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Life & Health

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SCHOOL CHILDREN HARVESTING CROPS AT BETSY HEAD PLAYGROUND, BROOKLYN

Life & Health

HOW TO LIVE

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The School Child's Basket Lunch

L. A. Hansen



THE preparation of the school child's basket lunch is one of the phases of the feeding question that deserves careful attention, but from the very nature of the circumstances, too often does not get it. Putting up, day after day, a lunch that will be attractive, palatable, nutritious, and wholesome, is one thing that does not become self-operating. A proper lunch does not come by accident; somebody must be back of it. It cannot be thrown together, composed of left-overs or pick-ups.

The midday meal of the school child must be based on the requirements of physical growth and mental development. If the child comes home for the noon meal, the problem of its proper feeding is solved in the preparations for the rest of the household. If a school lunch must be put up, it should include all the essential food elements that would be supplied in the home meal.

Eating a meal at school from a pail, basket, or paper bag, does not alter the food requirements of the child, unless it be to make them the more exacting. At best, such a lunch has its lacks or disadvantages. Even though its preparation be ever so good, it cannot equal a warm meal eaten at home with agreeable surroundings and conveniences.

Proper food for the child is a prophylactic measure. It is one of the strongest safeguards against disease, and one that is absolutely indispensable if good health is to be maintained and normal growth and development are to be insured.

Certainly it is by far the better plan to provide a regular dietary that makes for health, than to have to alter the diet after disease has once begun. More can be accomplished by precautionary and preventive measures than by corrective

ones. Irreparable damage may be done the growing child by failure to provide a daily fare adequate for all its needs.

No part of the child's education is more important than that pertaining to the requirements for health. Early life is the opportune time for a right education in food selection, and the lunch basket may be made a daily practical demonstration of what to eat.

The city child on his way to school has to run a gantlet of candy stores, bake-shops, ice cream venders, and other forms of temptation to harmful indulgence. Often the noon lunch consists wholly or in part of such stuff as can be purchased en route to the school, or at a store near by. It is needless to say that the child, left to his own capricious appetite, is quite liable to make a choice not the best adapted to nutrition and body building. Greasy pastries, questionable confectionery, titbits, and ice cream cones are poor substitutes for substantial and wholesome rations.

In a number of cities the important relation of food to health has led to the establishment of a school lunch system whereby children are supplied with wholesome food at a minimum cost. In New York City, out of 330,000 children examined 14,000 were found to be suffering from

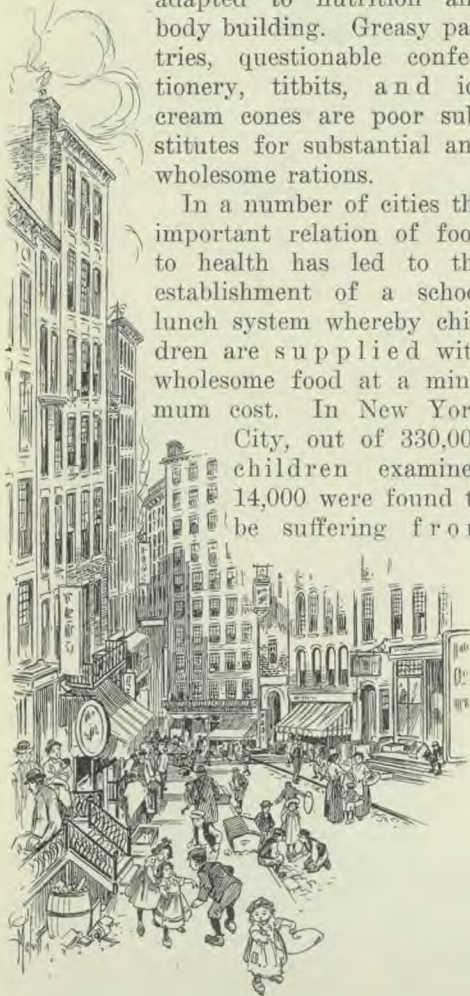
malnutrition. Assuming that this ratio holds for the remaining unexamined two thirds, it is estimated that there are in all about 40,000 cases of malnutrition in that city.

The principal danger of malnutrition is a lowering of the vitality of the child, making him susceptible to disease. Such a child is a menace to his schoolmates in that he may easily become a carrier of infectious disease germs. His educational possibilities are below par, his mind is dull, he cannot pay good attention, and he not only falls behind in his studies, but is inclined to retard his classmates.

The diet of the school child should be adequate at all meals, school days and non-school days, the meals eaten at home and those eaten at the school. Provide a school lunch that contains the necessary food elements. Let it be abundant. Give a variety, and make it seasonable, palatable, and attractive.

Good bread is probably the first essential to the diet of school children, as of everybody else. It should always be light and well baked, with a crisp, deep crust, an elastic crumb, a good flavor, and never sour. A variety in breads is more important for the basket lunch than for the home meals. Variation may be had from whole wheat, corn, rye, or oatmeal breads; nut, raisin, and date breads; various biscuits, rolls, wafers, and crackers.

The sandwich is a convenient and popular lunch item. As a rule the crust should not be cut from the bread. Do not cut the slices too thick. Thick slices look still bigger to young eyes. Cut into triangles, squares, half slices, or strips for variety. Chopped parsley or celery, onion, lemon juice, or other flavoring substances may be used in the filling.



Wrap in oiled or clean white paper.

Among sandwich fillings are the following: Scrambled, minced, or sliced hard-boiled eggs; chopped nuts of various kinds; peanut butter; mashed beans, peas, or lentils; jellies, or fruit marmalades; chopped figs or dates; minced ripe olives; cottage cheese, alone or with sliced ripe olives; honey, brown sugar, or maple sugar; tender spinach leaves with dressing; lettuce or celery; mayonnaise dressing; thinly sliced tomato or cucumber; grated carrot with dressing; thin slices of banana. The sandwich may be made the means of inducing the child to eat various wholesome and suitable foods that might not otherwise be relished. While it is desirable to make things dainty (and this goes a long way), remember that daintiness does not take the place of actual nutrition.



Fruits, raw and cooked, make an excellent article for a lunch, baked apples being especially good. Various vegetables may be used, raw and cooked. Give consideration to the need of laxative foods. Constipation may begin early and more readily in those of sedentary habits.

Be especially careful not to use foods that will quickly spoil. If using left-over foods, take into account how long it will be until the lunch is eaten, remembering that food kept inclosed, perhaps in a warm place, will spoil the more readily.

Use care in packing the lunch. Perhaps it has to be carried some distance over dusty roads or under a buggy seat, on a street car, or in a railway train. Baskets are suitable for carrying the lunch, as they permit of a circulation of air. Tin boxes should have holes punched in them to allow ventilation. Baskets and tin boxes should be thoroughly cleaned and aired after using.

Provide paper or cloth napkins to spread on the school desk or on the grass

when the lunch is eaten. Napkins made of cotton crepe will cost but little, are easily washed, and do not need to be ironed.

Jelly tumblers with lids make excellent food containers, as do also bottles with screw tops, and vaseline and cold cream jars. Use small tin boxes for strongly flavored sandwiches.

If you wish to gratify the sweet tooth of the child, better make your own simple candies, and include a suitable portion with the lunch, rather than provide money with which to buy candy at the store. It is cheaper and safer.

Bear in mind that the lunch basket cannot contain everything necessary for the healthy growth of the child. While much depends on the school lunch, some things have to be provided that cannot be packed in lunch boxes. There are a number of health essentials that must be supplied at home. A wholesome, warm breakfast before going to school, and a warm lunch in cold weather when he comes home after school, are important.

