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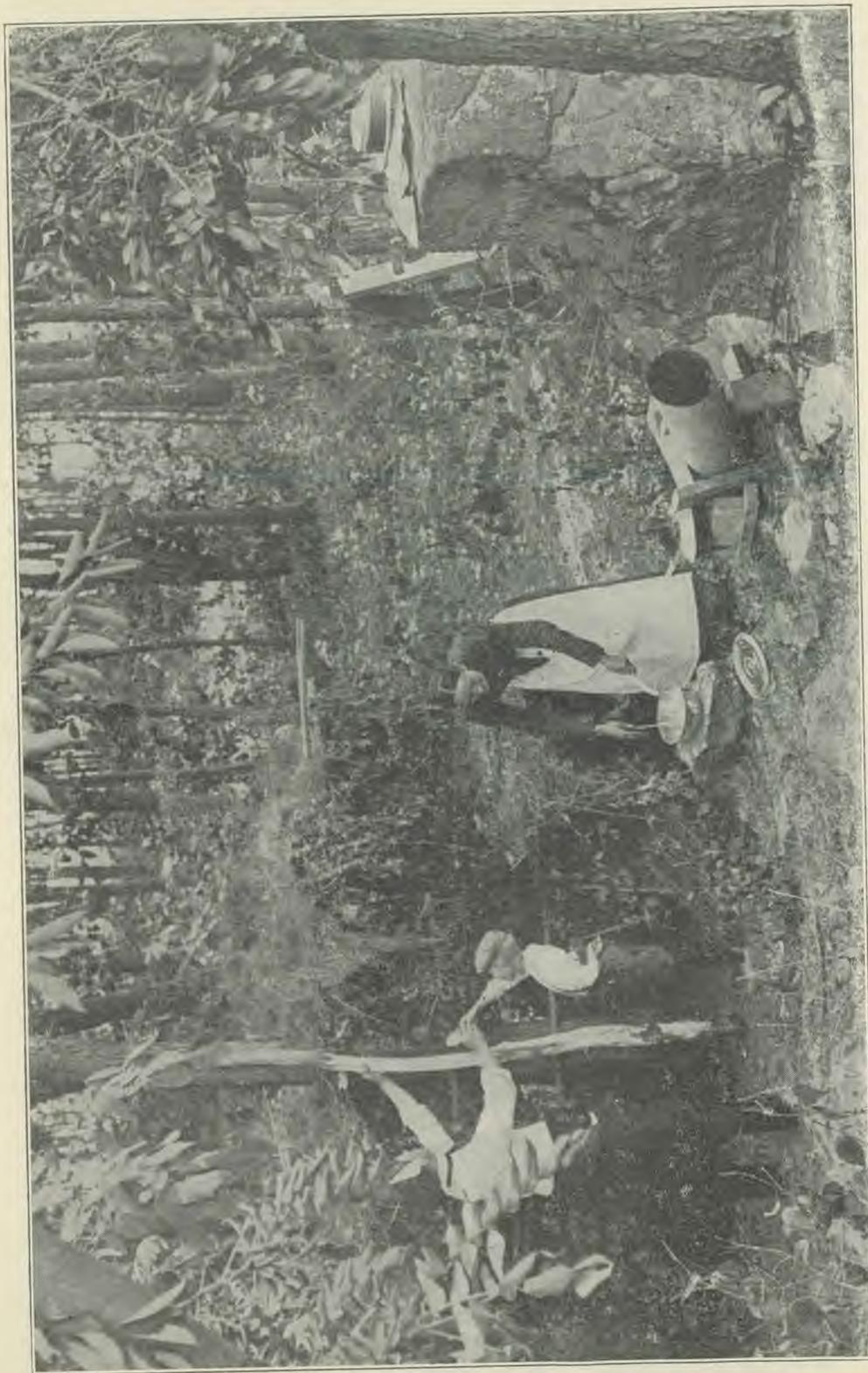
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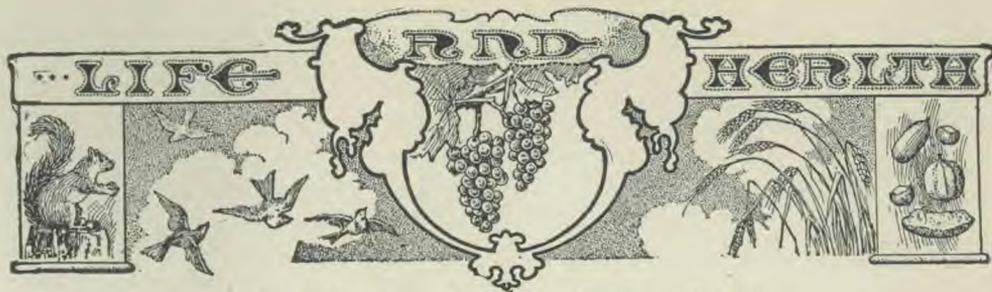
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... .. CHAIRS IN PRIMITIVE METHODS



"Something better is the law of all true living"

Vol. XXIII Takoma Park Station, Washington, D. C., June, 1908 No. 6

LESSONS FROM NATURE

Mrs. E. G. White

THE Great Teacher brought his hearers in contact with nature, that they might listen to the voice that speaks in all created things; and as their hearts became tender, and their minds receptive, he helped them to interpret the spiritual meaning of the scenes upon which their eyes rested. The parables, by which he loved to teach lessons of truth, show how open his spirit was to the influence of nature, and how he delighted to gather the spiritual meaning from the surroundings of daily life.

The birds of the air, the lilies of the field, the sower and the seed, the shepherd and the sheep,—with these Christ illustrated immortal truth.

So we should teach. Let the children learn to see in nature an expression of the love and the wisdom of God; let the thought of him be linked with bird and flower and tree; let all things seen become to them interpreters of the unseen, and all the events of life be a means of divine teaching.

As they learn thus to study the lessons in all created things, and in all life's experiences, show that the same laws which govern the things of nature and the events of life are to control us; that

they are given for our good; and that only in obedience to them can we find true happiness and success.

To him who learns thus to interpret its teachings, all nature becomes illuminated; the world is a lesson book, life a school. The unity of man with nature and with God, the universal dominion of law, the results of transgression, can not fail to impress the mind and mold the character.

These are lessons that our children need to learn. To the little child, not yet capable of learning from the printed page, or of being introduced to the routine of the schoolroom, nature presents an un failing source of instruction and delight. The heart not yet hardened by contact with evil is quick to recognize the presence that pervades all created things. The ear as yet undulled by the world's clamor is attentive to the Voice that speaks through nature's utterances. And for those of older years, needing continually its silent reminders of the spiritual and eternal, nature's teachings will be no less a source of pleasure and of instruction.

As the dwellers in Eden learned from nature's pages, as Moses discerned God's

handwriting on the Arabian plains and mountains, and the child Jesus on the hillsides of Nazareth, so the children of to-day may learn of him. The unseen is illustrated by the seen. On everything upon the earth, from the loftiest tree of the forest to the lichen that clings to the rock, from the boundless ocean to the tiniest shell on the shore, they may behold the image and superscription of God.

Yet even the child, as he comes in contact with nature, will see cause for perplexity. He can not but recognize the working of antagonistic forces. It is here that nature needs an interpreter. Looking upon the evil manifest even in the natural world, all have the same sorrowful lesson to learn,—“An enemy hath done this.”

Only in the light that shines from Calvary can nature's teachings be read

aright. Through the story of Bethlehem and the cross let it be shown how good is to conquer evil, and how every blessing that comes to us is a gift of redemption.

In brier and thorn, in thistle and tare, is represented the evil that blights and mars. In singing bird and opening blossom, in rain and sunshine, in summer breeze and gentle dew, in ten thousand objects in nature, from the oak of the forest to the violet that blossoms at its root, is seen the love that restores. Thus nature still speaks to us of God's goodness.

“I know the thoughts that I think toward you, saith the Lord, thoughts of peace, and not of evil.” This is the message that, in the light from the cross, may be read upon all the face of nature. The heavens declare his glory, and the earth is full of his riches.



NATURE'S PRODUCTS

SOME VACATION DANGERS

G. H. Heald, M. D.



GOING on a vacation trip this summer?"

"What a question! Certainly I am. Everybody takes a vacation."

Almost.

The exceptions are so few as to prove the rule. Even many of the "submerged," through the kindness of some of the more fortunate, are enabled to take a breathing-spell apart from the congested streets and lanes and haunts of our overcrowded cities.

Concerning the vacations of the class whose time is their own, and who have to invent new ways to spend their means, I need not write. There is a much larger class, who, either in the employ of the government, or of mercantile or manufacturing firms, have their regular summer leave-of-absence, usually under full pay, and sometimes with an additional present to help defray vacation expenses. The employees of one large mercantile firm, numbering more than a thousand workers, receive full pay and two weeks' free entertainment at a seaside hotel maintained by the firm.

This tendency to liberality on the part of employers in the matter of vacations is not altogether prompted by a spirit of philanthropy. Shrewd business men have observed that employees can do more work and more effectual work in fifty weeks than in fifty-two weeks. This is only an extension of the observation long ago made that a man can do more in a week of six working days than in a week of seven working days. Experience has everywhere justified the truth of this seeming paradox. Even with machinery it is found that periods of rest are economical, in that they prolong the life of the machinery much more than the time represented by the rest.

But with the human machine, there are some accompaniments of the ordinary vacation which render it not entirely harmless.

In the first place, the active person does not do well on prolonged rest. The functions of the body are kept at their best only when exercised. An athlete, who for two weeks gives up all physical exercise, finds at the end of that period, that it will take some time to restore him to his previous condition. The mental worker who attempts to take absolute rest will probably find his neglected mental garden growing up with weeds. The city lad, unoccupied with lessons, is more apt to come into contact with the police judge. His active mind, released from study, seeks diversion which brings him trouble. The number of juvenile offenses always increases during vacation.

There should be periods of relaxation, but every day should have its task (except for invalids, and even they should usually have some light occupation within the reach of their strength), not a task involving care and worry, but one in the line of the natural interests and desires and enthusiasms.

To many the summer schools afford an agreeable change with various means of diversion, combined with sufficient work to give real zest to the recreations. If the work is in the line of the yearly routine, there is the change involved in seeing it from a new point of view, and the inspiration of meeting with masters, and of touching elbows with many others in the same line of work. The vacation summer school, properly conducted, prepares the participant, by means of renewed rigor, by higher ideals and a broader outlook, for a nobler and better and fuller year's work.

A prominent Washington woman says that no pleasure is right that does not make one better or wiser. By this standard the vacation may be judged. If the vacation is merely a time of idleness and uncontrolled "fun," we may be sure that the result will be a weakened character, impaired health, and poorer work for some time after. A vacation may be made the means of a physical, mental, and moral uplift, or it may become the opposite.

In the second place, the country is not everywhere in ideal sanitary condition. The farm-house well, with its water deliciously clear, cold, and sparkling, may be in dangerous proximity to the drainings of animal waste by which it is polluted. Many a case of typhoid fever in the fall closely follows the return to the city from a two-weeks' vacation up-country. The well may be considered to be absolutely safe because the people living there have, through long exposure, become immune from the effects of the polluted water.

The food in many country resorts is anything but desirable. Strange as it

may seem, it is often easier to obtain good country produce in the markets of a great city than it is right out in the country; for in the city, the products are brought in from many localities, and appear in a profusion and variety seldom seen in country places. In fact, country resorts often have to depend on the large city markets for at least a portion of their supplies.

The cooking may be anything but hygienic; but most serious of all is the too common fly nuisance. Swarms of flies may pass to the kitchen and dining-room from the neighboring filth piles, far away from the cities,—

The health officers cease from troubling,
And the careless are at rest.

Malaria, which is now becoming known by the more appropriate name "mosquito fever," is another possibility to be thought of in some sections. In looking over advertisements of "cheap summer boarding places," do not fail to read between the lines, remembering that advertising is the fine art of lying for profit, and that the average summer-boarder advertiser is an adept in this line.



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SUN, AIR, AND WATER

Their Use in the Preservation of Health and the Cure of Disease—No. 5

S. Adolphus Knopf, M. D.

Director in the National Association for the Study and Prevention of Tuberculosis; Associate Director of the Clinic for Pulmonary Diseases of the Health Department; Visiting Physician to the Riverside Sanatorium for Consumptives of the City of New York; Consulting Physician to the Sanatoria at St. Gabriels, New York, and Binghampton, N. Y.; the Mountain Sanatorium at Scranton, Pa., etc.



