou didst set them in slippery places; thou castedst them down into destruction." Ps. 73:18. And so the one who is patiently sowing for health may become discouraged and backslide, and thus fail to reap the precious harvest.

On the other hand, the mercy and wisdom of this interval between sowing and reaping are shown forth when we recognize that during this delay the transgressor may repent and by faith claim Christ as His harvest-bearer,—begin to obey the laws of life, and thus make it possible for him to avert his full harvest of physical and spiritual disease. The Holy Spirit is ever striving with the transgressor to lead him to repentance, so that he may not be compelled to reap his just harvest of sin and iniquity; while the lying spirit of the wicked one is continually striving with the righteous man, seeking to discourage him and cause him to become weary in well-doing, and thus to lose his blessed harvest of health and happiness.

Health in the Tropics

By J. E. Caldwell, M. D.

No one can tell why some people endure the humidity and heat during residence in the tropics better than others. As a rule, those who perspire freely and enjoy good digestion suffer least in the tropics. But it is certain that most men and women brought up far from the equator do not enjoy as good health in a hot climate as they do where winters are frosty.

It is very discouraging, indeed, for one whose business is in the tropics to discover his strength waning. As a rule, during the first two or three years the strength and energy are not greatly diminished, unless the locality is one in which fevers are common, namely, in flat, low-lying swampy districts. But later one finds he has not so much endurance as before. Little by little and insidiously the weakness increases, constantly exhausting one's reserve stock of vital energy, until digestion is impaired, and the amount of food usually eaten begins to cloy. Then the common results of slow digestion or indigestion follow. One feels habitually tired, doing tasks easily only when he is whipped up by excitement or a strong will or a stimulating diet. Doubtless the large number of physical wrecks from intemperance, so characteristic of tropical countries, may be understood from the fact that the climate tends to produce a desire for something to stimulate. Though there are good physiological reasons why a diet free from heat-producing elements is best in the tropics, there is no less meat eaten there by many than in the temperate

zones. Indeed, some live largely on flesh meats, tinned meats.

Remaining in the tropics, the individual suffers from occasional attacks of apepsia. In time he finds his brain power waning, and at times while talking, either in his own or in an acquired language, he can not think of the word he wishes to use. A mental blank will here and there separate segments of thought which ought to be in succession.

After one reaches this condition he is peculiarly susceptible to all adverse conditions, as poor food, bad water, overexhaustion, changes of weather, loss of sleep, mental worry, malarial surroundings, or epidemics. Finally the physical strength may become so reduced that one can not take enough physical exercise to enjoy good health in any climate.

This is a sad picture, but, even then, a light diet of the most easily-digested foods, tonic baths, repeated once or twice daily, occasional massage, and care to sufficiently limit the amount of work so as to avoid a feeling of excessive exhaustion, may enable one, in the absence of epidemics and accidents, to continue existence for a long time without severe suffering. But under conditions named the risks are great and the dangers many.

It will be seen by all who understand something of the laws of health, after a perusal of this article, giving the common experience of those who go from temperate climates to reside in the tropics for a long time, that by a strict observance of the laws of

health from the first, including the slowing down of the rate of doing mental and physical work, to correspond with environments, the evils usually resulting from residence in hot countries may be avoided. At least they be held in abeyance for a long time.

There are some who have spent a few months or even a year or two working in hot countries who think their experience gives them a right to speak with confidence. These talk lightly of the dangers to be met. Perhaps a longer residence would have enabled them to sympathize more fully with those who have suffered.

I would not have any one suppose that a home in the tropics is a thing universally dreaded, or that all meet the same experiences. Indeed, some live there from choice, and find a fascination in the balmy air at evening after the sun has set, the beautiful moonlight nights, the outdoor life commonly led, and the ease with which choice fresh fruits may be procured at all seasons of the year. Many who become dissatisfied after a residence there, move away, only to return again after a few years, finding the mild, genial climate and people of the tropics more agreeable to them than the strenuous life necessary where surrounded by fair-faced rivals, where chilling winds make heating stoves a necessity. Indeed, there is much to enjoy in an island home in the tropics, and if one is so situated that he can have some leisure he may find a few years' residence there a source of delight.

In many tropical climates the actual temperature as shown by the thermometer is but little higher than the

summer temperature found in some places in the temperate zones. In some cases it is not so high. I believe the climate of the tropics is hard to bear, owing chiefly to two elements, namely, humidity of atmosphere and monotony of temperature. It is well known that extreme cold is much more easily borne when the atmosphere is dry, as in Minnesota and some inland portions of the British possessions of America. Workmen in factories are known to habitually work in dry air of extremely high temperature. Men and horses work all day without being overcome in some of the inland valleys of California at a temperature of from 100° to 112° Fahr., simply because the air is very dry. The same temperature in an atmosphere saturated with moisture, as in the tropics during the rainy season, would render such work extremely dangerous or quite impossible. When the sun's rays fall vertically upon a landscape after a heavy tropical shower everything is literally felt to be steaming. Even the natives, inured to it from infancy, hunt the shade if possible. From this I would draw the following lesson: When one seeks a change of climate for his health after living in the tropics, let him select a country comparatively free from moisture, for, if hot, a humid atmosphere will be as bad for him as the tropics. If it is cold, it will chill him in his debility rather than invigorate. He will find cold winds an irritant instead of a tonic.