See that the food is eaten at proper intervals and with regularity. Do not allow eating between meals, even of small portions of fruit, cake, or candy, as this interferes with the normal appetite and digestion. Sweets should be allowed only at the close of meals, and in limited quantities.

In order to nourish the body, food must be slowly and thoroughly chewed. The growing child should not be allowed to drink tea or coffee, for these do not nourish the body; but disturb the nervous system and interfere with digestion. Adults might bear this in mind for themselves.

Besides a good supply of nutritious food, a child requires plenty of pure air, a reasonable amount of physical work, and sufficient play, rest, and sleep. These are all essential to the fullest development of strength and vitality.

Control of Infectious Diseases in School

G. H. Heald, M. D.



THIS paper is written, not for health officers and school inspectors, who are supposed to be conversant with their duties, but for parents; because the latter, if properly instructed, have it in their power, very largely, to abolish the common infectious diseases from the schools.

This latter statement may be startling to many, but evidence that such diseases as diphtheria, scarlet fever, and measles are largely preventable, is fast accumulating. In every case where these diseases are transmitted in school, we may be fairly certain that some mother, more often from ignorance than from indifference, has failed to do her part. Because so little has been done in the way of instruction in these matters, ignorance is in a sense excusable; indifference is not. It is the purpose of this paper to help scatter broadcast the knowledge that should enable parents to reduce to a minimum the annual recurrence of epidemics of children's diseases, with their high mortality.

It is a notable fact that nurses and doctors, though almost constantly in contact with infectious disease, rarely succumb to infection. This is not because they are more immune than other people, but because they avoid the common

practices by which disease is transmitted. Now if parents would learn these precautions, and so order their lives as to form right habits in their children, they would probably avoid many heartaches, and perhaps some doctor bills and funerals. Children, we say, are "imitative." They are suggestible. They "pick up" with remarkable avidity what they see their elders do. If father drinks out of his saucer and eats soup with his knife, mother's attempts to train the children in right ways are seriously handicapped. If parents attempt to teach the children the importance of certain hygienic practices which they themselves neglect, their teaching will fall on deaf ears. If at home everybody drinks out of the same cup or dipper, it will be hard to train the child not to drink out of any public drinking cup when occasion offers. If it is the custom for all to wipe on one towel, the child will be liable to use a common towel when in some public place. There may be comparatively little danger in the home from such practices, but even there the danger that a transmissible, or "contagious," disease will go through the en-



tire family when one member is infected, is greatly increased if the members of the family use a towel, cup, or other utensils in common without thorough cleaning. Moreover, if a member of the family has some infectious mouth disease, as pyorrhea, other members, by drinking from the same cup, may contract it; or if one has sore eyes, every one using the same towel may contract the disease.

What follows may be new and surprising to some, but it has been well established; and if parents could realize and act upon it they would do much to limit the progress of infectious diseases.

The common diseases are transmitted very largely by means of the discharges; scarlet fever, measles, and diphtheria, through the discharges from mouth and nose. These diseases are highly infectious in an early stage, when they seem to be nothing more than a cold in the head or throat. It has been established that the scaling period of scarlet fever and measles is relatively harmless, and it is impossible to demonstrate that the scales are capable of transmitting these diseases. This being understood, the importance of early isolation of these cases is at once apparent. The golden rule for every parent is, *In every case of apparent cold or sore throat, no matter how slight, keep the child out of school and away from other children until a physician has made an examination and certified that the condition is not infec-*



tious. This may seem a heroic procedure; but if every parent would practice it, these diseases would be reduced to a minimum in our schools. When one member of a family has an attack of supposed "cold," it is better to keep brothers and sisters out of school also, for the reason that those closely associated with an infectious case are often "carriers;" that is, they have the germs in their secretions, but have not yet succumbed to the disease, or may have it in a form so light as not to be recognizable.

It seems hard on mother to have two or more children around in her way because one of them has a "cold in the head," but that "cold in the head" may prove to be more serious, and some neighbor's child may die from infection taken from the little one. Now you would not want to go through life with such a load on your heart, I'm sure. How much better to follow the golden rule, and keep the children out until all danger is past! They would be kept out by the inspectors in cities having school inspection. Why not be your own inspector?

Now in order that *your* children may not be unduly exposed at school, owing to the ignorance or thoughtlessness of some other mother, it will be necessary for them to observe certain precautions; and if you have followed our suggestion



of setting a good example, the matter will be comparatively easy. Your child must avoid everything that might bring the secretions of others to his mouth or nose. There should be no trading of pencils, no borrowing of handkerchiefs, no putting of playthings, pen, or pencils to the mouth, no eating of food with hands unwashed, for door knobs and desks and other articles may be infected.

The child should be taught, above all, to shun public drinking cups and public towels. Let him have his own articles, and teach him that he is not under any circumstances to permit others to use them.

If we could only realize that it is not the chance passing near a person that transmits a disease, but the all too common *exchange of saliva*, we might learn

to be a little more cleanly and a little more discreet.

To sum up: In order to avoid the danger of transmitting disease to others, keep your child out of school as soon as there develops something that *may be* infectious, whether it be a sore throat, a cold in the head, a skin eruption, sore eyes, or what not. In order to prevent exposure of your children at school, teach them to be cleanly—to avoid drinking from a common cup, or wiping on a common towel, or eating with unwashed hands, or putting *anything* to the mouth except clean, wholesome food and drink. We make an exception: the toothbrush, with a proper dentifrice, carefully, regularly, and frequently used, is a sovereign preventive of infection.

THERE are two tonsils, one lying on either side at the back of the mouth cavity. A mass of tissue, similar in structure to

that of the tonsils, lies in the roof of the cavity, and connects the nasal cavity with the mouth passage. This is called adenoid tissue.

Like nearly all organs serving an important function, the tonsils are arranged in pairs, so in case one is disabled, the use of the other may be retained. This fact seems to prove that the tonsils, when healthy, are not superfluous organs, but contribute their part to the well-being of the body.

The structure of the tonsils indicates that they have power to destroy bacteria, the tissue, for the most part, being lymphatic tissue, which has always as one of its chief functions the de-

Relation of Tonsils and Adenoids to Health

H. W. Miller, M. D.

Superintendent Washington (D. C.) Sanitarium



struction of poisonous organisms. The tonsils, therefore, stand as two sentinels to guard the passageway to the stomach and intestines,

and also to the lungs. The period of their greatest activity is evidently during early childhood, as these organs, like the thymus gland found in the new-born babe, ordinarily waste away, and are found only in a rudimentary state in adult and later life. As the continuation of activity of the thymus gland seems to produce an abnormal condition during adult life, so does the presence of enlarged tonsils in the adult have a tendency toward constitutional disturbances.

The danger from diseased tonsils is twofold. One is their mechanical effect. They are enlarged, and so protrude above the throat passage, obstructing

the intake as well as the exit of air to and from the lungs. They affect markedly the quality of speech, and are the more subject to disease by reason of their size. Another danger arises from the fact that there are cavities in the surface of the tonsils which, as a result of repeated attacks of tonsillitis, become deep, ragged pockets. These pockets often become the receptacle of food, which decomposes and gives a fetid odor to the breath; and still again these crypts, or openings, on the tonsil become filled with an excretion of a caseous, or cheesy, character, which is often discharged in very foul-smelling lumps. While in this condition, the tonsil is, of course, a constant source of disease, and frequently gives rise to acute symptoms.