THE drinking fountain¹ brings us to the subject of water and its internal and external use in the preservation of health. There is no doubt in my mind that, as a rule, the majority of people do not take enough pure, clear, fresh water internally. Many more or less severe diseases, not excluding tuberculosis, have their origin in an impaired digestion, often due to chronic constipation. There is no better remedy for this prevalent affliction of ordinary habitual constipation than the judicious use of water. To take two glasses of fresh water in the morning before breakfast, not all at once, but divided into four or six portions, during from half an hour to an hour's time, and in addition to this a few glasses during the day, not at meal-time, but an hour or two before or after, will certainly greatly help to combat a tendency to habitual constipation.

Iced water, that is to say, water cooled by placing a bottle of water in the ice-box or by surrounding it with ice, or cooled simply by placing it outdoors in cold weather, is always to be preferred to so-called ice-water, which the average American likes so well. There are two reasons why the cooling of the water from without instead of from within is to be preferred. First, the water is not

so cold without the admixture of ice, and therefore not so apt to chill the stomach. Second, unless the ice is manufactured from distilled water, one can never be certain of its purity. But even if water simply cooled with pure artificial ice, cold water, or any other cold drinks be taken, they should always be drunk in small swallows, so as not to produce a shock to the delicate membranous lining of the alimentary tract.

We can not enter here into a discussion of hydrotherapy, but only speak of the use of water as a means of keeping the body clean, strengthening the nervous system, thus increasing the natural resistance to disease. Here again I believe in beginning with the child at an early age.

From the tenth to the twelfth month one should accustom the child gradually to cold baths. The best way to begin is after its daily warm bath to rub the child a few times with the hand dipped in cold water, and then wipe it rapidly. By and by a cold sponge-bath may be given, and later a little douche or spray. In the use of cold water it is absolutely necessary that the reaction shall follow rapidly. This reaction is manifested by a pleasant warmth perceived by the child, and is made visible by a reddish appearance of the skin. Whenever cold water is applied to the skin, one will notice at first a certain whiteness, or pallor, which is

¹ In the previous section, Dr. Knopf was advocating the use, in schools, of hygienic drinking fountains.—Ed.

caused by the contraction of the external blood-vessels. The return of the blood to the external surface causes the reddening of the skin. Whenever reaction is lacking or tardy, the advice of the physician should be sought.

The needle-bath has a certain advantage over the general cold bath, particularly for the beginner. The shock of the cold is lessened by the additional mechanical stimulation on the skin surface.

It goes without saying that when one gives a child its daily bath, the room should always be warm, so as to avoid any possible chill after undressing the child. Though the application of water is beneficial, one should never forget that a routine treatment is not applicable to every individual. The careful, judicious, and regular application of cold water is perhaps one of the best preventive measures against taking cold, for children as well as adults, and its use generally should be recommended. Persons not accustomed to the use of cold water may easily become so by being rubbed every day with alcohol for a week or two. During the second week they should be rubbed with half alcohol and half water, and the third week with water alone. By this means one gradually educates one's self to the use of cold sponge-baths, ablutions, and douches.

The direct sudden cold douche or spray of very cold water on the head I do not at all favor. It does no good, and is apt to do a great deal of harm. The head and hair may be moistened with cold water by the aid of the hands, with vigorous friction. This method will be productive of good. Another precaution to observe is always to dry the hair and head first after leaving the bath.

Every family does not have the luxury of a douche apparatus, and sometimes not even a bath-room. For such I wish to describe a simple method which will answer the purpose. Take a large cir-

cular English bath-tub, about three feet in diameter and ten inches high, and pour about five inches of cold or tepid water into it. The bather jumps into the water, keeping his feet in motion for a few seconds, and pours one or two pitcherfuls of water quickly over each shoulder, thoroughly wetting the whole body. It is not essential that the head should be wet at the same time. The douche may be made easier by the help of an attendant to pour the water from the pitcher or watering-pot. If a hose can be attached to a near-by faucet, a douche, needle-bath, or direct jet may be improvised. The temperature of the water may vary from 60° to 40° F. The room in which the bath is taken should be warmed in cold weather. The best, and perhaps also most convenient, time to take a cold bath is in the morning before dressing, or in the evening before retiring. Whenever reaction is feeble, that is to say, when a pleasant feeling of warmth does not immediately follow the bath, one should proceed as follows: If the bath is to be taken in the morning, rise half an hour earlier; cover the bed, to retain the warmth; then, after the rapid application of cold water in the manner described above, rub with a rough Turkish towel, and return as quickly as possible to the warm bed. If it is not practicable to take the bath in the morning, one may obtain the same result by going to bed half an hour earlier, and when the bed is warm, rising again to take the cold water application. In most cases the return to the warm bed will assure a thorough reaction: but if these precautions, in addition to vigorous friction after the bath, do not suffice to produce a proper reaction, it is a sign that the body has not enough resistance for this kind of treatment, and a physician should be consulted.

Cold baths, especially bathing in a river or in the ocean, are of course to be

recommended in warm weather. Weakly and elderly persons should not take cold baths, no matter at what season, unless permitted to do so by their physician.

To keep the skin clean and in good condition, cold baths, even when taken every day, are not always sufficient; soap and hot water should be used at least once a week. The warm bath should always be followed by a rapid sponging off with cold water.

The face, neck, and hands, if exposed to dust, should be washed with lukewarm water and soap twice daily according to the amount of dust which may have settled on these unprotected portions of the body. This applies particularly to workers in dusty occupations. Factories and workshops should have ample washing and even bathing facilities for the workers, so that they may have a chance to be clean and have the pores of their skin in good, active condition.

As long as we have hundreds and thousands of tenements without bath-tubs, there will be thousands of persons who can not bathe, and there are perhaps an equally large number who do not know the meaning of a cleansing bath. Cleanliness and the beneficent influence of a bath must be taught to the ignorant adult, and inculcated into the child attending the public schools.

While it is to be hoped that sometime, and let us pray in not too distant a future, every family in this land will be so housed as to have its own bath-room, in the meantime public baths are a necessary feature of every community. Thanks to the indefatigable energy of Prof. Simon Baruch, of Columbia University, we have in New York and other American cities quite a number of public baths, supported either by private or by municipal philanthropy. To avoid a possible pauperizing tendency, a charge of five cents is made for each bath, and for this trivial amount the bather receives a clean towel

and a cake of soap. The multiplication of such establishments in sufficient number in all large cities is highly desirable.

Of course, these establishments, in order to be truly useful, should be open all the year round, all day and in the evenings, and to men, women, and children.

I believe there exists now a few public schools where opportunity is offered to pupils to take a needle-bath or douche; but since the time when every home in this country will have its bath-tub seems still far distant, every school should have bathing facilities.

There is one feature in our present system of education and care for the physical development of our young which seems to be neglected in all our primary public educational institutions. I refer to the instruction in swimming and the incidental compulsory bath. Never was I more impressed with the necessity of such instruction than when duty called me to my service on North Brother Island on the day of the fearful "Slocum" disaster. I am convinced to-day, as I was then, that hundreds of those little ones could have been saved from the untimely death to which greed, inhumanity, and laxity of law had condemned them, had they known how to swim. Every well-equipped college has its swimming-tank; why should a public school be behind in anything which may not only tend to the physical development of its pupils, but may be instrumental, in case of accident, in saving their lives or the lives of others? I am furthermore convinced that compulsory swimming lessons would give to many a pupil, coming from the often unsanitary homes of the overcrowded tenement-house districts, a cleansing bath which he otherwise would not get.

Conclusion

The few words of advice given in the preceding article will, I trust, be of some

help to many who have not heretofore fully realized what it means to have sun, air, and water at their unlimited disposal in the preservation of health. I also hope that what has been said about the necessity of not overdoing a good thing, and not even resorting to these means as curative measures except at the advice and under the direction of a physician, will be borne in mind; for there is no doubt that too much sun and too much air and too much water can, under certain conditions, be harmful to an invalid or patient.

There is another wish I desire to express as to the result of this article. Those who read it, and feel that they have been instructed by it, should pass it on to their neighbors who may need this instruction. To spread the gospel of good cheer and good health is as glorious as to spread the gospel of the Physician of all physicians.

Lastly, I pray that this article may also reach many of the cultured, the well-to-do, the wealthy, the powerful, and those in high places in the government. The cultured should disseminate the ideas set forth in this little essay, particularly by practise and example. The well-to-do and the rich, when enjoying the comforts of well-lighted and well-ventilated living apartments, should think of their unfortunate brothers and sisters living in dark, dreary tenements, for which they must often pay exorbitant prices to greedy and inhumane landlords. The rich should realize that by investing some of their wealth in model tenement-houses

they will not only assure themselves a reasonable percentage on their investment, but they will do a world of good to thousands of their fellow citizens, and will protect them from many diseases which are prevalent simply because of unsanitary housing conditions. To the statesman and legislator I would suggest the enacting and enforcing of the best tenement-house, factory, accident, and insurance, child-labor, and woman-labor laws. When the environments in which the masses have to work are rendered sanitary and safe, when child-labor and the labor of the woman approaching motherhood are forever suppressed, then indeed may hope for a decrease in our death-rate among men, women, and children, and look forward to a generation of physically, mentally, and morally strong American citizens.

✽

A Correction.—In the May number, on page 206, an unfortunate error occurred, in which Dr. Knopf was made to say something which he did not intend, and which was meaningless. The paragraph should read: "If after careful removal of all obstructions in either nose or throat, the child still breathes through the mouth, particularly when he sleeps, Dr. French's mask, of which I give an illustration (Fig. 13), will be an additional help to overcome this chronic habit of mouth breathing."



FIG. 13. DR. FRENCH'S MASK

If the poor now crowded into the cities could find homes upon the land, they might not only earn a livelihood, but find health and happiness now unknown to them. Hard work, simple fare, close economy, often hardship and privation, would be their lot. But what a blessing would be theirs in leaving the city, with its enticements to evil, its turmoil and crime, misery and foulness, for the country's quiet and peace and purity.—Mrs. E. G. White, in "Ministry of Healing."

OUR MODERN BEVERAGES

Tea, Coffee, and Cocoa

D. H. Kress, M. D.

THE use of these beverages is becoming well-nigh universal; they are to be found in almost every home, and are considered indispensable and essential to the health and well-being of the family. Yet strange to say, our sturdy forefathers who knew nothing of neurasthenia or other of our nervous disorders, did not have these beverages.

Three hundred years ago little was known about tea and coffee in European countries. In the year 1664 a present of two pounds and two ounces of tea was made to Charles II, by the East India Company. This probably marked the beginning of its use in England. The price of tea at that time was about fifteen dollars a pound. Through Catherine, wife of Charles II, who had previously formed a fondness for the beverage while visiting at Portugal, tea later became a fashionable beverage in court.

Through the influence of a treatise published about the same time by Bontekoe, a Dutch physician, in its favor, tea-drinking became more general among the well-to-do, though its high price made its use prohibitive to the poor. In the year 1728 tea still retailed at five dollars a pound; and by an act of Parliament a special charge of thirty cents a gallon was imposed upon all tea served in public houses.

The following will give some idea of the rapid increase in its use during the past century. In 1771 the annual consumption of tea per capita in Great Britain was only one-half ounce, while at the present time over two hundred times this amount is consumed, or about seven pounds for each person. West Australia exceeds this by three pounds, using ten

pounds for each person. The total value of the tea imported into Great Britain during the year 1904 reached the fabulous sum of eighty-five million dollars.

Coffee as a beverage was also introduced into European countries about three centuries ago. As it became more popular, coffee houses were established, the first one being opened in London in the year 1652.

In the "New Views of London," published in 1708, there appeared the following, "One James Farr, a barber, who kept a coffee house, was in the year 1657 prosecuted for making and selling a sort of liquor called coffee, as a great nuisance and prejudice of the neighborhood." But coffee drinking has also increased by leaps and bounds. Germany and America take the lead in its use, consuming annually fourteen pounds a head. America takes about one half of the entire coffee crop of the world. In the year 1904 her people paid out the enormous sum of one hundred million dollars for coffee alone.

The use of cocoa as a beverage is quite modern. The amount consumed is for this reason considerably less than that of tea and coffee. But many, after becoming acquainted with the harmful nature of tea and coffee, give up their use, and resort to cocoa as a harmless substitute. It is rapidly becoming more popular, and it is only a matter of time when its use will be as common as that of tea or coffee.

Tea and coffee are not nutrients; they do not impart either heat or energy to mind or body. They are stimulants, and are taken because of the feeling of exhilaration, or well-being,

experienced by their use. The word stimulant is derived from the Latin words *stimulo*, *stimulatum*, meaning to goad, or to urge on. A stimulant acts merely as a whip; it imparts no strength; for although the one under its influence feels stronger, actual test shows that he is weaker. The tired, worn-out horse is not strengthened, or even benefited, by the application of the whip. He needs rest, and energy-producing foods. The whip does not keep him up. There are thousands of tired, worn-out men and women who try to keep up on the use of stimulants. Sooner or later this will end in nerve exhaustion or nervous breakdown.