Most people living in the temperate and colder regions of the earth dread the chilly winds and the frosty air of winter. Yet, perhaps, few appreciate the fact that they owe their physical tone and their intellectual superiority

over the denizens of winterless climes largely to the rapid succession of seasons with extremes of temperature. How one who has lived in the dead level of temperature incident to perpetual summer in the tropics longs for a breath of cool air from his native prairies or woodlands! More than once the writer has spent hours climbing to the top of mountains two or three thousand feet high, without a trail, in the hope of filling his lungs with a cool breath of air from their wooded tops. But by and by such exertion becomes impracticable. Then a change is imperative. But let not one think that in a cool marine climate, as in New Zealand, he can

find conditions favorable to recovery. In semitropical countries little provision is made for the comfort of feeble folk from the tropics. Strong people have no trouble to keep warm, but for a man from the tropics in feeble health, his bed is the only place where he can be comfortable, and even there his most congenial companion is a hot-water bottle, especially on first retiring. The air is so damp and the wind so chilly in a cool marine climate that such a man is unable to exercise sufficiently for hours together to keep warm. For some people brought up there, fires for warming the houses are unknown during the entire winter, because they are not needed.

(To be continued.)

Accidents—Burns

By the Editor

BURNS are usually divided into three classes, according to their severity; first, simple reddening; second, blistering; third, destruction of the skin. The healing of the first two proceeds rapidly, as a rule, but the third heals more slowly, and is followed by a scar and contraction unless skin be supplied from some other source. The danger from a burn arises from its extent rather than its depth; for if the burn covers more than half of the body, even if it be quite superficial, it is apt to result fatally.

When on fire, one's natural instinct is to run, in the attempt to escape the flames, but the proper procedure is to lie down and roll. The vertical position gives the flames a much better chance to climb and reach the face. If an assistant is at hand, he should

throw a rug or blanket over the patient, to exclude the air and control the flames. If the victim is frightened, it may be necessary for some one to throw her down.

In removing clothing cut it away carefully, and avoid breaking blisters, as the skin forms a good protection, but the serum may be allowed to escape by pricking the blister at one edge.

The burn may be dressed with surgeon's gauze or lint, or clean cotton cloth, on which has been spread a layer of vaselin, or perhaps olive-oil. A remedy formerly in common use was carron oil, a mixture of equal parts of linseed oil and lime-water. For very extensive and severe burns, the body may be kept in a bath at body temperature or a little over;

in fact, an arm or a leg or other part of the body, if burned, may sometimes be immersed in a bath with advantage.

In machine shops shellac is sometimes used as an application for severe burns. It is said to relieve the pain almost immediately and to favor rapid healing. Common baking-soda, dry, or made into a paste, is frequently used, and gives great relief in slight burns, where the skin is still intact. Where the skin is removed, some smooth unguent which will prevent friction and exclude the air is best, as white of egg, vaselin, or carron oil. The vaselin is better if carbolized, as the carbolic acid relieves pain and also prevents germ activity. In using

a water bath it will often be found more agreeable to the patient to use a cold bath for local applications, as to the arm or foot. Sometimes immersion in cold water will give more relief than anything else.

Care should be taken to avoid dressings which will adhere to the wound and prevent frequent changes.

In all cases where the burn covers an extensive part of the body, a physician should be summoned, even though the burn be superficial, for the patient may succumb to the shock on the nervous system; and when any considerable portion of the skin is destroyed, a surgeon should be consulted as to the advisability of transplanting skin to the denuded surface.

The Cigarette Curse

OUR country to-day is the result of the training which boys and girls received forty years ago. What our country will be forty years from now will be determined by the training which boys and girls of to-day receive. God gives each generation an opportunity to make the world anew, and life is a success or failure according as we use this wonderful opportunity.

The cigarette is in itself an evil which destroys the bodies, minds, and hearts of its victims. It renders them incompetent to do business effectually; it separates them from all high and holy things; it makes them burdens and nuisances when they should be strong and helpful men.

The cigarette evil does not stand alone. No evil stands alone. This one joins hands with impure literature,

the liquor trade, the morphin habit, and every other evil thing which wars against the hope for the coming time.

It is not fitting that the struggle against such an iniquity should be left by a Christian community to one or two, or to a handful of people. As the danger is general, the damage general, so the opposition should be shared by all persons who are in favor of a healthful generation, pure minds, and national honor for our country. I think the reason why more persons decline to assist reforms like this is because they are hopeless of results. If they believed that the desired end would be accomplished, they would assist; because they doubt, they draw back. It would be well for us to take counsel of the old heroic days when men battled for the truth at cost, not

simply of money, but of friends, of liberty, and of life itself.