Acute attacks of tonsillitis are often very severe in children as well as in adults. The onset is characterized by a high temperature, often by chills, severe backache and headache, and a heavily furred tongue. There is also much soreness of the throat and the area below the ears, often associated with earache, and pain on swallowing.

The effect of diseased tonsils on health has now been recognized as being far more serious, far more critical, than was once supposed. Traceable to diseased tonsils are chronic headaches, and tubercular glands of the neck, with a resulting infection of the apex of the lung with pulmonary tuberculosis.

As a result of the germs being swallowed with the secretions of the mouth and with the food, which constantly come in contact with the putrid surfaces of these organs, other parts of the digestive tract, as the stomach, gall bladder, colon, appendix, etc., become infected.

The germs frequently enter the circulation, and cause an infection around the joints, known as rheumatism. They are also responsible for nervous disorders, as neuritis and sciatica, and for certain nervous conditions in children, as chorea, or St. Vitus's dance.

Very frequently the germs, gaining entrance into the circulation, start a focus of infection in other areas of the body aside from those mentioned; and from these areas the infection spreads.

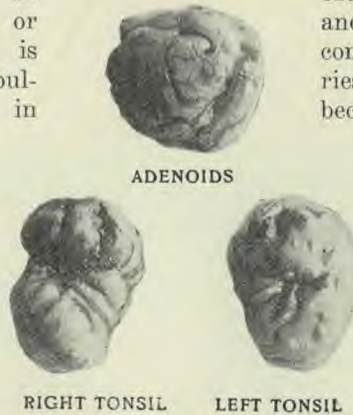
The valves of the heart are often the seat of infection, and from them the disease is communicated to the capillaries and small arteries, which become obstructed with infected emboli [little plugs]. This results in abscess formation.

In all systemic infection caused by a local infection, as that resulting from diseased tonsils, the first essential is to remove the focus of infection. This has been done in many hun-

dreds of cases, and the disease has disappeared as soon as the tonsils were removed.

Most extensive studies have been made recently on the relation of the tonsils to infectious diseases. In a report of one thousand cases in Johns Hopkins Hospital, where both tonsils were completely removed, marked beneficial results were obtained.

The chief point to be observed in every case is whether the tonsil is exercising a normal function, or whether the normal function has ceased, and the organ is diseased. If so, then it is a menace to health and a source of contamination to the body, and should be entirely removed. The partial removal of the tonsil, as was practiced many years ago, resulted in the formation of scar tissue



Diseased tonsils and adenoids removed from five-year-old boy. Three fourths actual size. The depressions, or crypts, were pockets which contained decaying and caseous material.

over the cut surface of the tonsil, thus throwing the pent-up excretion of the tonsil and the infected surface, with their toxins, directly into the circulation, and this became a greater menace to health than if the tonsils had never been touched.

So frequently do we find tonsils diseased and in need of complete removal, that every child should have his throat thoroughly examined not later than the second year. Tonsils may be removed at any age. The writer has removed the

tonsils from a patient sixty-seven years old, with marked beneficial results.

There is but one proper method of dealing with diseased tonsils, and that is to remove them completely. While this is not a serious operation at any time of life, it must be remembered that the results depend upon the thoroughness with which the work is done. It is an operation requiring great skill, for technically it is more difficult than many major operations.

Guard well the hygiene of the mouth.

RHEUMATISM IN CHILDREN

G. H. Heald, M. D.



ACTIVE children with good appetites, who complain of an occasional pain or who manifest a tendency to have repeated colds, sore throat, and the like, are not likely to get much sympathy from the old folks. "It is merely a temporary illness, which they will soon overcome; and perhaps, after all, the pain is largely imaginary." With some such thought, the parent is liable to neglect the indisposition of the child, not because of lack of interest, but because of inability to understand how such apparently trivial disorders can be serious.

But these symptoms may indicate the onset of rheumatism, which, though it produces no such startling changes in the child as does scarlet fever or measles, is, in a way, more to be dreaded, for the reason that, with rheumatism, irreparable damage is often done before any

one is aware that there is danger. Rheumatism in children is, in fact, a most serious disease, and lays the foundation for permanent invalidism, and perhaps paves the way for an early funeral. It is an infectious disease, caused by the activities of certain microorganisms, or germs, which, having gained an entrance into the body, attack certain tissues, such as the joints and the heart valves.

Rheumatism, which almost invariably makes its first appearance in early life, may recur from time to time during the whole of life. It differs from some other diseases in that one attack does not confer immunity, but increases the predisposition to disease.

A large proportion of the cases of organic heart disease have had their inception in an attack of acute rheumatism during childhood. In more than ninety per cent of the cases of rheumatic infec-

tion, the heart is involved. The danger of heart involvement is greater in children than in adults. The time to prevent heart crippling is during those initial attacks which may not be heralded by high fever, swollen joints, and the like; for during these childhood attacks the germs, avoiding tissues ordinarily affected in adults, which might send a call for immediate relief, may confine their work very largely to the heart.

But there are certain symptoms of rheumatism, even in these obscure cases, which the skilled person may detect. A frequent symptom is a tendency to sore throat, with recurring tonsillitis or colds. Whether or not defective tonsils permit the entrance of the germs which cause the attack,

one is safe in keeping close watch of the heart in every case of chronic sore throat with recurring tonsillitis or colds. That is, a physician should have the case in charge and make frequent heart examinations.

The so-called "growing pains" are almost surely rheumatic, being the result of infection. Normal growth is not manifested by pain. Such pains are usually worse after exercise and at night. More often than not the pain seems to be localized elsewhere than in the joints. There may be, for instance, pain in the tendon of the heel, or the back of the knee, or in the back (lumbago), or the neck (stiff neck). Nearly always there is a low fever, seldom exceeding 100° F., and dropping daily to normal. The onset of rheumatism in the child is insidious, and liable to be overlooked, even

by those who are skilled in diagnosis; for those who are familiar with acute rheumatism in adults, with its chill, high fever, and red, swollen, intensely painful joints, find it difficult, in the absence of these symptoms, to recognize the same condition in children.

Dr. John Adams Colliver, of Los Angeles, Cal., mentions an early symptom observed by him, which it is well for those in charge of children to keep in

mind. He notes crops of small pin-point eruptions affecting the palmar surface of the tips of the fingers and the lower surface of the toes. First there is an itching, then the pimples appear, being often perceptible to the touch before they are visible. The pimples form blisters, and finally there



PLAYING SCHOOL

is sealing of the skin, the entire change occupying from three days to a week.

At first the children subject to rheumatic attacks appear healthy and well nourished, but with the development of the disease they become pale and anemic. Owing possibly to the influence of the poisons generated in their bodies, the little victims are nervous and irritable, and are easily frightened. Chorea, or St. Vitus's dance, is believed by many to be rheumatic in nature.

The first effects of rheumatism on the heart are imperceptible to the keenest diagnostician. When the trouble has gone to the extent of producing heart murmurs, the mischief is done. For this reason one of the most important precautions in dealing with rheumatic conditions in the young, is to enforce sufficient rest in bed to protect the heart. I

will close with a quotation from Dr. Colliver:

"It is impossible to make an early diagnosis by signs of the heart alone. There are other infections which may produce a carditis and simulate the symptoms mentioned. It is impossible to diagnose in this stage by any one symptom or a single examination. The progressive character and 'course of events' must be considered. Even when well established, it is more often overlooked than wrongly diagnosed.

"Remember, rheumatism in children is the most insidious, most deceptive, most easily overlooked, most difficult to manage, and most disastrous to the heart.