The man in business can not long continue in business if from day to day he draws upon the capital invested to meet the running expenses. He must have an income proportionate to, if not in excess of, the expenditure, in order to carry on a healthy business or to prevent bankruptcy. Men and women use stimulants because they feel a lack of energy. They feel unable to meet the demand that is made upon them by their daily occupation. The stimulant enables them to draw upon the little energy which nature would wisely hold in reserve as capital for other purposes. The continuance of this practise is responsible for the many nervous and mental wrecks we see lying by the wayside, or housed up in our insane asylums. In proportion to the increased use of these stimulants, nervous disorders have increased. The fact that the use of stimulants has become so universal, and that something new along

this line is constantly sought for, is evidence that the human race is in a state of decadence, or that its vitality is at low ebb. Men and women feel a lack of energy and hence the supposed need of something to goad or urge him on.

The lack of energy is especially felt on waking in the morning. Does it not seem strange that at the very time when man should be at his best, he should feel at his worst? Yet it is not strange. It is true that during the sleeping hours, energy is stored up; and for this reason normal man, like the birds and everything else in nature, should be at his best. He should awake with a song of praise in his heart if not on his lips, and be ready to spring into the harness, not only feeling fit for work but taking delight in toil. The user of stimulants, however, feels his energy-poverty most in the morning. The influence of the stimulants which have kept him up during the day, has during the sleeping hours, had time to wear off; consequently when he awakes, he has an opportunity to feel his real condition. The wise thing would be to say, "I can not afford to continue in this suicidal manner any longer; I must call a halt and discard the use of these deceptive drugs;" but instead of this, often the cup of tea, if not something stronger, has to be taken to the bedside. The morning meal can be dispensed with, but the morning cup is felt to be a necessity. How true it is that "wine is a mocker,"—not because it is wine, but



because it contains alcohol, which is a stimulant—and “he that is deceived thereby is not wise.” What applies to one stimulant applies to all. They deceive the unwise. To one in possession of health, bubbling over with energy, work is a pleasure; therefore he feels no need of a whip or of stimulants to urge him on.

What is responsible for this all-prevalent lack of energy which calls for the universal use of stimulants?—No doubt the modern strenuous life is in part responsible for it. The intense strain of business, and the constant chase for excitement and pleasure, result in nerve exhaustion. But this is not the only, or even the chief, cause. Probably the principal cause is to be found at our tables. We eat the wrong kind of food,—foods which are stimulating but lacking in energy-producing material.

Energy is stored up in food. The vegetable kingdom stores up the inorganic elements found in the soil and air; it organizes them, and vitalizes them for man's use. In order for man to possess the energy he is entitled to, and should possess, he must get his supply from the fountain head, or direct from the vegetable kingdom. While the plant stores up energy, the animal tears it asunder, or dissipates it. In this process, wastes and poisonous products are formed, the retention of which would prove destructive to its own organism. This in itself is evidence that the animal creation does not exist for the purpose of storing up energy for man to utilize, and that nature designed that each creature should get its supply of food from the vegetable kingdom.

Dr. Harvey W. Wiley, in his report to a National Committee at Washington said, “The cereal-eating nations of the world can endure more physical toil than the meat-eating nations. You can not tire out a Japanese, who eats rice. He

will draw you all around town on a pound of rice, and be as fresh at the close of the day as when he started. You could not do that on a pound of meat to save your life.”

This is to say, in effect, that the rice-eater possesses an amount of physical energy to which the beef-eater is a stranger. At another time, in speaking of the value of beef broths, he said, “There is no nourishment in the broth or in the so-called extracts of meat. Every one of these so-called invalid foods made from meat is a fake of the worst kind. Extract of beef is absolutely without value as a food. A dog fed on beef extract for eleven days died of starvation. He was given all he could eat.” Nearly three fourths of beef by weight is beef juice. Withdraw the moisture from one pound of meat, and there is left about one quarter of a pound of fiber. The nutriment lies in the fiber, not in the juices. The three fourths of a pound of extract holds in solution only poisonous body wastes. These, when taken into the body of man, stimulate. The flesh-eater depends upon the stimulation produced by meat rather than upon energy-producing elements.

The immediate feeling of strength experienced after eating a juicy beefsteak or taking a cup of beef tea, is due to the presence in it of these poisons. Meat-eating, therefore, creates a craving for stimulants. The attempt to satisfy this constant craving has without doubt created the demand not only for alcohol but also for tea, coffee, and cocoa.

A tremendous effort is being made by temperance advocates to shut the saloon and to check intemperance. But it is a hard matter to chain a full-grown lion. “Touch not, taste not, handle not,” is a motto that must take in more than alcoholic beverages. It must include all foods and drinks which fever the blood or are stimulating in their nature.

Some Things Recently Learned Regarding Typhoid Fever

G. H. Heald, M. D.

THE fact that such a city as Washington has, year after year, its epidemics of typhoid fever, and that careful study of one of these epidemics by experts for several months, failed to give a satisfactory cause for two thirds of the cases, is evidence that we have much to learn yet concerning the cause of typhoid fever, or rather concerning how the cause gains access to the body, and why in some instances it acts, and does not in others.

It is generally agreed that the cause of typhoid fever is a micro-organism, or "germ," known as the Eberth bacillus, which gains access to the tissues, probably in all cases through the alimentary tract, usually by means of food and drink, but sometimes, perhaps, by means of inhaled dust.

Food and drink are contaminated, in some way, from the discharges of typhoid patients, or other persons, who, because their discharges contain typhoid bacilli, are known as "typhoid carriers." In some cases, these typhoid carriers have had the disease and recovered from it, the germ maintaining its existence in the intestine for years after recovery. In other cases, there is no history of a former attack of typhoid fever, but nearly always it can be shown that at some time the "carrier" has been in contact with typhoid fever patients. It is now known that the disease is quite frequently transmitted by direct contact. Not infrequently nurses, though they usually are careful in regard to cleanliness and disinfection, come down with typhoid, probably as a result of neglect to disinfect the hands before eating.

Water is often contaminated with ty-

phoid material. This is especially true of river water which receives the sewage of cities and towns, but it is also true of lakes and other bodies of water. Shallow wells are frequently contaminated by means of near-by privies. When it is remembered that not only typhoid patients, but also those who have had the disease, perhaps many years in the past, and even those who apparently have never had the disease, may be bacillus carriers, it can be understood that water contaminated by means of human discharges, even though the contamination be so slight as to escape notice, is a potent means of transmitting typhoid infection.

When the water is from a suspicious source, it should be boiled, not only for drinking purposes, but also for washing vegetables, fruits, and anything that is eaten without cooking. Such water should not be used for washing dairy utensils, unless it has first been boiled. In fact, it is far better not to use such water at all, if it can be avoided. It must not be forgotten that water may be clear, cool, sparkling, and have no unpleasant taste, and yet be dangerously contaminated. Shallow wells in the neighborhood of a privy vault are dangerous.

Many notable typhoid epidemics have been directly traced to some dairy, where in one of the following ways the milk has been contaminated: One of the dairymen may be a bacillus carrier. The milk may be diluted with water from an infected well, or the cans may be washed with such water. Flies may visit piles of excrement containing typhoid bacilli, and then fall into the milk vats. The typhoid germ grows quite readily in milk, so that if there are at first but a few, the

number will before long be multiplied. If one never uses milk that has not been boiled, this danger will be obviated. Especially in times of epidemic, or in localities where the disease is prevalent, this precaution is particularly advisable.

Ice-water and ice, and consequently iced drinks of all kinds, are liable to typhoid contamination.

Oysters and clams are frequently "fattened" in the mouth of streams which either receive sewage or have privies hanging over their banks. A number of typhoid epidemics have been traced to the use of shell-fish.

Flies constitute a menace in connection with this disease. The fly is bred in a pile of offal, and picks up part of its living from such material. It would not be so harmful if it confined its operations to such localities; but this it will not do. After visiting the filthiest material within reach, whether this be at the stable door, or in the old-fashioned privy, or material coughed from some consumptive's lung, it enters the kitchen and dining-room, and there dances a tattoo on all the food in sight. As preventive measures, have no offensive matter left unburied long enough to breed flies, and screen effectually all windows and doors. Flies have no business in the house. If in spite of these precautions, they gain entrance into the house, they should be driven out, or caught on fly-paper. It ought never to be necessary to cook or eat with flies in the room.

Preventive measures, then, may be summed up as follows: Screening rooms occupied by typhoid patients; destroying the fly and screening against it; taking care of all uncooked food (including milk), and water, and disinfecting typhoid discharges. Such discharges should be treated with some efficient disinfectant, such as copper sulphate or chlorid of lime, which should be thoroughly mixed with the discharge, and allowed to stand

for at least an hour before disposing of it.

There is still another means of preventing typhoid fever which will eventually receive more attention than it is receiving at present. That is the improvement of the general health. As has been already stated, there are an unknown number of typhoid carriers. These may be present in every community. In cities, like Washington, where there is a notable increase in the amount of typhoid fever every summer, there is the possibility that the water may contain minute numbers of the typhoid bacilli, not enough, except in the most susceptible cases, to cause the disease. Some who drink the water become "carriers," and continue to harbor the germs until hot weather causes a lowering of their vital resistance, when they succumb to the disease. This has been pointed out by the experts who have investigated the Washington epidemic as a probable cause of the summer epidemics.

This would suggest the thought that there are other factors besides heat which causes a decrease in vital resistance. It is reasonable to believe that all practises which lower the general health may, if the germs be present in the intestines, be a favoring cause. Overwork, loss of sleep, dietetic errors, excesses, anything, in fact, that lowers the general health, may possibly be a contributing factor in the production of typhoid fever. And in this connection, it should not be forgotten that *fear* is a most potent cause of lowered vitality. One who is afraid he will have the disease, other things being equal, is more likely to have it than one who has no fear of it. Due emphasis should be placed on the expression "other things being equal;" for one who, because he does not fear the disease, neglects to take ordinary precautions, stands a good chance to contract the disease if he is exposed to it.

A fisherman's string

I went a-fishin' one sweet summer day,
Bein' sick o' work, an' wantin' to play.
I longed fer a sight o' the woods an' things,
The smell o' ferns an' the whir o' wings;
So I took my rod an' a piece o' pie,
An' I struck a path goin' m'anderin' by
A brook that's plum full o' shinin' fish,
The purtiest ever was served on a dish.



How the old birds worked till each crop was filled,
An' every hungerin' cheep was stilled!
Then I thought o' the Father's love fer me,
Till the tears brimmed up, 'n I couldn't see.

Next, I caught a sight o' a shinin' fin,
'Twas a trout enjoyin' his mornin' spin.
"God put you in there, old fellow," says I,
An' there ain't no reason that you should die.
To-day there'll be fun an' freedom fer you.
I'll just let you swim on, that's what I'll do.
An' I surely caught, as I left him there,
Another sweet glimpse o' my Father's care.

So I stayed there an' fished the hull day through,
Enjoyin' the trees an' the sky o' blue.
The robin's clear call, an' the pillow o' moss,
An' not a thing sufferin' hurt or loss.
Yes, I might've shot, an' I might've snared,
Or I might've hooked; but fer once I spared;
An' I caught in my heart, as I came away,
An echo of voices that seemed to say, —
"Be kind, thou good Father of us all,
To the man who loved the robin's call.
Who looked on the fish and harmed it not,
And hurt no thing in this holy spot."

— Ada Melville Shaw

Then, shady an' snug-like beside the brook,
I fixed up my rod an' baited my hook.
'Twas as sweet as heaven there in the shade,
The fragranter day that God ever made:
The birds, they was busy as gatherin' bees,
There was matin' goin' on in the trees;
An' I hooked that day the tidiest batch
That ever was fisherman's lot to catch.



First I caught a sight o' a thing so sweet,
Outside o' Eden it couldn't be beat;
'Twas a nest o' babies — a robin-brood —
All a-cheepin' an' pesterin' fer food.





"But unto you that fear my name shall the Sun of Righteousness arise with healing in his wings ["beams," A. R. V., margin]." Mal. 4: 2.

Conducted by Augusta C. Bainbridge, 4487 Twenty-third Street, San Francisco, Cal.

No. 5 — Sickness and the Gospel

Augusta C. Bainbridge

EVERYWHERE is heard the cry for life; yet to Him who said, "I am come that ye might have life," a deaf ear is turned.

The "life" which the Saviour came to give "more abundantly" is not only the future immortal life, but also the present mortal life; for we are told that "he that raised up Christ from the dead shall also quicken your *mortal* bodies by his Spirit which dwelleth in you."