It was counted great praise to the Roman that when Hannibal's army was camped outside the walls of the eternal city, he purchased at full price the ground on which the Carthaginian tents were pitched. A missionary was once asked what were the prospects of his work. He replied, "The prospects for my work are as bright as the promises of God." It is a strange Christianity or even manhood which sits down before an acknowledged evil, and, declaring it to be invincible, undertakes to live in peace with it.

Hundreds and thousands of boys

and young men are already delivered from the cigarette curse and related evils through the efforts of this league and other similar organizations. The work is out of all proportion to the means expended, and we have ample reason for courage and faith to continue the battle. We ask for and expect the help and labors of humanity in this war which we wage. Fives, tens, hundreds, thousands of dollars might wisely be devoted to this crusade by men and women who desire to share in the work and the victory which is coming.—*President Blanchard, of Wheaton College, in Life Boat.*

Smoking and Epithelioma of the Tongue

THE question of the influence of smoking in the production of epithelioma of the lip has often been raised, and there is a general belief among surgeons that the use of tobacco is an important factor. Carcinoma of the tongue is fortunately a much rarer disease, and the influence of smoking in its production has not been frequently considered. In his latest edition of "Diseases of the Tongue," Henry T. Butlin states that he feels justified in speaking much more strongly on this subject than he ventured to do some years ago at the time of the appearance of the former edition of his work. He believes that smoking is a decided factor in the causation of cancer, not so much directly as indirectly, rather by producing or tending to produce these conditions of the surface of the tongue which predispose

carcinoma, than by immediately leading to the development of carcinoma in such tongues. He states that he does not rely so much on the statistics in support of this view as his personal experience with individual sufferers with precancerous conditions of the tongue and actual carcinoma. Thus Whitehead found only 61 smokers among 104 persons suffering from carcinoma of the tongue, which seemed almost a small proportion; but the common history which we receive of much smoking, the great frequency with which carcinoma of the tongue is preceded by chronic inflammation of the surface of the tongue, which has occurred in smokers and has been maintained by smoking, and the greater liability of males to the disease than females, leads to this view.—*Pacific Medical Journal.*

WOMAN'S REALM

Conducted by Mrs. M. C. Wilcox

Serving

THE sweetest lives are those to duty wed,
Whose deeds, both great and small,
Are close-knit strands of an unbroken
thread,
Where love ennobles all.
The world may sound no trumpets, ring no
bells;
The book of life the shining record tells.

Thy love shall chant its own beatitudes
After its own life work is done. A child's
kiss
Set on thy sighing lips shall make thee glad.
A sick man helped by thee shall make thee
strong.
Thou shalt be served thyself in every sense
Of service which to men thou renderest.
—Elizabeth Barrett Browning.

Winter Evening Amusements

By Mrs. M. C. Wilcox

THE long winter evenings are again here, and how shall they be spent is the question that confronts us. It should be a matter of some seriousness to parents, for the possibilities of these evenings for the rapidly developing minds of children in this fruitful and unfolding age, are almost beyond our estimate.

Most naturally the arrangement of the evening program would fall upon the one who is always there, the one who makes the home and to whom the little ones always look for guidance when puzzled to know how to entertain themselves—the mother. But the writer feels that this ought not to be left upon the shoulders of her who has cared for them through the day. The restless, growing boys and the wide-awake, romping girls need the interest and sympathy of the father enlisted in their behalf. He needs to come into closer touch with these children than he can possibly get by sim-

ply eating with them, and perhaps taking a general oversight of the boy's outside duties. An excellent opportunity is offered when the darkness of night shuts out the busy outside world and assembles all the family around the same fire and light.

If parents could only appreciate these golden opportunities and seek to make the most of them, how many, many children would be saved from the beguiling, tempting attractions of the saloon and many other contaminating, corrupting places of amusement.

Where can there possibly be a duty more pressing—a line of business more important to engage a man's attention—than that of looking after the social, mental, and moral development of his children? So let the father in great solicitude become a coworker with the mother in devising the most profitable and interesting ways of employing the time for the children during the winter evenings.

When the children are very small, this will be comparatively an easy task. The program in my own family runs something on this plan: For supper a simple, early meal of zwieback and sauce, fruitnuts, and fruit juice, bread and milk, or any other equally simple combination, after which a nice little play spell with papa may be enjoyed. Sometimes the baby crawls up into his arms and begs for a story, which usually draws forth a well-adapted Bible story. Then the garments are removed, bath administered, and the little one is ready for his evening prayer. Bowed at mama's knee he repeats a verse of Scripture—often saying it after her for several nights, until it is quite familiar, then alone the rest of the week.

In the same way children learn to frame little prayers by repeating them after mama. These are put up in childish innocence and faith

to the precious Saviour, who loves and cares for them even more tenderly than does mama. Then they are tucked away in their little beds, with a loving good-night kiss from both parents.

Think you, dear parents, that the gentle influence of the experience just mentioned will soon be effaced from the memory of your precious treasure as night after night the program is repeated. This could not be. The seed there early sown will certainly bear its fruit in later life.