"Also remember, the fatuous policy of 'watching, waiting, and hoping' in these cases may result in the sad cardiac state of absolute and permanent unpreparedness for future adult emergency action."¹

¹"Obscure Symptoms of Rheumatism in Children," by J. A. Colliver, M. D., in *California State Journal of Medicine*, January, 1917.

Home Health Training of the School Child

L. A. Hansen

THE proper training in health at home is not supplementary to that received in school—it is primary. It comprehends more and goes farther. It is more forceful in its application, and has the advantage of careful supervision. The influence of parents' example and practice makes it more emphatic, and it can be taught early and late.



Only a small part of the time at school is devoted to health instruction. Much less time is spent under the direct examination or supervision of the school nurse or the health inspector. The opportunity and responsibility of really seeing that the health instruction received at school is carried out, belong to the parents. Instruction in health is of value only to the extent

Much has been written regarding the duties of the teacher, the school medical inspector, and the school nurse,—probably not too much,—but more might be said to parents regarding their responsibility in preserving the health of the school child.

Of the one hundred and sixty-eight hours in a week, not more than forty, perhaps not more than thirty hours,—one fifth to one fourth of the week,—are spent in school. The remainder of the time—between three fourths and four fifths—the child is, or ought to be, under the control of the parents.

that it is put in practice. As the larger part of the child's life is spent at home, the home is largely the determining factor in the school child's health.

In some cities the school nurse goes to the homes and in many ways helps parents to provide better health conditions. The medical inspector also comes in touch with the home through advice given for the correction of certain defects, such as bad teeth, adenoids, diseased tonsils, defective eyesight. But after all is said and done, the real burden of looking after the child's health rests with the parents.

Granting that the school-teacher, school nurse, and school medical inspector are better prepared to give the theoretical side of health instruction, it is true that the home folks are better prepared to give the practical side. A coöperation on the part of parents that appropriates all that can be obtained of the theoretical side, both in drawing from the child what has been taught him at school and in personal study and investigation, will invariably result in the greatest good to all concerned.

The home program for the child should be planned with reference to the school life. Except for the recess and noon hour, the time at school is nearly all spent in study, in a sitting posture. The normal child requires considerable activity. So far as possible several hours of the child's time out of school should be given to outdoor activities demanding muscular rather than mental exercise.

There is not much question about a boy's getting sufficient physical development from the games which he and his companions will naturally provide for themselves. So far as mere bodily exercise goes, the boy can be trusted to follow his own instincts. But there are other considerations, and more important than mere muscular increase. The boy is more than a growing animal. He has in him the making of a man; and to grow

into the right kind of man, he must be provided with conditions that make for right character building. Moral fiber is not likely to grow without cultivation by older heads who have the direction of the boy in his activities.

Helpful and useful occupation may be provided, that will not only give physical exercise, but will be the means of developing character. Learning the value of time, training in manual efficiency, learning to stay by a job till it is finished, and to enjoy the results of one's own labors, are all good experiences for a boy.

The same may be said regarding the girl and her relation to useful household duties. Both the boy and the girl will make better school children for having learned the discipline of wholesome and properly directed home work.

Realizing better the value of time and knowing more of what can be accomplished by application and effort, they will take hold of class work with less dread. The more equal development of head and hand will facilitate mental accomplishment, and lessons will be mastered more readily.

Habits of personal cleanliness are essential to health. Children



who very early learn to like mud in the shape of pies and in their play, need later to learn that dirt has its proper place, and that there are many kinds of dirt. The hands should be frequently washed, to remove all impurities. Diseases of a serious nature are often trans-

mitted by way of the hand to the mouth.

The entire body should be carefully bathed as often as two or three times a week, to remove the waste matter constantly given off through the pores of the skin. The bedroom should be kept clean by thorough ventilation. Foul air is dirty air, and cleanly people should not take it into their lungs. The bed should be aired after being slept in.

The removal of body wastes should be carefully watched. Make plain the fact that the retention of poisonous matter within the body is injurious. Begin early to insist on regularity in attending to the bowels. The choice of the hour for this

is important. Do not have a child go to the toilet at a time when he knows he has but a minute or two before he must start for school. Choose a time of day when there is no hurry, and when mental quiet and peace of mind may be had. A proper bowel habit may be established if care is taken.

The appearance of constipation in a child should be given serious attention. There may be a functional disturbance that requires medical aid. All the dietetic and hygienic conditions which surround the child should be studied, in order to avoid constipation.

Water is a cleanser for the inside of the body as well as the outside. Drinking freely between meals will aid in the removal of wastes by the kidneys. All beverages are valuable for quenching thirst only because of the water they contain. The addition of fruit juices adds flavor and certain valuable food ele-

ments. The addition of tea or coffee adds flavor and certain harmful poisons.

The teeth should be carefully cleaned twice a day, after breakfast and before going to bed. Use a good brush, with bristles not too stiff or too close. For a dentifrice use pure Castile soap, and occasionally use powdered chalk or mag-

nesia. The back of the mouth, the gums, and the roof of the mouth should also be brushed. Crackers and other solid food that encourages chewing, are advisable, but to use the teeth for cracking nuts or to break hard substances is decidedly not advisable.

Children who have defective eyesight at school will have

the same defect of eyesight at home, and the same precautions are needed at home as at school to provide proper lighting and to avoid eyestrain.

Clothing is a thing that must be supplied altogether by the home. It should protect the body from heat, cold, rain, and snow. It should interfere as little as possible with the natural movements of the body, and should never be allowed to interfere with free, full breathing or with the circulation of the blood.

Ten hours of sleep out of twenty-four is the proper allowance for children under twelve years of age; over twelve, nine to nine and a half. That means a good sleep. The evening meal has a good deal to do with the kind of sleep that follows. Make it light, and long enough before bedtime not to interfere with the night's rest. True, little pigs go to sleep on a full stomach, but they are little pigs. Your boys and girls are not.



HIS FIRST TEACHER

THE CARE OF CHILDREN'S EYES

At Home and in School

R. A. Crawford, M. D.

Superintendent Chamberlain (S. Dak.) Sanitarium

THERE is no part of the wonderful mechanism called the human body more wonderful than the eye. It is more delicate than the most sensitive instrument of which science can boast. Although it is composed of millions of living cells, they are all so associated as to make its operation simple and yet most effective.

It is true that the eyes are not so essential to life as some other organs of the body, but it is hard to imagine anything more useful. We are dependent upon our eyes for a great deal more than we realize. Like the other blessings of life, we accept our vision as a matter of course, little thinking how much it means to us.

Did you ever consider what a large part of our knowledge and enjoyment comes to us through the eye? In infancy we learn to know things first by seeing them. Imitation of what we see plays a large part in the acquirement of knowledge and skill in childhood. Through the eye the child comes to know the world and the things therein; and in later life a large share of our knowledge comes to us through reading the printed page. It is through the eye that we are able to comprehend the wonders of God's handiwork, and all else that is beautiful.

But in spite of its delicacy, its importance and usefulness, and the enjoyment that it gives us, our sight is often greatly misused. In childhood, especially, great damage is often done to the eyes, and it is surprising how little attention has



been given to this by educators and the general public, and even by physicians, until recent years. It is in childhood that the delicate mechanism of the eye is especially liable to be injured by injudicious use, and it is in childhood and infancy that deformities of the eyes can be best corrected, and perhaps even cured. It is at this period of life, also, that the acute contagious diseases are most liable to occur, which so often leave permanent injury to the

eyes. It is therefore very essential that parents and teachers be thoroughly aware of the dangers at this period of life, and that they use every precaution against injury to the eyes.