This mortal life, which is susceptible of being quickened by the Life-giver, is expressed in the activities of our nerves, muscles, and vital organs; and the Christian who is fully given up to God, the man whom God can fully and freely use, is the one who realizes that his *members* have been redeemed from the usurper's hand, and that they are not his own, but belong to Him who bought them.

We are created for the glory of God, to show forth his perfection, to express the loving thoughts of his heart, to carry out here in the earth his plan of service. Body, soul, and spirit, working together, set free from the bondage of sin and sickness,—this is the ideal sanctified (set apart) life of the Christian. How closely healing is related to our sanctification and our devoted service!

The Master sanctified himself to serve,

by his life, his death, his intercession. He calls us to this same service, and prays that we may have the same preparation. "Sin shall not have dominion over you." Our members, which we have used as servants of unrighteousness and uncleanness in eating, drinking, or breathing, now become free, and are instruments of righteousness; that is, right-doing.

Because my liver is not my hand, or my kidneys are not my feet, shall I conclude that God has no use for them? The gospel warrants us in reckoning these as his, to be used in the manifestation of his purposes. Thus we may present our bodies, filled with his life, living sacrifices. Not simply our hands and our feet, our faces, tongues, eyes, and ears; but every organ, tissue, and cell may be used by him acceptably. This is our reasonable service.

This may be an active service, in word and deed; or it may be a passive (suffering) service; or it may be both. Paul, an earnest worker, rejoiced in suffering; and in his flesh, "filled up that which is behind, of the afflictions of Christ, for the sake of the church." Both in his strenuous work, and in his suffering, he served.

To accomplish either of these services

acceptably, it is needful that this physical body, as well as the powers of the mind, be continually under control of the Spirit; and this means that they must be in normal condition.

Must our members, our organs, be retained in the bondage of sickness? Must we be thrown back upon ourselves by the mental or physical conflict which sickness brings? We know that service is not rendered impossible by sickness, for some render service which seems the more Christlike because it is a service of sickness and suffering.

But is the sickness the service? Then why the gospel? Jesus healed the sick; James calls upon us to pray for the sick; and among those who served, we are told in the eleventh chapter of Hebrews, were some who "out of weakness were made

strong." These are his witnesses. We are to imitate these, not the sick.

Job was "perfect and upright," a man who "feared God, and eschewed evil." Surely, if any one had a right to be spared sickness, it was he. But God had a grander service for Job—a service of suffering. He was made to learn that it is impossible to obey the commands of God in such a way as to merit happiness, health, or even life. When, finally, Job saw God, and his own need, deliverance came.

Since Christ has redeemed our members for his service, we need not yield them as servants to sin. Just as soon as we cease to claim anything of ourselves, we are sheltered from the fury of Satan's attacks. "All to Christ I Owe," is the triumph song of the sanctified soul.



HEALTHFUL COOKERY



AND HOUSEHOLD SUGGESTIONS

Conducted by Mrs. D. A. Fitch, Glendale, Cal.

THE SUMMER VACATION

A Talk to Boys and Girls

Mrs. D. A. Fitch

YOU are now leaving one school to enter another. Nature is a book of many leaves, written all over with lessons vastly more interesting than the text-books you have been studying during the past nine months. Some of these lessons, you will find, are in your own home.

The house from attic to basement will prove a useful laboratory in which to experiment. It is not likely you can improve on mother's housekeeping; but you can help her, and at the same time be gaining a valuable experience for yourself. Try to make suggestions or to invent something which will save time and labor.

The kitchen will prove the most important experimental field, for there the food must be prepared to furnish the brain and muscle for each day's work. Here the boys as well as the girls should become intelligent workmen. There would undoubtedly be many more happy families and efficient young people if the boys were taught more of housework and the girls were permitted to learn more of gardening and the care of animals.

In families where it seems necessary

that some of the children become wage-earners during vacation, work should be chosen in which there is something to be learned, even if the wages must be less. From a health standpoint, work outdoors, in the country, is to be preferred.

Early in the vacation period, sit down with father and mother to plan for the recreation as well as the work of the summer. Do not forget to incorporate a few picnics in the program; and if practicable, arrange for a few days of camp life. It is not best to crowd all the work possible into vacation. Usually with farmers, gardeners, and fruit-raisers, it is the busy season of the year; so we must accommodate ourselves to the conditions.

Broaden your vacation experience by a variety of activities. Make it a rule to take time for reading, meditation, religious culture, and sociability. Improve your time and your opportunities in as many helpful ways as possible, for this may be the last vacation you will all be at home together.

The scope of this article will not allow mention of the many and varied things even young children can do, and it will

repay the effort if the older children turn teachers of the younger ones.

Now, Elsie and Ernest, you will not have to coax very hard to get mother to consent to your canning some fruit, in order that you may learn by doing.

Wouldn't it be nice to gather some strawberries, and wash, hull, and cook them as mother may direct? She will tell you how to clean the jars, and fit the covers, how much sugar to use, and when to add it. The fruit should be kept in a cool, dark place, as your mother will tell you. Your name should be on each jar, so it can be carefully watched. As other fruits come in their season, you will enjoy

putting up at least one jar of each kind.

The boys should be led to take an interest in all kinds of household matters; for it will make them helpful, and greatly enhance their worth as prospective husbands.

The girls who are old enough to do so should each take a week about in cooking, in laundry work, in sewing, and in the care of the house. All these things should be done under the supervision of mother, that every mistake may be corrected. If you think you see a better

way of doing things, tell mother so, and she will profit by your suggestions when they are good, and will tell you when you are not right.

If there are some kinds of work in which you have become proficient, you

can be a great help to mother by teaching a younger sister or brother. At the same time you will be helping yourself, for there is no better way to learn a thing thoroughly than to teach it to another.

Girls, be sure vacation does not pass without your learning something more about sewing. If your mother is not able to teach you, you should make arrangements to

work with some one who is proficient in the art. Do not allow yourselves to grow to womanhood unable to make a creditable buttonhole, darn stockings so they will be comfortable, mend a rent, and do the many other things you will be called upon to do in a family. Remember there is a vast difference between drawing a rent together, and mending it nicely. Sewing-machines are excellent helps, but they will not do everything. Much sewing must be done by hand.



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WELL AS AT HOME

PICNIC LUNCHES

Mrs. D. A. Fitch

ONE says, "I do wish there were some way to carry food to a picnic, and have it as nice as at home." Perhaps some suggestions can be made which will result in improvement. Were there not several persons concerned, it would not be a picnic, so let the lunch be packed in several baskets or boxes, so that each one may bear his share of the burden.

Take a fresh sheet of manila paper to use as a tablecloth, paper napkins, wooden plates, such as can be bought in any bakery, and a few knives, forks, and spoons. You may

need a salt-shaker, a sharp knife, a cork-screw, drinking cups, etc. There are few exceptions to the rule that each kind of food should be packed by itself, especially if there is danger of odors

passing from one to another; but pickles, cheese, flesh-meats, Saratoga chips, tea, coffee, and baking-powder and soda cakes, may all be put in one box, and entrusted to the hand of the most careless boy in the crowd, to be forgotten or to be lost on the way. It should be suitably labeled, so the finder will not be surprised when opening it, to learn he has in his possession a lot of indigestibles.

Eggs usually form a part of a picnic lunch, and there is a variety of ways in which they may be nicely prepared. Eggs boiled five to eight minutes are neither so palatable nor so digestible as are those which are steamed or boiled from one to two hours. Thus cooked, the white is tender, and the yolk mealy. Break into a quart of cold, salted milk

eight or ten eggs, and bake until well set, or hard if desired. The whole mass will be firm, and can be carried in the same dish. Yolks of hard-boiled eggs may be removed to be mashed with olives, cottage cheese, protose, nuttolene, celery salt, lemon juice, onions, etc., as may be desired. To prepare "stuffed eggs," such a mixture is made and put into the shells, and the contents of two half-shells are fastened together with wooden toothpicks. If it suits the company, the eggs may be carried fresh, and cooked over a camp-fire.



Boil navy beans until very tender and quite dry. Salt, and press through a fine colander. For each quart mix in one teaspoonful of white flour to hinder any crumbling tendency, and a seasoning of sage or

other herb. Spread about three inches deep in a flat pan, bake until firm, and serve sliced when lunch is served. Some might call this a "meat substitute."

Sandwiches are often prepared at home, but they may be made just before serving if some good Marthas are willing to devote time to such work while they chat. In any case the fillings should be put together at home. If the sandwiches are prepared at home, there should be wrappings of paraffin paper, or if that is not available, a slightly moistened cloth will do. We have space to name only a few of the many fillings which may be used. The pressed beans mentioned above are excellent. Protose with olives, cottage cheese with parsley, nuts and jelly, dates, marmalade, nuttolene with

lemon, all make good fillings. Mix equal parts of dates, raisins, figs, nuts, and half as much candied citron. Chop or grind all together, and make rather soft with meltose; then stiffen to proper spreading consistency with fine zwieback crumbs, or twenty per cent gluten, and you have a tasty sandwich filling. It is also excellent as a filling for dainty little turnovers. Mix together one cup of chopped raisins (or dates), one beaten egg, and the juice of one small lemon. Use to fill turnover crusts.

Ripe olives must go to the picnic; for no such gathering is complete without them. An unfermented bread, known as "sticks," is also very convenient to carry to the picnic-ground. Here is a recipe: To each quart of pie-crust flour use two

tablespoonfuls of cooking-oil. Mix together as for pie-crust, adding cold water to make a stiff dough, so hard no water will be needed on the board. Knead thoroughly, and pull, molasses-candy fashion, until there is a sharp snapping sound when the dough is broken. Keep all the material as cold as possible from first to last. Roll into sheet form about three eighths of an inch thick. Cut strips as wide as the dough is thick. Divide into three-inch lengths, lay separately on a tin, and bake until a rich brown.

Nuts, nut or fruit nougat, as given in the April number of this journal, mock cherry pie, given in the March number, fresh fruit, raisins, figs, and dates, form delicate adjuncts to the picnic lunch.



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BE GENEROUS IN PREPARING LUNCH FOR AN OUTING



Conducted by Mrs. M. C. Wilcox, Mountain View, Cal., to whom all questions and communications relating to this department should be addressed.

UNDER THE STARS

WHEN the sun is set, and the stars come out,
 And night's holy breathings are all about,
 Then the sounds of earth seem to faint and die,
 And the soul opes windows toward the sky.

Beneath those orbs, which have shed their beams
 While ages roll, how like nothing seems
 This present world, with its doings small;
 The great eternity, all in all.

Then the gate of heaven wide open swings,
 And we feel the brooding of angels' wings,
 As they pass to earth, o'er the ladder bright,
 Which Jacob saw in a dream one night.

O toiling one! with the fevered breast,
 Saddened and weary, and sighing for rest,
 Go forth at night, 'neath the stars, and feel
 Their blessed peace o'er thy spirit steal.

—*Viola E. Smith.*

THE SOCIAL SIDE OF CAMP LIFE

Mrs. M. C. Wilcox

THE season for drawing apart into some quiet, sequestered spot for rest and recuperation is at hand. To those who have spent weary days and months within the confines of the four walls of the schoolroom or office or workshop, breathing the vitiated air of associate workers and classmates, and the gases and odors peculiar to the city, this is a welcome season. The free, uncontaminated life of the country, full of life-giving properties,—the mellow, soft, and enhancing light and shadow of the green fields and shady nooks, the babbling of brooks, the humming of bees, the war-

bling of birds, the lowing of cattle, the barking of dogs, the cackling of hens, are all restful sounds,—music to the ears of the lover of nature.

To the tired business or professional man, to the nervous, exhausted mother, to the social belle, and to the school, college, and university student, these days, afar from all the haunts of men, are alike welcome.

In these strenuous times of hurry and rush the human system more than ever before needs to rest, and to heed the words of the Saviour, who, in his admonition, "Come ye yourselves apart, . . .

and rest awhile," showed his appreciation of the frailty of man and his need of rest in some quiet spot when worn and weary. But let us pause a moment, and consider what true rest means. Does it mean to "quit life's busy career," and throw off *all care* and *all restraint*?

No, we think not; but rather with the poet Goethe, we believe,—

Rest is not quitting
Life's busy career;
Rest is the fitting
Of self to one's sphere.

'Tis loving and serving
The wisest and best;
'Tis *onward, unswerving*;
This is true rest.

Not that it is not wise sometimes to leave our busy cares behind for a time; but learning to adjust ourselves to circumstances will give us that lasting rest which we so long for.

And then, again, the natural tendency of man, when freed from all care and all responsibility, unrestrained and unrepressed, is not morally upward toward life, but downward toward death. It costs no effort to drift down the stream. Drifting requires no moral strength, no will, no purpose. It pains me to say it; but I have seen and known of many who seemed never to discern the difference between being *care free* and *careless*, when out for rest. To throw off care, or be care free, is right; to become careless, in the accepted use of the term, is wrong.