Steadily and perseveringly should parents work to lift the minds of their children to that which is pure and holy, even to God, demonstrating to them, in the way of tangible evidence which they can grasp, by their own lives of devotion and unselfishness, something of the love of God. This is truly that which they can not forget even if they would.

(To be continued.)

The Education of Our Girls

It is very essential that the education of each and every one should not be superficial, but practical. The mind must be so trained that it will become habitual to think rightly. The early training of the child forms an important part of the mother's duty, yet how many of our girls who are to become wives and mothers give even one thought to the necessity of fitting themselves for the position? Do we not constantly meet parents who wholly ignore the necessity of preparing their girls for the important place they must take in life? Generally speaking, when a daughter suc-

ceeds, to the satisfaction of her parents, in capturing an excellent suitor, the great climax is reached. Her education is complete; she enters upon her new life as wife, and feels she has accomplished her purpose satisfactorily. But the man who wanted a helpmeet finds he has only a pretty plaything—just a mindless doll—and upon such an awakening who can wonder what misery ensues?

Hitherto a girl's education has consisted of scarcely anything but accomplishments, but we are now entering upon an era when women no longer wish to be slaves to others' ideas, to be

mere recipients of certain facts without understanding them. They want to be so taught that they will be capable of judging for themselves. The ornamental education only does not, and can not, prepare the girl for her position. She must be the counterpart of man, an ever-ready help in the time of trouble. What indescribable satisfaction to the true wife to be enabled to enter into business worries—to be the one to whom the husband can go with his joys and his cares!

Our girls should be so trained that they can meet both the storms and the sunshine of life. There is no better remedy for foolish or idle thoughts than sound and deep study of the practical side of life. Most of

the discontent existing among our girls is due to want of healthy occupation. Painting, music, riding, and singing are excellent studies, but these might be taken as a recreation. A girl whose hunger for knowledge is appeased by these light foods becomes affected, lackadaisical, and helpless, and as soon as her first great difficulty presents itself, she becomes despondent; her latent energies, never being called forth, refuse to work. On the other hand, one who has battled occasionally with the practical realities in her studies, will overcome her trials, surmount her difficulties, and will regard them as stepping-stones to a higher, better, and purer life.—*Selected.*

A Pocketful of Sunshine

A POCKETFUL of sunshine
Is better far than gold;
It drowns the daily sorrows
Of the young and of the old.
It fills the world with pleasure,
In field, and lane, and street,
And brightens every prospect
Of the mortals that we meet.

A pocketful of sunshine
Can make the world akin,
And lift a load of sorrow
From the burdened backs of sin.
Diffusing light and knowledge
Through thorny paths of life,
It gilds with silver lining
The stormy clouds of strife.

—*Sunday School Advocate.*

Orderly Housekeeping. No. 7

By Mrs. A. C. Bainbridge

HOW TO SWEEP A ROOM.

“WHATSOEVER ye do, do all to the glory of God.” “Well,” said daughter, “I can see how a man can preach and pray, or a woman can canvass or give Bible-readings to the glory of God; but how can one sweep a room in any such way?”

“In Him we live and move and have our being.” God is in all we do; let us acknowledge Him and He will direct.

We housekeepers recognize dust, dirt, lint, and all their crew as one of the evils of this world. Again and again we ask, “Where does it all come from?”—Much of it from the perish-

able things we wear and handle from hour to hour, but the root of it all is the curse of mortality, death, decay, and we know that this began in departure from God.

We call earth—that is all right out-of-doors on the ground in its place—dirt when we find it on our carpets; and good clean apple sauce from the dish gets the same name when we find it on our person, clothing, napery, or even the self-same dishes after dinner. We remove it with all the speed we may, nor count our homes clean while any such contradictory conditions are present.

Dirt,—matter out of place,—uncleanness, has a temporary place on this little ball, and we all are looking forward to the day when there shall be no such thing found, no not forever, search we ever so carefully.

Let our sweeping, then, be to us a copy, in miniature, of our Father's work for the past thousands of years, and we can enter into His joy in the result.

Rooms well swept every week will not be so hard to clean at the annual house cleaning. First, dust carefully all removable furniture and place it in another room, then dust all the small things about the room, books, or ornaments, and put them in a closet or on anything clean that will remain in the room, and cover with a dust sheet. Other pieces of furniture may be dusted and covered in the same way. Dust sheets may be simply old sheets, too worn for further service, or made of house-lining.

All this time the windows have been open, lace curtains rolled up and laid on the dusted rods or looped aside. A long-handled dust-brush will remove dust from the pictures

and walls, cobwebs from the corners and ledges.