In order to have good, healthy eyes, it is of first importance that the child be healthy otherwise. In fact, the cause of sore eyes in children is often to be found in the child's general condition. Malnutrition, scurvy, serofula, rickets, eczema, and many other general diseases may be the cause of disorders of the eyes. Thorough cleanliness, careful sanitation, plenty of fresh air, and simple, wholesome food are as essential in preventing diseases of the eyes as of other parts of the body.

We should begin to care for the child's eyes at its birth. So large a percentage of blindness is due to infections in the early days of life, that the infant's eyes are now given the most careful attention by physicians during this period. The infant's eyes should be cleaned each morning with a solution of boric acid

applied with a medicine dropper. A mild catarrhal inflammation is likely to occur later in the child's life, and should be taken care of by frequent instillation of a boric-acid solution.

It should be remembered that the great new world in which the infant finds itself, no doubt seems very full of light. Care should be used to protect the delicate eyes from bright lights, and when the infant is sleeping the room should always be darkened.

During the contagious fevers, such as measles, scarlet fever, or chicken pox, the eyes will need special attention. If an eruption occurs along the margin of the lids, the skin of the lids should be kept soft with olive oil. Congestion of the eyes should be treated by washing with a solution of boric acid.

In measles, especially during the first few days, the eyes are inflamed and congested. During this period the room should be kept darkened, and the child should not be allowed to read or to do other close work with the eyes, as great harm is often done in this way.

When the child starts to school and learns to read, attention to the eyes is doubly important. The importance of light in the schoolroom has been properly appreciated only recently. Even yet school buildings are planned and erected without proper regard for this matter. School directors and the architects of school buildings should thoroughly understand how important this is in keeping children's eyes in a strong, healthy condition.

The rooms should be so planned that the light comes from the back and the left side. Light coming from over the left shoulder is the most desirable for children at school. Often the lighting is inadequate, and children are forced to study in some parts of a room where their books are only dimly lighted.

Teachers should realize the importance of having the light from the upper parts of windows. If the light is not shut out by cur-



UPPER PICTURE — A VIEW
LOWER PICTURE — AXEN

*"It is through the
to comprehend the
work, and all else th*



BERN, SWITZERLAND
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*that we are able
 of God's handi-
 beautiful."*

tains, a great deal more light comes through the upper than through the lower portion of windows. Children are also often asked to read from a blackboard on which light is shining at such an angle as to make eye-strain inevitable.

Another precaution of much importance is to have adjustable seats and desks, so that each child can be properly fitted. Failure to make allowance for the needs of the different pupils is a frequent cause of eye-strain, of round shoulders, of spinal curvature, and other deformities.

Examinations of the children's eyes should be made occasionally by some capable physician, and the teacher should send all cases of inflammation of the eyes to the school physician or health officer for attention. Not only will this be the means of preventing injury to many inflamed eyes, but of detecting cases of measles and perhaps other contagious diseases before the appearance of the eruption.

The child should be taught not to read in a lying posture or with a dim light. He should not sit facing a bright light, and should be cautioned against reading or doing other close work in the twilight. It is well to encourage him to rest his eyes occasionally by looking in the distance. The green of nature is restful to the eyes.

It is of great importance, both at home and in school, that deformities of the eyes be early detected. Thus strabismus, or cross-eye, should receive proper attention in early childhood, as it is often possible at this time to cure the condition without operative procedure. Later, even though operative means are resorted to, the vision in one of the eyes is apt to be impaired to such a degree as to make the eye permanently useless.

Nearsightedness should likewise be watched for by both parents and teachers, and should be remedied by properly fitted glasses.

Tired eyes are often benefited by washing with a very weak solution of table salt. Bathing for ten minutes in hot boric-acid solution is also very helpful.

Another thing that should be mentioned here is the matter of foreign bodies in the eye. When a child gets dust or dirt in his eye, the tendency is for him to rub the eye, and thus unconsciously he imbeds the foreign matter in the conjunctiva or cornea. A great deal of harm may be produced in this way.

By rolling the eyelid back over a pencil the particle of dirt may often be seen, and can be gently removed by touching with a fold of soft, clean handkerchief. If it cannot be seen, gently washing with warm boric-acid solution usually removes it. If simple remedies fail, the child should be taken at once to a physician.

OUR WORK AND WORKERS

HOSPITAL WORK AMONG THE NATIVES OF NYASALAND

Jessie Rogers

LIKE all native tribes, the people of Nyasaland are terribly afflicted with sores, and the treatment of these makes up at least fifty per cent of all help given in the line of medical attention.

These sores are caused mainly by lack of cleanliness, the wearing of unwashed woolen garments for years, and the ravages of a very tiny insect known locally as the jigger. This attacks both white and black, burrowing beneath the skin, and depositing eggs within a sack, which enlarges, festers, and breaks out to the surface in a very painful and deep wound. The white man promptly digs this beast out on the first intimation of its presence. The native too often leaves it to work out its own exit. Then the hole thus made fills up with all sorts of germs, and very shortly the sufferer is on his way to the mission house to seek relief from a

wound that may have, by that time, involved several toes. There are villages where many of the people have had all their toes eaten off by this little pest.

Smallpox.—Periodically, this terrible scourge sweeps over the land, leaving wide burial fields in its wake, for there is practically no understanding of the need of segregation in contagious diseases. When such cases appear within the confines of a mission station, there is a wonderful opportunity for demon-

strating the mode of treatment, and gradually a better state of things is coming about. The government drastically burns down a village wherein the disease appears.

Stomach Disorders.—These, we feel sure,

come from the poor way of cooking, which is universal. The "porridge" is made by stirring the meal into boiling water until it is stiff enough to mold into balls. There is positively no cook-



A TRAINING SCHOOL IN NYASALAND

ing of this porridge, and that it is lack of proper cooking which has caused the digestive troubles, has been fully demonstrated by the fact that these troubles are so comparatively rare on a mission station, where the cooking is properly looked after.

Fever.—Some people think this comes only to the white man, but we who live in the land know better. One of the things especially prepared for, in the fine little hospital just established at Malamulo, is the treatment of fever. The same treatment is necessary for both white and black.

Wounds.—A surprising number of very serious wounds come into a native hospital in the course of a year. They are made chiefly by misguided hoes, axes, spears, and general awkwardness or inadvertency. These the mission nurse skilfully bathes, disinfects, and bandages, and the gratitude of the patient is usually a sufficient reward.

Burns.—With singular regularity children fall into the fire, and when far away from the mission hospital there is sure to be a new-made grave very shortly, for usually the burn covers so much of the body surface that recovery is impossible with the utter lack of medical knowledge and remedies in the villages. But these burns are treated successfully in the mission hospitals, to the saving of many a little life.

Besides the burning of little children, there is a surprising number of grown folk who regularly put their feet into the fire, as they lie about it at night, thus causing a great number of very deep burns. No matter how indifferent an old sufferer may have been to the missionary's pleadings in behalf of the

gospel, a downright deep wound sends him scuttling to the missionary nurse with commendable haste. She administers the gospel right along with the boracic acid, to the unfailing help of both soul and sore.

Childbirth.—The mission nurse must win her way indeed if she hopes to alleviate the lot of the mother; for perhaps in no other illness or affliction in the whole list is

the native so unwilling to be helped. This is because of customs so wrought about with superstitions that no European mind can grasp them, but they mightily bind the people, especially in the birth of their children. But by dint of long and kindly service the Christian nurse can succeed even in this, to the everlasting love and gratitude of the mother.