If it were true that mankind could hide from Satan and sin, if we had not been born with sinful flesh, which continually leads us downward, then we need not always be on guard. But as this condition is not and can not be true while man exists in his present state, we need always to be watchful and that, too, when in camp life on summer vacations.

It takes just the briefest possible time for man to fall, to compromise his faith, to grieve the Holy Spirit of God, to lose his self-respect, and to influence some other soul to do the same thing.

Since these things are true, shall we not resolve that during this vacation we will find our rest and recuperation in drinking in the beauties of nature in the beautiful sunshine and fresh air, and in the innocent pleasures around us? Can we not find peace and rest in plain living and high thinking? for, "as a man thinketh in his heart, so is he." In our association together, can we not keep our conversation on that high plane which will elevate and purify all who may listen?

It is customary, I know, to gather around the big campfire at night and tell stories; but this does not necessitate our telling shocking and awful stories, fish stories, and tragical made-up stories without any point or any lesson. It surely is not possible that any of our readers would enjoy such stories more than some true story, some story of interest with a good moral lesson in it. There are always children in camp, with wide-open eyes and ears, who will never forget the things they see and hear on just such occasions as these. They are forming their ideals for life, so let us be guarded. Our rest and recuperation will better fit us for the practical life to follow if we obtain it in a simple forest life in touch with nature and nature's God, by reading the best literature, by meditating on pure and lofty themes, and by helping all with whom we associate to a better, nobler life.

I am sure it would be of interest to the readers of this department if we could hear how some of them were benefited spiritually and socially by their summer vacations.

Should Children Be Punished? How? When? Why?—No. 5

Causes of Misdemeanor

By a Mother

1 — Ignorance

BE explicit. Be sure that the child thoroughly understands what is expected of him. Carelessness in giving proper directions, and faultfinding when one's own ideas are not carried out, are the source of much of the heedlessness of children. "Commend seldom, rebuke often," is a good motto for those only who lightly value the welfare of the child, or his desire to do acceptable work.

2 — Forgetfulness, Laziness

Forgetfulness, indolence even, should not be dealt with too harshly. In trouble, joy, or excitement, the little fluttering heart is apt to exclude all other ideas except the chief thought, causing forgetfulness oftentimes of duty. Under the proper tuition, this heedlessness will gradually disappear.

Sometimes a look will effect better results than will a verbal reprimand. "I will guide thee with mine eye," says our divine Example. Let your eye be ever watchful to give the needed assistance. Train carefully and firmly to prevent these objectionable traits from becoming habits. Uproot them if it can be done. Whenever possible, let the natural consequences of error be its punishment. Let the result teach its silent lesson. Moralizing too much weakens a point. Do not forget that "a word fitly spoken is like apples of gold in pictures of silver."

Forgetfulness to feed the chickens was Olie's besetting sin. To cure it, his mother suggested that his own meal be omitted whenever he forgot.

Promptness is a good antidote for forgetfulness. It is the work that we loiter about doing that is neglected or done carelessly. Promptness should not be misconstrued to mean ruthless haste. Inculcate the motto, "Whatever is worth



HE SOMETIMES FORGOT

doing at all is worth doing well," both by precept and example. Let Solomon's wise words be the monitor of the household: "Whatsoever thy hand findeth to do, do it with thy might."

Yet in our love for our children, and our desire for their perfection, let us not frustrate our own efforts by making so much of slight errors of conduct that when it comes to open transgression, reproof and advice will have lost their potency.

3 — Carelessness

Teach tidiness early in life. Let it be-



FIRST LESSONS IN DISORDER

come a fixed habit. Its importance can not be overestimated. A place for everything, and everything in its place, will save work, worry, and exasperation, and promote order and neatness, which mean much in a home. If the toys are left scattered about, put them away for a while. When not found in their accustomed place, the child will soon learn the cause — and the remedy.

4 — Impoliteness

The lack of good manners in children may usually be traced to the same laxity

in the parents. Do not expect that children will do as you say, and not as you do. The reverse is usually true. True courtesy is manifested in the home as scrupulously as in association with strangers. Were we to voice a disagreement with some person of high distinction or royal title, our words would be most carefully chosen. Then why should not the same care be exercised in our home life?

We give kind words to the stranger,

And smiles to the sometime guest,

But oft to our own the bitter tone,
Though we love our own the best.

5 — Table Etiquette

If the demeanor at the table is offensive, it may sometimes be necessary to ignore the child's presence until his manners are corrected. This is pretty severe medicine for the mother, however, and a good example on the part of the older members of the family may make it unnecessary.

6 — The Desire to Investigate

Little Paul seemed bewitched to play with matches. He was assisted in a practical demonstration of the results which follow carelessness in their use. His reasoning powers grasped the lesson, and the cure was complete. The patent faucet of the oil-can possessed great attractions for Waldo. When the lamps were filled, he was allowed to operate it, and then only. Thus concessions robbed it of the sweetness of stolen fruit, and satisfied his desire.

It is by careful study of the child-mind that one may learn how to completely eradicate various evil tendencies without the necessity of a resort to undue harshness.

RATIONAL TREATMENT IN THE HOME

Conducted by Dr. Laretta Kress, Washington Sanitarium

WARM WEATHER DISEASES

Laretta Kress, M. D.

STOMACH and intestinal disturbances, which are so common during the summer months, are usually attributed to the weather, to taking cold, to some epidemic influence, to almost any cause but the right one. Cheese, milk, flesh food, oysters, pickles, and similar foods are very likely to produce stomach and intestinal disturbances. The healthy stomach is possessed of remarkable disinfecting powers. If the stomach is overtaxed, its disinfecting power is lessened; and the germs taken in with the food rapidly grow, developing poisons, nausea, griping, diarrhea, and various other symptoms as the natural result.

Milk is probably a more frequent cause of stomach and bowel disturbance than any other food. Of specimens of milk examined, a small spoonful of milk contained more than one million two hundred fifty thousand germs. Another specimen of milk examined on the same day contained but very few germs. The difference was due simply to the difference in the care taken in obtaining the milk from the cow. The milk in the one case contained a thousand times as many germs as in the other,—an indication that one of the milkmen must have been guilty of the grossest carelessness.

Some of these germs were those capable of producing poisons of a highly dangerous character. Poisons developed from foods sometimes give rise to symptoms which closely resemble various diseases; such as typhoid fever, scarlet fever, pneumonia, cholera, and even metallic poisoning. Too great pains can not be taken in the care and preparation of food.

It is acknowledged that many of the diseases prevalent in warm weather, especially among infants, are due to the use of infected milk. The mortality among children during the next three months will be greatly increased. The high death-rate will as usual be ascribed to the use of fruits (simply because it is the season for fruits), and everything else but the real cause. Great care is often exercised in filtering and boiling drinking-water, yet, strange to say, few stop to think that milk always contains vast numbers of bacilli, a fraction of which would be considered sufficient to condemn any water as unfit for drinking. The straining of milk through coarse muslin is considered sufficient. This only removes the most conspicuous filth, most of which is held in solution, and readily passes through the muslin, with the small organisms which are responsible for so many summer diseases.

Germs rapidly multiply in warm weather, milk forming one of the best cultures for their growth. Professor Conn, on examining milk within two hours after being drawn, found from 330,000 to 9,000,000 microbes an ounce. Other specimens examined in various American cities were infected to a greater degree, containing from 60,000,000 to 135,000,000 germs to an ounce of milk, during the summer months. The milk supply of European cities has been found infected to a still higher degree, the number of microbes being rarely less than 150,000,000 germs an ounce, often reach-

ing as high as 600,000,000, and even to the enormous amount of 5,400,000,000 in a single ounce. The number varies with the cleanliness of the cow and the milker. These germs cause the souring of the milk as they continue to grow, and also give rise to the rancidity of butter, and the so-called "ripening" of cheese, which is really a process of decay. It has been found that cheese can not be made from boiled or sterilized milk, as boiling destroys the germs. If milk or cream is used which is not known to be free from tubercle bacilli, it should be sterilized or boiled.

Every utensil used in the preparation of an infant's food should be clean. Vessels used to hold the infant's food during its preparation should be scalded with boiling water after previous thorough cleansing. Feeding bottles are to be cleansed after use, first with cold water, then with warm water and some alkaline soap powder. Adhering particles of milk are to be removed with a bottle brush. The bottles are to be sterilized by boiling them in water, and storing them in an inverted position, when empty, to prevent the access of dust to their interior. When new nursing-bottles are bought, in order to prevent them from cracking from the extremes of cold and heat to which they are subjected, they should be annealed. This is accomplished by placing them in cold water, bringing the water to a boil, and allowing the bottles to remain in the water until it is cold.

Only rubber nipples, fitted to the necks of the bottles, should be used. One should be able to turn them inside out for cleansing purposes. The hole in the top should be just large enough to allow the milk to drop rather rapidly when the bottle is inverted. If it issues in a stream, the hole is too large. Before use nipples should be boiled, and may be kept in a saturated solution of boric acid. In feeding the child care should be taken to hold it in such a position that it can easily take its food. A child should not be coaxed to take more food than it desires at the time, and its wishes in this matter should be treated with respect. Any portion of food left over after a feeding should be thrown away, and on no account should it be used again.—Milk and Its Relation to Public Health.



CURRENT COMMENT



Opinions here quoted are not necessarily all approved by the publishers of LIFE AND HEALTH.

The Stomach Not a Refrigerator

WITH the advent of summer come the increased consumption of ice-cream, and, as a consequence, numerous cases of sickness and even death from this supposed harmless delicacy. Not a season passes without its tale of sickness and epidemics, the cause of which is directly traced to eating ice-cream.

The principal ways by which ice-cream is liable to cause sickness are: (1) metallic poisoning; (2) impure flavoring compounds; (3) impure milk or cream; (4) carelessness in allowing any of the ice, salt, or water in the bucket to mix with the cream.

Metallic poisoning is caused by the use of two different metals in the structure of the freezer. Therefore, an ice-cream freezer should be made of but one metal—glass or platinum would be ideal. At least, but one metal should be allowed to come in contact with the cream mixture. This objection, we believe, has been largely eliminated in the modern freezer.

It is criminal to put into ice-cream impure or poisonous flavoring extracts; yet this very thing is sometimes done. To preserve the fruit flavors in the form of jelly or crushed fruit, both formaldehyd and arsenic are known to have been used.

In the making of ice-cream too much caution can not be exercised in the selection of the cream and milk. To be pure and wholesome these products must be secured from sources where the following conditions exist: (1) The cows must

be healthy, well-fed, and kept clean. (2) The milk must be handled in a cleanly and careful manner. (3) The milk should be cooled as soon as drawn from the cows, and kept cool until used. Tyrotoxiçon and other forms of ptomain poisoning, are the direct results of fermentation of unclean milk. . . .

Cream is an excellent food, when taken in limited quantities with other articles of diet. Ice is good in refrigerators to maintain low temperatures, in preserving perishable foods. The stomach is no refrigerator; its contents are not to be preserved. Therefore, under normal conditions, ice and iced foods should not be eaten. However, to those who are still "living to eat," and who will persist in using this luxury, we would give the following suggestion: Ice-cream mixtures (sugar, cream, and flavors) should be boiled before being frozen. The boiling sterilizes the mixture, and thus reduces the chances for fermentation, and consequent poisoning, to a minimum.—*Michigan Health Bulletin.*



A Menace to Health

It is urged by many dispensers of summer drinks that while the artificial or synthetic flavors are not wholesome and are even injurious, yet the small amount in a glass of soda can produce no ill effect. The maxim of many a dealer is "never to use a deleterious or unwholesome article in the composition of products to an extent that will endanger health." The weakness of the

argument is apparent, since in the case of nearly every drug it is the oft-repeated small dose that works havoc in the human system.

It will be of interest to examine some of the flavoring compounds used freely in the cheaper grades of the summer beverages. Banana flavor consists of butyrate of amyl, butyric ether, glycerin, chloroform, acetic aldehyde, and deodorized alcohol. Pineapple consists of all the above in different proportions, and, in addition, oil of lemon and citric acid. Strawberry extract is prepared from a combination of nitrous, acetic, formic, and butyric ethers, butyrate of amyl, oils of orris, bergamont, and orange, with ground ratany. This list might be extended indefinitely, but the examples cited will show that none of the genuine fruit enters into the composition of these flavors. The combination of ethers and corrosive acids employed makes cheap soda not only displeasing to a refined palate, but a direct menace to health.—*Prof. Louis B. Allyn, in Good Housekeeping.*



An Appeal to Mothers

WHAT can we do to have more breast-fed and vigorous babies, and thus a more vigorous race, a healthier type of American men and women, strong enough to resist a tuberculosis invasion, or, for that matter, any other infectious disease to which a weakened organism easily falls prey? For, after all, with all due respect to our beloved President, let me say that as a physician with, I may modestly claim, a somewhat large experience among the poor and poorest of the poor, the middle classes, and also the well-to-do, and as a student of sociology, as well as of preventive medicine, I am not for quantity, but for quality. . . .