What to put on the floor that will gather the dust and not hurt the carpet is a question. Having tried many things, I believe I like damp pine sawdust the best of anything, and if you are troubled with fleas, put a little carbolic acid in the water you use. Scatter it everywhere and then sweep; use your arms, not your back; sweep in front of you, short strokes, from you, lifting the dirt out of the carpet, but not lifting your broom to set it afloat. Stand on the swept part, and sweep with the wind, stopping every few strokes to take a deep breath, through your nose, facing the wind. It may be necessary to give some parts a second brushing. Take the dirt all away in a dust-pan, and, if possible, burn it at once. You know why.

There will be so little floating dust that in a few moments you can fold your dust sheets carefully, take them out, shake and hang on the line; with a damp cloth wipe all the wood-work, shake down the curtains, and put books and other things in place, and bring in the clean rugs and furniture.

Now look around and enjoy it. Have you not shown the shining of His character in following in His steps? Is not your house more like heaven for the work you have done? Have you not been serving with Him? Then again rejoice.

TEN to twelve parts of water and one part of ammonia will preserve soft rubber any length of time. Keep rubber pipes, etc., in a glass jar filled with the above solution. Use for your ammonia bottle a rubber stopper; it is better than a glass stopper.

EDITORIAL

The Passing of White Flour

LAST month we copied some statements from the *Northwestern Miller*, which is much troubled over the phenomenal sale of the health foods.

We give herewith some quotations from "What to Eat," on the other side of the question:—

WILL ADVERTISING SAVE WHITE FLOUR?

"This magazine has already noted and commented upon the passing of white flour. It was not our function, however, to pronounce the death sentence on the 'process flour.' The spread of dietetic knowledge and the result of scientific investigation have performed this service. It took several hundred years for the flour-eating human family to discover that in the milling process the most nutritious elements of the wheat kernel were thrown away. During all this time the miller calmly sat beside the millstone grinding out the white meal, trusting to habit and tradition to sell it. But science has been pounding away at the door of the miller, urging him with much scientific argument to utilize the portions of the wheat that have been discarded. In the mean time, through scientific investigation and persistent advertising, the people have been made aware of the fact that they have been cheated for years out of what nature designed should be the most nutritious portions of the wheat.

"From whole wheat flour, graham flour, and other kinds of flour, in which were ground up portions of the

hull of the wheat, to the modern array of cereal foods and health foods, the public has been thoroughly impressed with the fact that the old white flour was amazingly lacking in the elements calculated to contribute to the nourishment of the human system. The markets are now flooded with an almost countless variety of 'health foods,' and their wholesomeness and healthfulness are abundantly attested by their tremendous sales. These sales are the result not only of clever advertising, which has made their virtues known all over the broad land, but of the dietetic experience of the human family.

"It has been scientifically proved that white flour has been shorn of nearly all of its bone, muscle, and brain-making material. Very few dietetic students will challenge the conclusions of science on this subject.

"With the increasing consumption of the cereal foods, which utilize the formerly discarded nutritious hull of the wheat, the manufacturers of white flour are naturally thrown into a panic over the decreasing consumption of their product."

The manufacture of "health foods" has from the first been a process of education. Beginning in a humble way, pushed by a few men of strong convictions against great odds and deep-rooted prejudice, it made progress slowly, but surely, till finally it began to assume commercial importance, and men of the world could "see a good thing in it." Then there were men—

dozens of them—ready to enter the field for all it was worth. By lavish advertising and persistent pushing, these men have made some of these products as famous as the patent medicines of the almanacs. That these men—in the business without any motive other than the acquisition of money—should some of them make preposterous, unwarranted statements in their advertising matter and on their cartons, that they should seek to increase their gain by the use of inferior grades of malt and wheat, is not to be wondered at.

The pioneers in the health food work are content to work in a more humble way, glad that the work is being so vigorously pushed by others; for with all their misstatements and their inferior foods these food men are undoubtedly doing some good. The desire for wealth leads them to carry on in a way the work which others have adopted from principle.

The gospel of health is being preached, and, whether for love of the principles or for love of money, the people are being surely educated.

Important Causes of Indigestion

It has been learned by observations on animals, that the emptying of the stomach is not accomplished at once, but gradually. Constrictions begin about the middle of the stomach and move toward the outlet, forcing the food that way. The outlet remains tightly closed, opening at somewhat regular intervals, on the passage of food which has become softened, *but the presence of any hard lumps delays the opening of the outlet*, so the stomach keeps churning and rechurning the entire contents in order to break up that lump, which should have been broken up before it entered the stomach. Finally the stomach contents are emptied into the intestine, lumps and all, but much later than if there had been no lumps. The lumps now proceed with their mischief by irritating the intestinal mucous membrane, and also by furnishing a place for the growth of germs, protected from the digestive juices, so that decomposition is favored. These are some of the reasons why foods should be thor-

oughly masticated. It is an old story, but those who know it best are just as likely to violate it as the ignorant. We live too fast, we eat too fast, and consequently we die too fast. The man who has no time to masticate his food, will take time to die whether he wants to or not.

In order to insure thorough mastication of the food, liquids should be discarded at meal time, and soft, pasty foods, if eaten at all, should be eaten in connection with zwieback, crackers, or some other food which will compel mastication.