Time was when a corner of an old coffee storehouse was used as the only available place for attention to be given to the throngs of the sick and suffering who came "over the hills from far away" to be relieved of their burdens of misery. Never can we forget that row of cheap white enamel basins, each presided over by a kindly native, who valiantly tried to carry out the instructions which had been given by the one white missionary who could find time for this work.

Now, on the brow of a beautiful hill up the road stands a neat, well-equipped little hospital, in which good baths, neat beds, cupboards of healing medicines, and rolls of aseptic bandages, are all at hand, and in one single month as many as seven hundred of these people have found relief in this blessed little building, under the kindly ministrations of the missionary nurse.



AN OUTSCHOOL IN NYASALAND

EDITORIAL

School Hygiene



THE elimination of illness resulting from unhygienic conditions in the schoolroom, presents an ever-varying problem. Much has been done by school boards in constructing school buildings that are models of sanitation. Old school buildings also have been altered to conform to newer ideas. Drinking fountains have replaced the common drinking cup. Light is admitted from the side or rear so as to fall properly upon the desk, and thus prevent the glare caused by the light shining on the blackboards. A system of heating, which provides for the equal distribution of heat, and for adequate ventilation without exposing the pupils seated near the windows, is found today in the modern school building. Seats are adjusted with great care to meet the requirements of the student, instead of the student's being molded and fashioned by the seat. In rural districts the concrete vault is supplanting the earth vault. In fact, nearly everything that school boards can do has been done earnestly and seriously to improve conditions in the common schoolroom.

CO-OPERATION OF PARENTS

The great problem today in further safeguarding the youth through their contact in school with sickness and disease, is the working out of a plan for securing the full coöperation of parents. The lack of such coöperation frequently means the spoiling of the school attendance during the greater portion of the year. To secure such coöperation as is essential to limit the spread of contagion from the home to the school, which may become so great that health officers must insist on closing the public school, requires a conscientious regard by parents for the health of uninfected children. It also requires that those representing uninfected homes take a very decided stand that all infectious diseases be immediately reported by parents, and that quarantine regulations be established immediately. Parents and children frequently undertake to cover up the fact of the existence of an infectious disease, simply because of the inconvenience of having their home placed under quarantine: thus an entire community is exposed.

Some children have a very light attack of measles, scarlet fever, and diphtheria; and nearly all children have a light attack of chicken pox, as well as of other infectious diseases common to children; so if parents are at all inclined to be indulgent, when these children demand their freedom they are allowed to run at large. But some children are not so resistant to disease organisms as is the child with the ambulatory type of disease, and when they come down with these serious infections, not a few succumb.

Not until more authority is vested in the school-teacher to dismiss from school any student who appears ill, and to require a satisfactory certificate from a physician before the pupil is permitted to reënter school, and until

parents sense their responsibility as citizens to protect the rights of other parents to the exemption of their children from contagious diseases, will one of the greatest problems of school sanitation be solved.

If near the school premises there was a wild animal which occasionally came to the grounds and carried off a boy or a girl, the community would be thoroughly aroused to pursue the dangerous beast, and would not be content until such a menace to the safety of the children was removed from the neighborhood. It is just as essential to give hearty coöperation and support to those agencies which have as their object the suppression of infection, be it the loyal health officer, the visiting nurse, or the careful and observing teacher.

Children are often prevented from making their grades, and suffer much inconvenience during school life, by lack of attention to defects of the eyes and ears, to catarrh, adenoids, or other chronic disorders. No sick child should be sent to school. Whenever a child is not doing well in school,—seems especially dull, lacks energy, is not playful,—it will be found, in nine cases out of ten, that that child is in need of attention physically. A healthy pupil, housed in a modern schoolroom, has every chance of success.

Another very great error, one which is more prevalent in country schools than in town, where children may return home for the noon meal—is the eating of cold lunches at school. Children usually have but a small lunch, which leaves them with a voracious appetite for the night meal, when they eat heartily just before retiring. If nothing more than a hot drink or a bowl of hot soup could be provided for children who are compelled to eat a lunch at school, it would prove a great aid to their digestion. By all means should the evening meal be limited in quantity, the lightest of the day.

Particular attention should be given to the proper clothing of school children. Neck and ankles are frequently exposed, whereas these parts, where the large blood vessels run near the surface, should be very carefully protected. The feet should be kept dry and warm, and the soles of the shoes should be heavy enough to prevent chilling when the feet come in contact with the frozen soil and cold floors. It must be remembered that the soles of the feet are very sensitive to changes in temperature.

Every child is entitled not only to the help that a teacher can render in offering suggestions, but to the hearty coöperation and support of his parents in endeavoring to secure the first of all essentials,—the prevention of disease.

Harry W. Miller

AS WE SEE IT

THE IMPORTANCE OF MILK AS A HUMAN FOOD

PROF. LEO F. RETTGER, of the Sheffield Scientific School, Yale University, has recently published an article on "Milk in Its Relation to Health" (*Scientific Monthly*, July, 1917), in which he attempts to impress upon readers the importance, not only for children, but for persons of all ages, of using milk daily in the diet. He says:

"If the true value of milk as a stimulator of growth and vigor throughout the developmental period were known and fully appreciated, the number of undeveloped and anemic children would be greatly reduced. . . . When an age is attained at which other foods are apparently borne as well as milk, little effort is made to continue milk feeding, especially if there is any indifference or reluctance on the part of the child."

It is now known, especially as the result of the experimental feeding of animals, that milk contains minute quantities of two very important "food accessories," or "vitamines," which affect nutrition in some unexplained way, promoting growth, and preventing certain nutritional diseases.

It is also known that these accessories will withstand the heat of Pasteurization, and even of boiling for a short period, say ten to fifteen minutes. According to Rettger,

"Considerable effort has been made in recent years to overcome the prejudice existing in the minds of most Americans against Pasteurized or boiled milk."

In this country dietitians have usually favored Pasteurization and have discounted boiling. But careful observations made in England indicate that the boiling of milk if not too prolonged, does not materially affect its nutritive properties.

It is fortunate that some foolish laws are being so modified as to permit the sale of skimmed milk. The laws forbidding the sale of skimmed milk kept from

the poor a most excellent food. Skimmed milk is rich in sugar, mineral salts, albumin, and casein, and with fat from some other source added, is practically a complete food. Especially in this time of soaring prices is it important to permit the free use of so valuable a food. Of course it should be clean, and be sold at a low price, as skimmed milk.

G. H. H.

LOW PROTEIN REQUIREMENT IN HEALTH

THE *Journal A. M. A.*, June 16, 1917, gives an abstract of a paper by Mikkel Hindhede, the Danish physiologist, in which he maintains that the human organism needs much less protein than is generally supposed. Giving a figure for protein requirement distinctly lower even than Chittenden, he says there is no need to pay attention to the albumin in the diet, as this will take care of itself. It is important, he says, to pay attention to the articles which we know cure beriberi and scurvy,—bran, potatoes, carrots, pot herbs, soups, raw fruit, and raw milk. While he believes that a moderate amount of meat may do no harm, he insists that his years of home and laboratory tests have amply confirmed the fact that meat is unnecessary. He says:

"If any one had told me twenty years ago, or even six years ago, that one could live year after year in the best of well-being on potatoes, margarin, and water, I would scarcely have believed him. I would have regarded forty to fifty grams of albumin as the minimum, instead of the twenty grams which tests on three adults proved to be the minimum. One of the men had considerable exercise, one a moderate amount, and one did almost exclusively brain work."