It is invariably my custom, when examining a patient, to take down the fam-

ily history, and one of the questions asked is, "How many children were in your family, and were you born the first, second, third, etc.?" In the majority of cases when there is a large family, it is the fifth, sixth, seventh, eighth, or ninth born that has contracted tuberculosis. This is to be explained, on the one hand, by physiologic reasons, the parents being in advanced life and less vigorous; on the other by economic reasons, the latter-born children not being permitted, because of increased expense, to receive that particular care and that good and ample nourishment which was the privilege of the first ones to receive when the family was still small. No amount of wealth, no family prestige or social connection, can give the child that inheritance which it receives when it is born of vigorous parents, nursed by its own mother, and tenderly cared for until it is able to care for itself.

Let the mothers, who for the sake of pleasure and convenience, abandon the divine privilege of nursing their own children, change this unnatural practise. I feel certain that if they but knew the difference in the physical and intellectual make-up of their sons and daughters, when tenderly nursed by themselves, or when handed over to strangers to become bottle-fed babies, they would surely do differently.

I know it will be said that not every mother can nurse her infant. This is true in some instances; but to the woman, the future mother of mothers, I like to say that it has been statistically demonstrated that if one generation of mothers fails to give their infants, and particularly female infants, food from the source which nature has designed, the next generation of mothers will have great difficulty in the natural feeding of their infants. The reverse has also been demonstrated; and it has even been shown

that when mothers, not fully able to supply the infant with food, have supplemented the artificial feeding as best they could with their own breasts, their daughters have been able to fulfil the divine duty of nursing their infants, if not always entirely, at least to a much larger degree than the preceding generation.—*S. A. Knopf, M. D., in address delivered before the Laennec Society for the Study of Tuberculosis, of Johns Hopkins Hospital.*



Hot-Weather Care of Infants and Young Children

THE proper food for babies is mother's milk. No sensible mother needs advice on this point. If she is fairly healthy, her breasts will give all the nourishment that child should have until it begins to cut its teeth—the sixth or eighth month. Up to this time it is a sin to give an infant one morsel of solid food of any kind, or anything but breast milk (if the mother is healthy), except water in moderate quantity occasionally, but never after nursing.

Many infants are killed every year by bringing them to the table with the family, and giving them a little bit of this, that, or the other, which the little stomach is not fitted for.

[If it is necessary to feed the baby cows' milk] see to it that the cans from which your supply is served are clean. Milk as food for infants should be clean as well as pure. This means that you should note the condition of the milk wagons and depots.—*State of Chicago's Health.*



Typhoid Fever and Drinking-Water

It is probably safe to say that if a thorough investigation were made into the source of water infection in communities in which typhoid fever is ab-

normally prevalent, two thirds of the cases would trace back to feces-polluted drinking-water.

As regards the average run of private wells, it may with equal truth be said that the quality of these could hardly be worse. It is obviously out of the question to make frequent analyses of even a small proportion of such wells. No one who is compelled to slake his thirst from such a well can have any real assurance that he is not at the same time taking into his stomach the germ of typhoid fever. But the risk does not end here. People must use milk as well as water, and very frequently the unsuspecting use them in combination, as when the thrifty dairyman dilutes his too thick milk with a little well water. Even where the dairyman scorns such tricks, he probably uses well water to wash his cans and utensils, and in this manner he may unwittingly convey to his customers the disease-producing typhoid germ.

Even when the typhoid germ is absent, feces-polluted water is generally injurious to health. It may and does contain germs which in the human body can give origin to inflammation, catarrhs, and dysenteries.

So absolutely necessary is pure water, and an abundance of it, to the public health, that municipalities should see that citizens are supplied with pure water even before they are supplied with electric lights, macadamized streets, and similar modern conveniences.

Every town of one hundred or more families should secure a public water-supply.

When a town has once installed a public water-supply of good quality, and the water is offered to consumers at the lowest* possible price, all private wells within the region traversed by the public water-mains should be condemned and closed up as menaces to the public health.—*Iowa Health Bulletin.*

THE MEDICAL MISSIONARY AT WORK



Conducted by T. E. Bowen, Takoma Park.

Living in the Tropics

B. J. CADY

IT has now been more than fourteen years since we came to the Society Islands to labor. Until that time we had always lived in a temperate climate, where the winters were very cold, and the summers short; for we were born, and had spent most of our lives, in Wisconsin.

We have summer all the year round here in the islands; but though the sun is very hot, the sea-breezes help to cool the atmosphere, and the heat is not so oppressive as in some other places. Yet if some cold is needed to "brace one up," as we often hear, we do not get it here. We have usually kept in good health, and believe that a reasonable regard of the laws of health, which are also nature's laws, is what has enabled us to keep as well as we have in a strange climate.

We have never had the idea that the foods which are grown in the islands were not so wholesome as those of temperate climes; but on the contrary, we consider them to be just the food best adapted for this climate, with the addition of bread, which to those who have always had it, seems indispensable. Our diet is composed principally of yams, taro, bread-fruit, sweet potatoes, bananas, mummy-apples, mangoes, oranges, coconuts, rice, and bread. We have some other fruits and vegetables occasionally which are more rare, and also use some legumes. At times when we have been

compelled by circumstances to use much imported food, we have not enjoyed as good health as when we were living mostly on the native foods. I would say that we do not make a practise of eating ripe cocoanut meat, though we often eat the soft meat of the green nuts, which is quite digestible and wholesome. The ripe nuts are used mostly in cooking; and though they are very useful for that, it is not good to make a practise of eating the meat as it is; and to eat it between meals is particularly bad. When the meat is grated, and washed with a little water, the liquid from it is strained, and this makes a very good substitute for milk and cream to use in cooking. We can make this very rich, or dilute it considerably with water, just as is needed. We use it for shortening and for flavoring soups, stews, puddings, etc., also for a sauce,—in fact, for almost everything for which milk and cream are used,—and we think it very wholesome. It is rich in fat, and so furnishes all of that element that is needed in the system.

Our systems do not require so much food in a warm climate as where it is cold; for when it is cold, more food must be burned in the body to keep us warm; and when we come to a hot climate, if we do not cut down our rations, we are more liable to feel weak and feverish, and be troubled with colds and other unpleasant symptoms.

We find that in a hot climate frequent bathing is very essential to health and

comfort. We always take a full cold-water bath once or twice each day, if we are where we can have access to the water, and it is usually plentiful here. One who is in the habit of taking cold baths right along, is not likely to be susceptible to colds. And, too, in the hottest weather, when the heat seems almost unendurable, there is nothing equal to the cold plunge or shower-bath to give relief.

Some seem to think that one should avoid exercise as much as possible in a hot climate, but my experience is that we need exercise, only we must be moderate, and not try to rush things too much. It is a good thing to keep busy, but not to work constantly at the same thing. Changing frequently from one kind of work to another, will usually give

all the rest and relaxation that are needed. I believe it is seldom that a worker loses his health simply from overwork, but it is more often caused by hurry, worry, or errors in diet. We, as missionaries, go out to work, not to be waited upon; and if we, with all the light we have on health and temperance, can not keep well and work, how can we

expect the ignorant and degraded natives, who are violating nearly every law of their being, to be able to do our work for us, even though they may be used to the climate? We may get accustomed to the climate, too. If we begin right, I think we shall find that the climate will not affect us unfavorably, even at the first. It was so in our experience, for we never enjoyed better health than

during our first year in the islands.

Of course we should not dress the same in a warm climate as in a cold one. Men readily lessen the amount of their clothing; but women sometimes cling to their close-fitting garments, to the detriment of health; and often wear too much clothing, which makes them feel weak and



NATIVE FRUIT VENDER

tired. Then they think their weariness is caused by the climate. It is customary in these islands for the women to wear loose, flowing dresses; and the white women also wear them at home, and often wear no other style of dress. They are much more comfortable and cool than garments that fit about the waist, and also more healthful.

One of our experienced laborers, in giving advice to a company of missionaries who were soon to enter the island field, said that one of the first and last lessons we need to learn, is adaptation. That is very true. If we want to make a success in our new field, we must learn to adapt ourselves to the people and their customs as far as is practicable, and we must also learn to adapt our diet, dress, and work to the climate and the conditions.

Disease is very prevalent among the natives of these islands. Venereal diseases are almost universal, and repulsive skin diseases are seen on every hand. We are at times situated where we have to mingle freely with the people, living in the same houses with them, and often eating the food prepared by them, though we always do our own cooking as far as possible. The common yellow laundry soap is said to be a good disinfectant, and we always make free use of it, washing our hands with it very frequently after being with the people, and after shaking hands with them.

The natives are not cleanly in their habits, and that is one reason for so much skin disease among them. I am thankful to say that during all our years of residence here, neither my wife nor I have contracted any of the native diseases.

When we have felt a cold or fever coming on, we have generally succeeded in stopping it at the beginning, simply by going without a meal or two, or by eating less food and drinking plenty of boiled water. By this simple means we have usually managed to keep well when all around us were suffering with the prevailing epidemic. Fasting is the best medicine I know of to cure, if taken when the first symptoms of indisposition are felt.

Malaria may not be so prevalent here as in parts of Africa, yet we have

a great deal of it. When one gets it into the system, he has attacks of fever and chills, and it usually develops into elephantiasis. Where there is danger of malaria, a high and dry location is best for a home, where the sun and wind may have free access. There is much more dampness in low valleys than on the hills. The house should be set up a good distance from the ground, so that the air can circulate freely underneath. Too much shade is not good, and rubbish should not be allowed to accumulate in the vicinity of the dwelling-house, for it breeds malaria. See "Ministry of Healing," pages 274-276.

We have always made a practise of keeping the doors and windows of our sleeping-rooms open night and day, so as to get all the pure air we could.

Some white people who come to the islands seem to think they must live just as they always have lived in the country whence they came, even though everything here is very different from what it was there. We have not felt that it would be heresy to adapt ourselves to the customs and conditions of this country, but have tried to do so as far as it would be consistent with health and right. Many of the customs followed here are the very best for this climate; and where they are good, we want to adopt them, and adapt ourselves to the people as far as possible. When we came, we adopted this country as our home, though I can not say that we felt at home for some time. We are planning to stay as long as the Lord does not call us to take up work elsewhere; or until the Lord comes, and all the work on earth is done. We are looking for a city yet to come, and not until we enter there, may we expect to find everything just right, and the effects of the curse entirely removed.

Papeete, Tahiti.

QUESTIONS AND ANSWERS.

Conducted by D. H. Kress, M. D., Takoma Park Station, Washington, D. C.

Questions on health topics which are of general interest are answered in this department. All queries should be addressed to Dr. Kress, with stamp enclosed for reply by mail.

321. Goiter.—"1. What are the symptoms of goiter? 2. Does it affect the general health? 3. What treatment is recommended?"

Ans.—1. In simple goiter, there is enlargement of the thyroid gland. Unless the gland is much enlarged, there is no inconvenience experienced locally or generally. When compression of the windpipe is caused by the growth, difficulty in breathing is experienced.

2. No doubt the general health is affected by it. This, however, is usually so slight that it is not noticed by the patient. Exophthalmic goiter is, however, of a more serious nature. In this disease, associated with enlargement of the thyroid gland, there is protrusion of the eyes, with a staring expression, throbbing of the arteries, and rapid pulse. Nervous symptoms are present, and attacks of diarrhea or vomiting may occur. Flashes of heat and profuse perspiration are occasional symptoms.

3. Rest, with ice-bags applied to the heart. The galvanic current is of value. The essential thing is to build up the general health by the use of nutritious foods, avoiding delicacies of all kinds. General treatments, as employed in a sanitarium, are highly beneficial in such cases.

322. Meat Substitutes—Epsom Salts—Drinking at Meals.—J. M. B., Ill.: "1. Is peanut butter a wholesome article of diet? 2. Will its continued use improve the digestion? 3. What is the effect of using epsom salts as a laxative, say once or twice a week? 4. Is it injurious to a person of ordinary health to drink a cup of water or of cereal coffee at the end of the meal? 5. What foods having meat value can be used by a person who is adopting a vegetarian diet, and who finds dried peas and beans and raw nuts heavy and depressing, sometimes occasioning headache?"

Ans.—1. Yes.