If breaking up of the lumps were the only object attained by mastication, it might be proper to have all food in a pulpy state; but as the presence of saliva in close contact with all parts of the food is an important factor in digestion, it is better to have some of the food in such a condition that it can not well be swallowed until well insalivated. When such food, zwieback for instance, is eaten with pulpy food, the whole mass is insalivated.

For those having slow starch digestion, it is better to eat all, or nearly all, food in a state requiring insalivation in order to be swallowed. This will insure a larger amount of saliva in contact with the food. The best foods for the purpose are zwieback, granose biscuit, granose flakes, and health crackers.

Many people have difficulty with green corn or canned corn. The trouble is with the hulls, which should be removed by means of a colander, as no amount of mastication will make them fit for entrance into a delicate stomach.

Those who have difficulty with apples and watermelon can usually

avoid it by swallowing only the juice. It is the pulp which, as a rule, causes the mischief.

The digestive disturbance sometimes caused by eating raw banana, may usually be avoided by baking the banana.

Cooked cabbage often causes distress, when it may be eaten raw and chopped fine, with impunity, if well masticated.

Often the disturbance supposed to be due to the eating of some fruit or vegetable, is caused by a wrong combination. It is not well for those having feeble digestive powers to eat fruit and vegetables at the same time.

The Legumes as Food

VEGETABLE foods are, as a rule, deficient in nitrogen, so that those who discard a meat diet often fail in health because of insufficiency of that element. There is, however, one class of vegetable foods, the legumes, including peas, beans, and lentils, which are very rich in a form of nitrogenous matter closely allied to the casein or curd of milk, and known as "vegetable casein." It differs very materially from the gluten of wheat, in that it can not be utilized in making raised bread.

As containers of nitrogen the legumes compare very favorably with meats, but they have some disadvantages, the principal of which are incomplete digestibility, tendency to ferment, cause flatulence in the bowels, and also set up movement in the bowels which will hasten the food on before the nutriment is fully absorbed.

On account of the nutriment of

vegetable foods being contained in cells composed of indigestible woody fiber, a considerable portion escapes digestion. In the lentil this has been found to amount to nearly one-half of the nitrogenous part. In the same person five-sixths of the nitrogenous part of meat was digested. On a diet consisting largely of lentil flour eaten by another investigator, over nine-tenths of the nitrogenous material was absorbed, showing the immense advantage of preparing the food in such a way that the woody fiber cells are all broken up.

In order to accomplish this the foods should either be reduced to a fine flour before cooking, or to a fine grained puree during the process of cooking, or preferably the cooking should be continued until the woody fiber has been thoroughly softened. Split peas should be cooked at least five hours, at a slow heat, or until the peas have

broken down to a soft homogeneous mass.

Beans are better if cooked for several days and then run through a colander. Those who have tried cooking beans for several days have noted an improvement in the flavor with each meal as the beans become more thoroughly cooked. The fact is these foods, as well as the cereals, are rarely cooked long enough to soften the indigestible woody fiber, the result being

that a large proportion of the food must pass off as waste.

Those who have found the legumes hearty food will be gratified with the results of another trial if they will cook the foods thoroughly, discard the hulls, have all lumps—no matter how small—broken up, and eat smaller quantities; for less will be needed. Foods prepared in this way will be much more completely digested, and will not be so liable to cause flatulence.

The Best Protection

THE poor human is in a frightful state indeed. According to some modern authorities his secretions are so reeking with infectious matter that he must not presume to allow any of it to escape from him without disinfecting it. It reminds one of the man who allowed all the mosquitoes to get inside of his mosquito net and then got outside himself to enjoy a good sleep. If we can keep all the microbes caged up in human beings we are safe. But then, if they are in the human beings, who is to be protected? As a matter of fact, the germs are most likely to be thriving in those who are most susceptible to them.

Perhaps it will be in harmony with the law of the "survival of the fittest" to keep them there and help get rid of the "unfit," thus improving the race by weeding out the weakened stock. There is a point in keeping halls, carpets, and sidewalks free from pollution by unhealthy excretions. Common decency demands that. But there is danger of carrying the matter of restriction, isolation, and social ostracism a little too far, and thus placing

unnecessary burdens on an unfortunate class who are already experiencing the rocky side of life.

At the same time, those who are discharging pathological secretions should do all in their power to avoid exposing others by scattering it promiscuously.

As suggested before, those who are harboring germs probably do so because they are more susceptible to their action, rather than because they have been more exposed than others. All are more or less exposed to the inroads of germs. The surest protective is sound health. The surest way to invite their attack is to let the system get a little run down through overwork, irregular sleep, overeating, or other bad dietetic habits, in fact, anything which will in any way lower the vitality and thus reduce the efficiency of the body defenses.

The surest way to put a quarantine on the germs is to have the protective cells and the fluids of the body in such splendid condition that they will promptly destroy all germs as fast as they come in contact with them.