Hindhede has been experimenting along this line for twenty-one years, himself and family living on not over fifty grams of digestible protein, and as low as twenty grams. His children after ten

years of the diet measured and weighed up to others two years older. "Their endurance was almost proverbial."

It has seemed probable to the writer of this article that one reason why more protein seems at times to be needed is because incomplete proteins are used. The proteins of rice and potato are more complete than the proteins in some of the grains. This may account for the fact that large masses of humanity have lived very largely on these foods, with the addition of little or no animal matter.

G. H. H.

THE RAW WHITE-OF-EGG DIETARY FALLACY

For some reason there is a very prevalent belief that raw white of egg is easily and rapidly digested, and standard books on dietetics for the sick highly recommend the use of this article of food. Sometimes when patients can take hardly anything, they are given raw white of egg. For a time a favorite ration for tuberculosis patients was raw egg beaten up in milk. Babies who could not take milk in any form were given "egg water" as a last resort—raw white of egg beaten up or shaken up in water, and sometimes strained.

Perhaps it is to Beaumont that we owe this very general confidence in uncooked egg white as a nutrient for the sick. His observations on the stomach of Alexis St. Martin showed that raw egg white leaves the stomach more rapidly than cooked egg or any other protein, and perhaps more rapidly than any other food substance. In those days it was supposed that rapidity in leaving the stomach was equivalent to rapidity of digestion. So doctors and laymen have paid homage to raw egg white as a food *par excellence* for people with feeble digestion. More recent investigations, however, have not borne out the early dictum. Observation has repeatedly shown that raw white of egg in any appreciable quantity is badly borne by patients. Experiments on dogs confirm

these observations. Raw egg white almost universally causes a disturbance of digestion. In dogs it often causes vomiting and diarrhea, and in man it usually causes diarrhea or loose stools.

But this is not all. It has been shown that raw egg white does not stimulate the production of gastric juice, and, moreover, gastric juice has little if any effect upon it; and the effect of pepsin on it is negligible. It would almost seem that the hasty onward movement from the stomach is somewhat of a cathartic action—an action to get rid of the substance as soon as possible. In the intestine trypsin does not act upon it as upon other proteins, and it hinders the action of trypsin on other proteins which may be present.

Raw white of egg would seem to be a source of disturbance throughout the alimentary tract. It can be recovered unchanged in the feces, and when it is present, the feces are liable to have a particularly offensive odor.

In the June, 1917, *American Journal of the Medical Sciences* is an article by W. G. Bateman, Ph. D., giving a fairly full discussion of the investigations into the digestibility of egg white, with a bibliography.

G. H. H.

WHOLESOME BISCUIT FROM ALFALFA HAY

ELLWOOD HENDRICK, in the *Scientific American*, May 5, 1917, gives the following somewhat humorous account of Prof. Elizabeth C. Sprague's first experiment with alfalfa-flour biscuits.

"Professor Sprague . . . took ten grams of her alfalfa flour and blended it with one hundred grams of white or patent wheat flour and proceeded to make a batch of biscuits. They had the traditional quality of bridal biscuits of the humorous papers, being of a dark brownish-green color, and the taste of all the back-yard weeds that ever grew—not forgetting skunk cabbage. They were wholesome enough to eat, provided always anybody could eat them, but it seemed unlikely that even an 'acquired' sense of taste and smell would call for a second helping."

But a chemical examination showed that much-needed food values were pres-

ent, and so Professor Sprague continued her experiment. Alfalfa flour contains a high proportion of protein, and of alkaline ash, with lime predominant,—qualities which make it of very great value as a human food provided it can be made palatable.

Dr. Sprague finally succeeded in removing by chemical process the objectionable flavor, and the result was a dark brownish-gray powder, which, added to whole-wheat flour in the proportion of 1 to 10, increases the protein 20 per cent. If added to cornmeal in the same proportion, the protein is increased 35 per cent, and the ash 50 per cent. With white flour there is a slightly unpleasant taste, but with Graham or whole-wheat flour this flavor is masked, provided not more than 10 per cent of alfalfa flour is used.

G. H. H.

COMPARISON OF MORTALITY IN CITY AND COUNTRY

In the July *Scientific Monthly* Dr. Warren S. Thompson's article, "Race Suicide in the United States," makes some comparisons of rural and urban conditions which might well form a postscript to the article "Antecedents of Disease in Country and City," which appeared in the August *LIFE AND HEALTH*. For instance, he says:

"The outdoor life of country people is one of the important factors in keeping the rural death rate down. Country children spend most of their waking time, outside of school hours, out in the open. In going to and from school, at their chores, and during their vacations, country children get an abundance of good fresh air. They do not know what it is to breathe the dust- and germ-laden air which the city child must always breathe. The men spend even more of their time out in the open than the children. All their work takes them out into the sunshine and fresh air. They never feel the confinement of factories and stores, nor the blight of occupational diseases. . . . The women, of course, do not live in the open as the children and men. But they get much out-of-door life during the warmer part of the year. They have their gardens to care for, the chickens to raise, and many other light chores which take them out of doors. Besides, if the country woman gets anywhere, she does not go in a crowded street car. She is out in the open air in a buggy or an automobile. There can be no

doubt that the way of the country woman is more healthful.

"There is room for much criticism of the country home because of its poor ventilation, lack of adequate heating, and methods of sewage disposal. In spite of these deficiencies, however, there are very few country homes as unhealthful as the great number of tenement homes in the cities. The crowding of people together in small, poorly ventilated and poorly lighted apartments, which is common among the lower classes of people in the larger cities, has almost no counterpart in the country. In hot weather when the city tenement dwellers suffer most from crowding and unsanitary living conditions, country people can get out of doors, where there is always an abundance of fresh air and plenty of room for recreation. . . .

"Another reason for the lower death rate in the rural districts is that the country people are closer to the source of food, and therefore have purer food than city people."

Notwithstanding the careful sanitary supervision of cities and the elaborate provision made to guard the health of the people, the rural death rate is lower than the city death rate. Country life, with all its disadvantages, has some advantages which more than counterbalance the efficient work of the city health departments.

G. H. H.

HEALTH IS ESSENTIAL TO BUSINESS EFFICIENCY

THE important bearing of health on success in business is forcefully brought out in a recent book on salesmanship,¹ in which one entire chapter is devoted to health. According to Professor Brisco,

"A salesperson should have a clear brain for every hour of the working day in order to present selling points in the most convincing manner. Mind efficiency cannot be obtained without a sound body for coöperation with the mind. Vigor of body and mind is a fundamental requirement of every salesperson."

This health chapter, after discussing the effect of good and bad health on the efficiency of individual salesmen and of selling organizations, gives instruction regarding foods and their selection, the relation of water and air to health, the care of the teeth, etc.

The important bearing of good health

¹ "Fundamentals of Salesmanship," by Norris A. Brisco, M. A., Ph. D. \$1.50 net. D. Appleton & Co., New York.

on business efficiency is further shown in the chapter on personal appearance. One quotation is sufficient:

"An absolute requisite for both health and appearance is exercise. Salespersons, to be efficient, must have their nerves and muscles in good working order."