2. It should be used sparingly.

3. This laxative brings about an abnormal condition of the alimentary canal, which results in catarrh, and aggravates the condition it is designed to relieve. Constipation can not be cured by its use.

4. It is best to do without drinks.

5. Eggs, malted nuts, and almond butter.

323. Shortness of Breath Following la Grippe.—D. M. B., Wis.: "What would you suggest for a person sixty-five years old who has suffered with chronic bronchitis for five or six years, and who this spring has had la grippe, leaving him so short of breath that he can only walk very slowly?"

Ans.—There is probably a weakened and diseased condition of the heart, brought on by la grippe, or perhaps by the remedies employed in counteracting it. It is necessary to be careful for a few weeks not to overexert. Eat simple, nutritious foods, and keep quiet.

324. Bright's Disease.—"1. What would be a healthful diet for a man who has Bright's disease? 2. Are sanitarium treatments beneficial in this disease?"

Ans.—1. Well-baked breads, puffed rice, granola, and fresh fruits may be used freely. When desired, vegetables may be taken in place of fruits. Beans, peas, lentils, nut preparations, and eggs should be used very moderately, and meats not at all. Tea, coffee, cocoa, and other stimulating drinks should be abandoned, as they increase the blood pressure and intensify the disease.

2. The general weakness and the mental confusion or dulness experienced by one who has Bright's disease are due to the failure of the diseased kidneys to eliminate all the poisons they should. To relieve the kidneys by increasing the activity of the skin is one aim of sanitarium treatments. By putting the kidneys at partial rest, op-

portunity is afforded for inflammatory conditions to subside, and for healing to take place. The blood pressure, which is usually high in such cases, can also be reduced and regulated by sanitarium treatments better than by any other means. For these reasons the treatments given at sanitariums, combined with the diet, help cases of kidney disease after all other measures have failed.

325. Saccharin.—"Is saccharin a safe substitute for natural sweets?"

Ans.—Saccharin is a dangerous sweet. It acts as a gastric irritant, and will bring on a serious condition if its use is prolonged. Honey is probably, next to the sugar in fruit, the best sweet obtainable. It should, however, be used sparingly.

326. Pimples, Blackheads, Etc.—M. H., Neb.: "Please tell me what will cure pimples, blackheads, coarse, muddy complexion, and what will take hair from my face."

Ans.—Before much good can be accomplished for this condition of the skin, it will be necessary to be certain that there is not some underlying cause in the digestion or in the sexual organs. Any difficulty here must be eradicated before local treatment will be effective. The diet must be attended to, constipation relieved, and other difficul-

ties of this nature cured. For local treatment perhaps nothing is better than hot fomentations applied to the parts. A good way to apply the fomentations is to make a compress of cheese-cloth, and dip it in water as hot as can be borne. Apply it to the face with frequent changes, for about ten minutes at a time, and repeat this two or three times a day, following the application with spirits of camphor. The spirits of camphor will smart at first, but will be borne better later. The only satisfactory way of removing hair from the face is by means of the electric needle; this should be done by a physician. (Republished by request.)

H.

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Treats Drunkenness as a Disease.—The new mayor of Harrisburg, Penn., has instructed his chief of police to take "drunks" who are not disorderly to their homes instead of to the lockup. He believes this sort of treatment will do more than anything else to make the "drunk" feel ashamed of himself. Now, if he will have sent to the lockup every saloon-keeper who makes a man drunk, he will be on the right track.



From stereograph, copyright by Underwood and Underwood, New York City

EDITORIAL



Exercise for Health

WORK has been defined as "anything one *has to do*." The little girl who can romp by the hour playing tag, hide-and-seek, or other boisterous games, is straightway "tired" when it comes to the dishes. And she really *is* tired. With the interest and enthusiasm that accompanies play, there is no sense of physical exhaustion until the little store of energy is used up. The man who would find it exhausting to saw a few sticks of cordwood might use a much greater amount of energy in a bicycle spin, or on a mountain climb, or in a game of football. And it is certain that the exercise which is taken with a zest, exhausts the body far less than a similar amount of exercise taken from necessity. The man who daily goes through a stated number of gymnastic movements in his room is spending his time to poor advantage unless his mind is so enthusiastic with the thought of the beneficial results to be derived therefrom as to overlook the tediousness of the process.

The most beneficial exercise is that in which the interest centers. For this reason, games, when not carried to extremes, are vastly superior to calisthenics, except that class of gymnasium work in which the social feature furnishes the mental stimulus so valuable in games.

But more valuable even than athletic work is useful work in some chosen occupation,—chosen because congenial and

because permitting an agreeable and beneficial reaction of the mind on the work and of the work on the mind. Such a work is gardening to a lover of plants and practical botany.

In choosing a life occupation one should select such work as will permit the freest untrammelled scope of the mind, so that, though it may be a means of livelihood, it is always a work of love, and not a necessity.

With such work one will scarcely require a holiday. One can hardly think of such men as Burbank or Edison taking a "day off." Every day is a holiday; for there is nothing so dear to them, or so important, as the work in hand, and nothing to them could be such a bore as to have to spend a day in which they could not do effective work in their chosen line.

Again: there are strenuous workers, who in their way take extensive holidays. There is our beloved President,—versatile, powerful in everything he undertakes, because he undertakes everything he does with an earnestness born of intense love,—who probably never needs to take a vacation because he is exhausted. He takes it as a means of recharging that storage battery which to some of us seems inexhaustible; but which is so, perhaps, because he recharges it before it shows any symptoms of lessened power. He keeps his steam at high pressure, and always has on hand a reserve supply of coal and water, so that he is never taken unaware. To

him vacations or holidays are renewals, taken before the need is felt.



Holidays for Health

Two classes of people there are who receive little benefit from the ordinary holiday. One man, however, much he may work, physically or mentally, never worries. During his vacation, he might continue his work to advantage; for it would not harm him. Another, whose habit of worry is fixed, continues the soul-harrowing process through his vacations. These are the extremes.

Fortunately, there are many, who, though borne down by worry in the prosecution of their daily work, can throw it off on a vacation trip, so that they return — even after some unhealthful indulgences — refreshed and strengthened for another year's strenuous work.

For the worry-worn worker who needs most of all to stop the worry-wheels that keep up a constant buzzing in his head, the well-conducted sanitarium, with its atmosphere of peace and good-will, its freedom from the sordidness and egoism of the commercial, political, and social worlds, and its system of instruction in healthful living, enforced daily by effective object-lessons, affords an ideal "summer resort." And this it does without correcting one evil by substituting another,—without removing the worry-vice by the substitution of pleasure-vices.

The man who has been accustomed to carry his worry through his vacations is in such an institution not without hope. Though worry is the cause of bodily disease, it is itself often the result of some physical disorder,—indigestion, perhaps. Poisons produced in the intestinal canal may be absorbed into the blood, and produce the chronic pessimism that casts a dark shadow over the unfortunate life, and seemingly blights it. Many — perhaps I might better say all

— of this class of patients are susceptible to the treatment — dietetic, mechanical, thermic, electric, and moral, known collectively as physiological therapeutics — which is given in a well-conducted modern sanitarium.

In these cases of constitutional worry there is a "vicious circle." Two causes, one physical and the other mental, react on and strengthen each other, and the remedy must be twofold, and applied with the skill born of long experience.

The successful doctors and nurses for this class of patients are those who love the work, and who are so heartily in sympathy with their patients that they can personally enter into the details of their lives, and gradually but surely lift them to a higher plane. The physical treatment goes hand in hand with the moral, and the result is that the "vicious circle" is broken, the patient realizes a new power in life, his courage returns, and finally he is victor!



Is Ice Dangerous?

DR. WILLIAM H. PARK, a well-known sanitarian and health officer of New York, read a paper at Atlantic City last June, before the Section on Hygiene and Sanitary Science, in which he gives the results of the study of the ice problem in New York City, both by statistics, and by laboratory experiment. He concludes: "The danger from the use of ice produced from polluted water is always much less than [from] the use of water itself. Every week that the ice is stored, the danger becomes less, so that at four weeks, it has become as much purified from typhoid bacilli as if subjected to sand filtration. At the end of four months the danger becomes almost negligible, and at the end of six months, quite so. The slight danger from freshly cut ice, as well as the natural desire not to put even sterilized frozen sewage in

our water, suggests agreement with the report of Dr. Jackson that portions of rivers greatly contaminated, such as the Hudson River within three miles of Albany, should be condemned for harvesting ice for domestic purposes, such ice to be used only where there is absolutely no contact with food."

It would seem from this report, and from the report of the government physicians who are studying the typhoid-fever problem in the city of Washington, that ordinary natural ice is likely to be safer than artificial ice; for the artificial ice is ordinarily used before there has been any opportunity for the low temperature to destroy the germs present.



The Conservation of Infant Life

AMONG the problems that confront the sanitarian, none is of more importance than that of the conservation of infant life. The number of preventable deaths among children under five years old is appalling. One of the most important causes of infant mortality is diarrheal disorder, manifesting itself most conspicuously in the hot summer months. In Chicago, for instance, the average number of infants under two years of age dying of diarrhea during the winter is four a month. During the hot season the average monthly mortality from the same cause is more than one hundred. In New York City the deaths from diarrheal diseases of all kinds for children under five years is about forty a week in the winter months. In June the harvest of infant death from this cause begins rapidly to increase, until, in July and August, there are more than five hundred baby funerals a week from this cause alone.

These deaths occur largely among bottle-fed infants. This is attributed partly to the fact that cows' milk is by no means a perfect substitute for mother's milk,

the difference in nutritive value and digestibility lessening the child's powers of resistance, and making it more susceptible to disease processes. But more significant is the fact that milk, especially city milk, is rarely if ever clean. Often it contains as many germs as ordinary sewage, many of the germs being capable of producing intestinal and other dangerous disorders.

Efforts to secure purer milk, or milk with a smaller germ content, have, when successful, been followed invariably by a notable reduction in child mortality. These efforts, which have been made in two or three different directions, are all confronted by formidable obstacles.

Some believe that the solution of the milk problem lies in the close supervision of the milk from cow to consumer, with heavy fines to punish delinquents, and compel those who handle milk to be clean. But it costs more to produce clean milk, and many of those who handle milk are more or less filthy by instinct, habit, and education, so that the effort to secure clean milk for a city which is supplied by dairies scattered over several States, meets with difficulties almost unsurmountable. On account of the unclean handling at various stages, the difficulty of keeping the milk sufficiently cool, and the length of time from the cow to the consumer, the milk in large cities is often abominable, notwithstanding the most rigid supervision that the law can secure.

Others, seeing the difficulties in the way of securing marked improvement in the general milk supply, have attempted to secure a limited supply of pure, clean milk, "certified milk," especially for bottle-fed children, from intelligent and responsible dairymen, who agree to subject themselves to the closest supervision of all processes of obtaining and marketing the milk. The only difficulty with this plan is that the people, or a large

majority of them, will not pay the difference in cost between dirty milk and clean milk.

Others recognizing the difficulties in the way of securing either a marked improvement in the general milk supply, or a limited supply of clean, certified milk for those who most need it, advocate the Pasteurization of all milk, at least all milk destined to be used for infant food.

Objection is made to this plan on account of the danger that, with Pasteurization, there will be a tendency to discontinue even the present imperfect system of milk inspection, and rely entirely on Pasteurization instead. The contention that Pasteurization of dirty milk does not make it clean, is just. Again, the objection is made, based on the observation of physicians, that heating milk sufficiently to destroy germ growth, so alters it that it is not so well utilized by the child as raw milk. It is claimed that the continual use of such milk is likely to be followed by nutritional disorders and scurvy. Another objection to the heating of milk is that it destroys the germicidal property present in raw milk. This has been proved by repeated experiment. While heating milk retards for a time the growth of germs, the milk so treated will later be found to contain more germs

than milk which has not been so treated.

In a recent bulletin of the Marine Hospital Service, entitled "Milk and Its Relation to Health," the reasons for and against the heating of milk for children are quite freely discussed, with the conclusion that for children it is best to Pasteurize milk; that is, heat it to 140° for twenty minutes. The writer of the articles in the bulletin inclines to the belief that scurvy is not caused by the heating of the milk, but by the use of milk too poor in proteids and mineral salts, and too rich in fat, such as is obtained by the use of diluted "top milk." A more recent bulletin from the same source gives the result of extensive experimental work, showing that a temperature of 140° for twenty minutes will destroy the dangerous germs in milk. The germs experimented with were those of tuberculosis, typhoid fever, diphtheria, cholera, dysentery, and Malta fever.

Whatever may be done to improve the conditions of the milk supply in our cities, it remains certain that milk, especially city milk, and particularly during the warm season, is anything but an ideal food for children — or any one else, for that matter; and no intelligent mother, who can possibly furnish breast-milk, will subject her infant to the dangers of bottle-feeding.