A Vegetarian Surprise

By W. H. B. Miller



WHAT seemed to be a very pleasant surprise was experienced by several hundred visitors to the vegetarian dinner held in connection with the Baptist Church sample sale on Thursday, November 13. In common with other Oakland tradespeople, the Health

Food Depot was approached with a request to devote certain provisions in aid of the effort of this organization to raise funds for the rebuilding of their church, which was recently destroyed by fire. The managers of the food company decided to make their gift quite practical, and so offered the committee to provide a dinner, wholly vegetarian, for all who could be induced to attend, charging twenty-five cents per person, and allowing all proceeds to enhance the church building fund. The offer was at once accepted, and the dinner took place, as stated, on Thursday, the 13th ult., in the Y. M. C. A. dining parlors.

We understand that all the foods and materials used were furnished by the Sanitarium Food Company, of St. Helena, Cal. The dinner was prepared and served by Mr. E. G. Fulton, manager, and Mr. Karl Johnson, chef, of the Vegetarian Café, 755 Market Street, San Francisco.

The King's Daughters, an organization in connection with the Baptist denomination, provided the waitresses.

It was arranged to serve dinner between the hours of 11:30 and 2 P. M. The event was well advertised, and the response was indeed hearty and gratifying. Although the weather was most unpleasant, and fears were entertained that there would be but a scant attendance, all were agreeably surprised. Seating accommodation was provided for about one hundred persons, and by noon the visitors began to crowd the tables. Before long every seat was occupied, and the numbers increased until the hallway and



passages were filled with waiting friends, and we are sorry to know that a large number were compelled to leave, not having time to wait their turn. Many remained, however, and quickly

filled up the seats as they were vacated. We are pleased to say that nearly three hundred were provided with an excellent repast.

The resources of the food company were severely taxed, as they had not expected more than two hundred diners. However, careful and complete arrangements had been made, so none who

remained were disappointed. A kitchen was placed in a convenient spot, and those in charge managed to satisfy all demands.

The waitresses obtained their supplies from tables in the auditorium, and the necessary washing up



was carried on cheerfully in the entrance hall.

Every one seemed willing to accommodate themselves to the extempore conditions, and, while they made merry

over the unprofessional service, freely expressed hearty appreciation and enjoyment of the good things provided.

Following is a copy of the menu:—

MENU

Table d' Hote

25 Cents

- MOCK CHICKEN SALAD, Mayonnaise
- NUT AND CELERY BOUILLON aux Croutons
- BAKED MOCK WHITE FISH au Gratin en Butter Sauce
- VEGETARIAN TURKEY AND WALNUT DRESSING with Cranberry Sauce
- SLICED PROTOSE with Currant Jelly
- MASHED POTATOES with Noix en Gluten Sauce
- FRIJOLAS with Protose Mexicano
- STEAMED FIG PUDDING with Orange Sauce
- CARAMEL CEREAL COFFEE
- Granose Flakes Granola Granose Biscuits
- Fruit Nuts Whole Wheat and Graham Zwieback
- Oatmeal Gluten Graham Whole Wheat and Fruit Sticks
- Fig Raisin Oatmeal and Gluten Crisps
- Whole Wheat and Graham Bread

It was quite interesting and sometimes amusing to listen to the remarks and questions of the visitors. Many were anxious to know where these excellent foods could be obtained, and were surprised to learn that they were for sale in the city. Others inquired why there was not a restaurant in Oakland. Some seemed to doubt if the meal was entirely vegetarian. All seemed to agree that it was surprising what a good, healthful, appetizing vegetarian repast could be prepared. Such remarks as, "That chicken salad was all right," and, "This vegetarian turkey is fine," were quite common. "This is better than I could find in Chicago," one lady said.

many ways. Time was when these principles were confined to a very few. But, certainly, this is not so now.

Everywhere people are realizing that a flesh diet is not essential to health and strength. Everywhere requests are being made for something better. This is evidenced by the ever-increasing number of cereal products which are being placed on the market to satisfy these demands, and by the enormous and ever-increasing sales which are made. The St. Helena Health Food Company are evidently able to offer cereal and nut foods in almost endless variety.

There exists a large and ever-increasing literature regarding food-reform topics, and the publishers of the JOURNAL will be pleased at any time to supply those interested with desired information.



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G. H. HEALD, M. D., Editor

H. H. HALL, Business Manager

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Unfermented Grape Juice

NATURE'S FOOD BEVERAGE

THE investigations of physiologists have of late years thrown much light on the processes of the body and the functions of its various organs; and probably as great advance as any has been made along the line of the nutritive processes.

It is now definitely known that the great heat-and-force-producing foods are not the proteids or nitrogenous foods, but the carbohydrates—that is, the starches and sugars. In whatever form they may be eaten, the carbohydrates all enter the blood current in a form practically identical with the sugar of the grape. When starch is eaten, it must pass through several stages before it is finally converted into grape sugar. Other carbohydrates, such as dextrin, malt sugar, or cane sugar, are all converted sooner or later into grape sugar or its equivalent. In the grape then we have, provided by the Author of nature, a carbohydrate naturally adapted to people having feeble digestive power.

The now famous grape cure could have had no existence had it not been that the grape contains nutritive material in a form requiring no digestion.

Grape sugar being a most valuable food, the question arises, Why not furnish it in the dry form? The answer is that in this form or in concentrated solutions it acts as an irritant to the intestinal canal. It is best tolerated in a dilute form as furnished naturally in the grape.

If grapes rich in sugar, such as are grown in the sunny valleys of California, could be had everywhere, and all the time, it would be a boon to mankind. But, while the grape can not be conveniently preserved for a great length of time, the juice of the grape may be preserved indefinitely in any climate. In the usual process of preserving the juice of the grape, the change from sugar to alcohol converts its life-giving qualities into disease-producing and death-dealing properties.

There is the same relation between fermented and unfermented grape juice as there is between a sound apple and a rotten apple. In either case microbes have gradually converted what was good food into something absolutely unfit for consumption. The more rational though less popular method of preserving the

juice free from fermentation makes it possible for one to have at moderate expense the advantages of the grape through the year.

Beside the sugar, approximating 20 per cent of the entire grape juice, there is present tartaric and other acids and certain fruit salts which act as a natural corrective in many a case of indigestion and constipation. Nothing will act more certainly on a coated tongue than these natural fruit acids.

It will be a surprise to many to learn that grape juice, though deficient in flesh-forming materials, contains more heat-and-force-producing matter than milk.

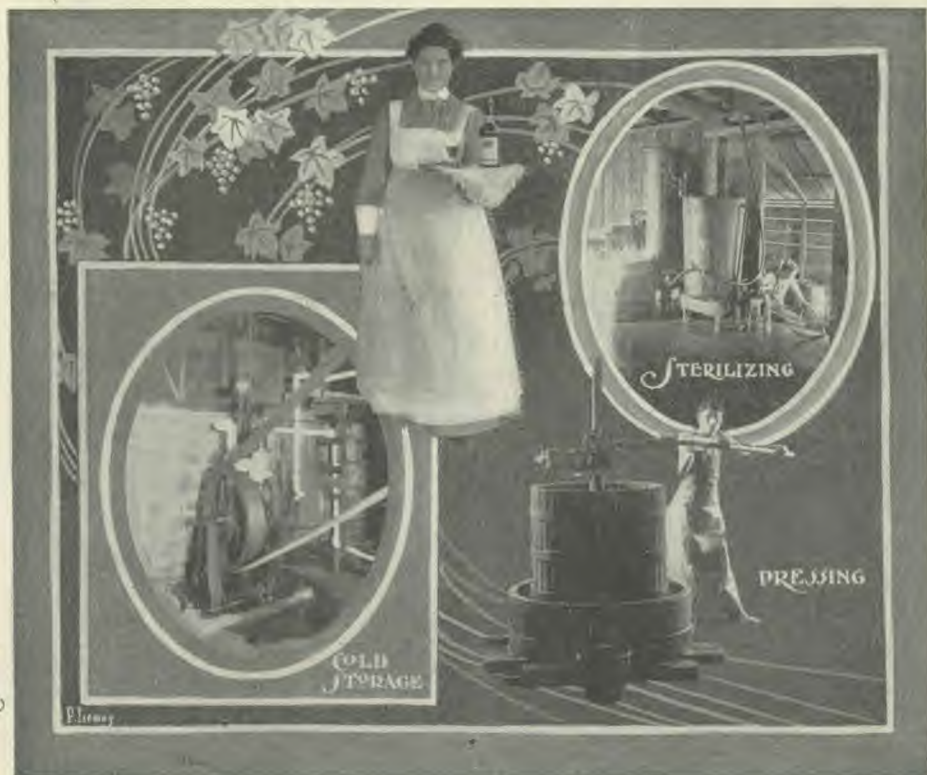
The Sanitarium Food Company, realizing the value of a pure grape juice, have been for a number of years perfecting their processes of manufacture, which include heating to a temperature which will prevent fermentation for the time being. The wine is then cooled and conveyed by sterilized tubes into sterilized barrels, and immediately placed into cold storage, where it is kept at a temperature ap-

proximating the freezing-point until it has settled. It is afterward drawn off, filtered, bottled, and reheated. In every stage of the process extreme care is required to prevent fermentation or injury to the juice. It is a process not likely to be adopted by concerns in the work for the money, for it is so much easier to add a little "preservative" to the juice.

The accompanying cuts, which represent the pressing and sterilizing operations, and the machinery for the cold-storage apparatus, will give some idea of the care exercised and the expense attached to the manufacture of this delicious food beverage.

The sweet wine as it leaves the factory at St. Helena contains absolutely nothing but grape juice, not even cane sugar.

The "doctored" grape juices which are made by men after the shekels will be found to keep when opened, on account of the preservative present, whereas the Sanitarium grape juice will ferment in a very short time after being opened if kept in a warm place.



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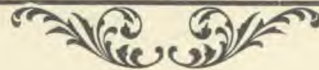
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