Summer diarrhea of infants is most probably traceable to the contamination of milk. At the same time we are not sure how successfully the disease-producing agents can be combated by a later heating of contaminated milk. The reader sees, therefore, that I place the greatest stress upon clean methods of milking and of keeping milk. . . . Without cleanliness, any method of preserving milk, and especially the use of heat, may become dangerous. All such methods attack and destroy first of all the harmless acid-producing bacteria that indeed may even be useful to the digestive process, while the harmful germs, otherwise held in check by the first organisms, now grow only the more luxuriantly.—R. W. Randnitz, M. D., Austria, in *Medical Record*.



Cigarette Smoking in Great Britain.—The cigarette habit has attained gigantic proportions in Great Britain.

Kissing-Games Prohibited.—The London County Council has passed an ordinance prohibiting kissing-games by children attending schools under the jurisdiction of the council.

Anti-Tuberculosis Legislation in the District.—The District of Columbia now has a law requiring the registration of all cases of tuberculosis, and providing for the free examination of sputum in suspected cases.

British Women Addicted to Big Feet.—A prominent London shoe manufacturer, who claims to know whereof he speaks, says that the women of England wear 6's and 7's as against the 4's and 5's of their American sisters.

Lawlessness of the Liquor Interests.—In an Indiana town which has no saloons, a druggist had often been asked to turn his drug-store into a "blind tiger;" and on his persistent refusal to do so, his store was destroyed out of spite.

Cambridge Crew Diet.—The Cambridge crew are this year using large numbers of oranges, it is said; and it is believed that by means of this addition to their dietary, they have been able to avoid influenza. The Oxford crew have since added the orange to their menu.

Gives a Girl His Seat, and Dies.—A New Yorker, aged sixty-eight, riding on a subway train, rose and gave his seat to a school-girl of fifteen. Hanging to the strap for two miles, he became pale, sank down at the feet of the girl, and died in a short time. He had heart-disease. For a thoughtful act, the noble old gentleman died; but what of the school-girl, who was so thoughtless as to accept a seat under such circumstances?

Killed by Oysters.—A Washington paper tells of a father, mother, and daughter of thirteen, living in New York City, who had eaten infected oysters. At the time of the report, the father and mother were dead, and the daughter was in a dying condition, all from typhoid fever.

Whisky Spree Ends in Death.—It is said that two New York men drank between them two gallons of whisky in four hours. One died. The other, who had been hardened by several years of heavy drinking, survived, through the efforts of the ambulance surgeon. Saved, perhaps to lead others on to death.

Congestion in Cities the Cause of Disease Transmission.—Dr. Abraham Jacobi, in a recent address at the Conference on Congestion of Population, declared that it will be impossible to put an effectual check to the spread of epidemics until millions of dollars are expended in a radical remodeling of tenement houses.

Chickens Go on a Spree.—The owner of a flock of chickens threw out a lot of canned cherries which had "soured." The chickens partook ravenously of them, and in a short time showed all the symptoms of regular old-time drunkenness. The next day they appeared to be all right, with the exception of a few that acted as if they had headache.

"Sugar Headaches."—One physician believes that many so-called "bilious headaches" are caused by the use of excessive amounts of sugar, or of sugar-producing substances, such as starch. He believes that the composition of milk gives us a suggestion of the proportion of sugar needed by the body. He forgets that milk is the food of an animal when its principal function is to grow; for which reason it needs a much larger proportion of tissue-building material, and less of energy-pro-

ducing material, than later in life. He forgets, also, that headaches are most frequent among heavy meat-eaters, or those who, to a heavy meat diet, add a lot of carbohydrate. The temperate abstainer from meat, even though he uses an excess of carbohydrate, as compared with the proportion in milk, is rarely subject to headaches.

Doctors Short Lived.—An insurance man is authority for the statement that doctors are unusually hazardous lives, their life expectancy being less, and their susceptibility to disease being more, than the average. As a rule doctors are heavy users of tobacco, and many of them use other drugs, such as morphin.

The Dog as Food.—Official statistics of the German empire show that the practise of slaughtering dogs for food in that country is a common one. It seems that some of the Germans have acquired a taste for dog meat: this is not strange when it is remembered that sausage is a common article of diet in that country.

"Cabbage Snake" Harmless.—The secretary of the State Board of Health of Indiana, learning of "a cabbage snake" scare in that State, has told the people that these creatures are eaten by the ton every year, and that no harm ever comes of it. He says that if people were half as much concerned about important health matters as they are about cabbage snakes, they would be better off.

X-Ray Victims.—Mr. Hall Edwards, one of the earliest X-ray investigators in England, has developed cancer of both hands as a result of exposure to the rays. One hand has been amputated, and he may lose the other. A movement is on foot to provide a fund for his maintenance. Several other X-ray workers are reported to be suffering more or less with cancerous growth, the result of exposure.

The Prevention of Flies.—Last fall the health officer of London, as the result of a series of careful observations, became convinced that the accumulation of refuse, and especially of manure, is favorable to the propagation of great quantities of flies. These observations demonstrate the wisdom of the law which requires that no refuse shall be permitted to remain near houses for more than twenty-four hours.

Institution for Threatened Insanity.—The Hudson River (New York) State Hospital is to have a ward added, with accommodation for eighty inmates, for the reception of patients who fear that they are becoming insane. No records of insanity will be kept. Germany has already experimented successfully with incipient insanity, and other institutions besides the Hudson River Hospital will prepare to do a similar work. Insanity, like tuberculosis, is most successfully treated in its incipient stage.

Health Work for Foreigners.—Because of the large number of foreigners in the State of Michigan, and of the frequent outbreaks of contagious diseases among these classes, the State Board of Health has ordered instructions concerning the prevention of such diseases printed in several foreign languages. The board has also authorized the posting in public places of placards warning against the danger of the spitting habit, and giving brief, pointed instruction regarding the spread and prevention of tuberculosis.

A Health Catechism.—The Italian Parliament has appointed a commission composed of physicians to prepare a catechism on hygiene and sanitation, for use in all the national schools. It is thought that the continued repetition of these questions and answers will make such an impression on the young that they will almost unconsciously live in a healthful manner as they grow older. It is believed by some of the most optimistic that as a result of the catechism and its constant influence, there will be produced a sturdier race than has ever been known. Hope springs eternal in the human breast.

Typhoid Carriers.—When a person who has had typhoid fever has an attack of gallstone colic, the presumption is strong that his gall bladder is still infected with typhoid bacilli. In fact, he is a "typhoid carrier," and his discharges, if not properly cared for,—that is, if they are allowed to contaminate drinking-water or food,—are a constant menace to others. One patient, after an attack of typhoid, had for twenty-nine years recurring gallstone attacks, showing that during all that time he continued to harbor in his body the typhoid germ. Bacteriological tests revealed the presence of typhoid bacillus in this case, and made the diagnosis certain.

Two Killed by Soothing Sirup.—A pair of twins in St. Paul, Minn., died after receiving from the parents some soothing sirup, given, perhaps, so that the parents might rest in peace. The twins rest in peace.

The Prevention of Spitting by Publicity.—Minneapolis car conductors have orders to hand every person seen spitting on a car a red card containing the ordinance against spitting. The unenviable publicity usually prevents a second offense, and acts as an efficient deterrent to others.

Sea-Water Cures.—The newspapers tell of a Dr. Quinton, who is said to have performed some wonderful cures by the injection of sea-water into the blood-vessels of his patients. To demonstrate the harmlessness of sea-water when properly diluted, the doctor bleeds dogs nearly to the point of death, and then injects sea-water. Within twenty-four hours they are able to eat and run about as usual; and at the end of a week, their blood is as rich as that of any dog.

Feeding Schoolchildren at Public Expense.—An important problem demanding solution both in England and America is the one which arises because of the neglect of poor, ignorant, or vicious parents to provide adequate nourishment for their children. There is danger either way. To feed means to increase the class of public paupers, and to remove what little self-reliance some of the submerged class still have. Not to feed, means to permit the coming generation to grow up physically unprepared to meet the battle of life.

An Inexpensive Surgical Dressing.—The ash of anthracite coal has been recommended as a cheap, efficient, non-irritant dressing, capable of absorbing a large quantity of secretion. It should be sifted through a flour sieve, and wrapped in a piece of sterilized cloth, to form a dry, absorbent poultice. This dressing does not work well when the secretion is thick and gummy.

The Anti-Tuberculosis Fight in New York.—The Committee on Prevention of Tuberculosis of the New York City Charity Organization Society, has made a report covering twenty months' work, which shows that home treatment is a dangerous substitute for hospital treatment, and that it is most difficult to effect cures in the tenements. The best results were obtained where patients could have open-air treatment. The day camp, when it can be made accessible to a tenement district, proves to be a valuable aid in the treatment of tubercular patients.

Of Course Prohibition Does Not Prohibit!—The Belleview Brewing Company, one of the oldest in the city of Cincinnati, Ohio, has been losing so much of late, by diminished sales of beer, on account of the temperance agitation, that a minority of the stockholders are suing for a receivership. Another cause for the recent losses mentioned by the stockholders is the depreciation of real estate in "dry" territory and in localities likely to become "dry." Never mind, good friends, just let the property be turned to legitimate uses for a few years, and the value of real estate will go the other way.

To many of those living in the cities who have not a spot of green grass to set their feet upon, who year after year have looked out upon filthy courts and narrow alleys, brick walls and pavements, and skies clouded with dust and smoke,—if these could be taken to some farming district, surrounded with the green fields, the woods and hills and brooks, the clean skies and the fresh, pure air of the country, it would seem almost like heaven. Cut off to a great degree from contact with and dependence upon men, and separated from the world's corrupting maxims and customs and excitements, they would come nearer to the heart of nature. God's presence would be more real to them. Many would learn the lesson of dependence upon him. Through nature they would hear his voice speaking to their hearts of his peace and love, and mind and soul and body would respond to the healing, life-giving power.—Mrs. E. G. White, in "Ministry of Healing."

LIFE AND HEALTH

AIM: To assist in the physical, mental, and moral uplift of humanity through the individual and the home.

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Bad Milk and Disease

THIS is the time of year when the number of cases of infantile diseases, due to the consumption of bad milk, is on the increase, and it is well that those who are concerned about the health of the people in their community should give the subject very careful consideration.

The harmful changes which milk undergoes on standing are due to the action of bacteria. Every endeavor should therefore be made to lessen the number of bacteria in milk as far as possible. This may be done by the application of two measures: first, the observance of cleanliness in the dairy and in the handling of milk; and, second, the rapid cooling of milk immediately after it is obtained from the cow, keeping it at a temperature preferably below 40° F. Cities which have a thorough inspection of their milk supply, and have paid especial attention to these two points, have had a marked reduction in infant mortality.—*Iowa Health Bulletin.*

✽

Where Chronic Drunks Come From

THE chronic inebriates are recruited mainly, not, as might be expected, from the day-laboring class, but from tradesmen, clerks, waiters, mechanics, those who live indoors, and especially those who work indoors; also from the very poor. The alleviation of poverty will doubtless in some degree lessen inebriety.—*Julian Willard Helburn, in American Magazine.*

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Tuberculosis Nurses.—Philadelphia has a training-school for the preparation of nurses for tubercular patients. It has been difficult to secure good nurses for consumptives, as trained nurses are often so afraid of infection that they either decline to accept cases, or else fail to give them proper attention. But there was a class of young people anxious to take up this neglected work. These were former tubercular patients, in whom the disease had been cured or arrested, and it was with these that the training-school was started. Such persons have three very excellent qualifications for this work: they are possessed of a good degree of intelligence and character, for the best physician can not cure one who has not sufficient sense and self-control to co-operate in the treatment, when in sight and out of sight; they are thoroughly impressed with the necessity of preventing infection and re-infection, and with the advantage of rational hygiene in the matter of air, sunlight, diet, exercise, clothing, etc.; having passed through the experiences of the patient, they are more sympathetic

and tactful. Nurses having these qualifications, and having added thereto two years' special experience in tubercular nursing, should make admirable nurses for this special field of work.

✽

Is the Horse a Menace?—New York health authorities assert that "the horse, being the principal source of dust, disease, germs, and flies in the cities, is therefore one of the chief causes of the abnormal death-rate in modern municipalities." Dr. Woodward, health officer of the District of Columbia, says he is not inclined to take seriously this charge against the horse. He says that "the spread of disease through the agencies mentioned is preventable," and "the sooner we stop blaming other things for our ailments, and begin to blame ourselves, and to do what we can to prevent them, the better off we will be." The looker-on will surmise that the New York "authority" is the proud possessor of an auto, and that plain Dr. Woodward still navigates after the manner of our forefathers.

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ANNEX