By furnishing a carefully prepared series of physical culture exercises for the development of personal efficiency, Professor Brisco has given evidence of the high estimate he places on physical well-being as part of a program of general efficiency. That he realizes that memory, which is so essential to the salesman, is dependent on health, the following quotation bears evidence:

"A good memory is a necessary attribute in a salesperson, and is absolutely necessary for efficient salesmanship. . . . Whatever quality of retentiveness is given a salesperson by birth is diminished by poor health, and tends to reach its upper limit of effectiveness in good health. Salespersons know how much better they can remember in health than in sickness."

The importance of health to the salesman is further emphasized in the chapter on "Habit," which gives instruction regarding proper habits of living and eating. Following is a sample:

"Health is largely dependent upon proper habits of living. Regular eating, proper mastication of food, cleanliness, regular hours of rest, and wholesome recreation are the result of habits. . . . All bad habits of eating lead eventually to ill health, while many become accustomed to eating sweets, cakes, and pastry instead of good, wholesome, and properly cooked food. All bad habits of eating lead eventually to ill health, low vitality, and inefficiency."

The author pays his respects to the liquor habit, the tea and coffee habits, the tobacco habit, and the gum-chewing habit, all of which he finds to be detrimental to health and thus to the best success in salesmanship.

The chapter on "Fatigue," showing other ways in which ill health breaks down the efficiency of the salesman, considers such topics as "Importance of

Food and Good Habits," "The Effect of Sleep," "Overfatigue and Sleep," "How Much Sleep Is Necessary?" "Need of Relaxation in Efficient Salesmanship."

And finally, in the chapter on "Welfare Work," are considered such practical topics as "Treatment of Defects in Health," "Proper Habits of Living," "Medical Department and Selling Efficiency," "Provision for the Care of the Sick," "Proper Nutrition," "Proper Lunches," "Pure Drinking Water," "Sanitary Devices," "Athletics," "Recreation."

This brief summary of the health instruction in this book shows how a student of business efficiency looks upon good health as a prerequisite to efficiency. It is evident that good health has a money value, or in other words, that "health is wealth." G. H. H.

CHRONIC ITCHING CURED BY HYDROTHERAPY

A HOLLAND medical journal tells of a patient who had suffered for years from pruritus (a constant itching of the skin), which kept him awake nights, and for which he found no relief. As abstracted in the *Journal A. M. A.*, June 9, 1917:

"No benefit was derived from the whole array of dermatologic and other measures until, as a last resort, the man was told to sponge his whole body with cold water every morning on rising; then, without waiting to dry himself, to get back into bed and stay there until thoroughly warm. In a week of this simple hydrotherapy the man was cured. The pruritus that had tormented him for years, subsided completely, and there has been no recurrence during the six months to date."

It has been supposed that this striking relief was due to the contraction followed by the dilatation of the blood vessels of the skin, caused by the cold bath and the after-warming. The method is worth trying in appropriate cases. G. H. H.

QUESTIONS AND ANSWERS

Conducted by J. W. Hopkins, M. D., Washington (D. C.) Sanitarium

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If a personal reply is desired, inclose a two-cent stamp.

If you are not already a subscriber, send also the subscription price with your question.

Replies not considered of general interest are not published; so if your query is not accompanied by return postage for a personal answer, it may receive no attention whatever.

Remember that it is not the purpose of this service to attempt to treat serious diseases by mail. Those who are sick need the personal examination and attention of a physician.

State your questions as briefly as possible, consistent with clearness, and on a sheet separate from all business matters. Otherwise they may be overlooked.

For prompt attention, questions should be addressed to J. W. Hopkins, M. D., Takoma Park, D. C.

Bow Legs

"Please give treatment for bow legs in a child of three years."

You should put your child under the care of a specialist in orthopedic surgery. Bow legs are sometimes treated by the application of splints or casts, and sometimes by a surgical operation. The physician who sees your child will be able to decide which is the better method.

Baking Powder and Buttermilk

"What do you think of the use of baking powder and buttermilk?"

It seems to me it would be better to use soda and some sort of acid to neutralize it. You cannot tell just exactly how much acid there is in the buttermilk you use, and so you do not know whether you have neutralized all the baking powder. Unneutralized soda destroys the vitamins in the food.

Superfluous Hair

"There is a disfiguring patch of superfluous hair on my face. Do you consider electricity a safe and sure remedy? Does it remove the hair permanently? Are there any harmful after-effects?"

I consider electricity the only safe and sure method for removing superfluous hair from the face. It should be applied by a person skilled in its use, or it may leave a scar. Other methods do not permanently remove the hair, and are more apt to produce disfigurement.

Painful Neck and Spine

"Give the treatment for a nervous condition, with painful neck and lower end of spine, following an operation for goiter."

For this soreness and pain you will find fomentations to the spine very valuable. They should be applied daily, or twice a day, and followed once a day by an alcohol rub or a sponge bath, and massage. A vegetarian diet, with no tea, coffee, condiments, or stimulants, is necessary, as a flesh diet or a mixed diet stimulates and irritates the nervous system. Get much sleep, fresh air, and moderate exercise.

The goiter operation has no more direct effect on the spine than on the rest of the body, and that not more than most other operations

have. The condition preceding the operation, together with the strain of the operation, has undoubtedly weakened the nervous system and produced the soreness and pain. You will get best results by building up your general health and by giving a little attention every day to the local trouble in the spine.

Sweating Feet

"Give the treatment for sweating feet."

For sweating feet you should use an alternate hot and cold foot bath, twice a day. Get an ounce of formaldehyde solution, and put ten to twenty drops in each foot bath. This will help a great deal. You should change your socks every day. It would also be well to change your shoes daily, but I suppose, as you are canvassing, it would be impossible for you to do this.

Agar; Coffee Habit

"Is agar as ordinarily purchased in the drug store, fit to use? Is will-power the only way to overcome the coffee habit?"

Agar as purchased at the drug store, coming in small, loose bundles, should be thoroughly washed, cut into small lengths, or pieces, and dried before being used. The long strands are inconvenient to eat, and agar in this form does not leave the stomach as quickly as when cut into small pieces. Dried agar can be moistened, and flavored with lemon juice or a little salt. You can get agar in a granulated form from almost any drug store. It is put up by Parke, Davis & Co., of Detroit, Mich.

In regard to the coffee habit, you will find that a consecrated will-power will be of great help in overcoming the disease. A moderate sweat every day or every other day will help to eliminate poison from the system. The treatment of other chronic conditions, as constipation, indigestion, poor circulation, a weak heart, or any other disorder which calls for a stimulant, is also necessary. A meat-free diet, with the use of plenty of fruit, will make it easier to overcome the habit. The person who is a slave to coffee, needs more rest than the ordinary individual, as his nervous system is overstimulated. Good cereal coffee is an excellent substitute for coffee. A few weeks' treatment with hydrotherapy and massage will be effective in helping the patient to overcome the coffee habit.

Cane Sugar and Alcohol

"Does cane sugar produce alcohol in the stomach by fermentation?"

The excessive use of cane sugar certainly tends to make a person bilious. It makes the liver torpid, and causes catarrh of the stomach and bowels. An excessive amount of sugar would hardly cause sufficient fermentation to produce alcohol; but it is barely possible that it would, especially if the person is in a diseased condition. It would seem that two or three teaspoonfuls of sugar a day would be sufficient for the average person, although there are some who could use more, and others perhaps who could not use that much.

Use of Plaster of Paris; Adulteration of Flour

"Give the proper and improper uses of plaster of Paris. What can you say regarding the adulteration of flour?"

Plaster of Paris is chemically known as calcium sulphate. This, in the form of gypsum, is used for a filler in paper, as a pigment in paint, and as a constituent in fertilizers. When it is refined and made into plaster of Paris, it is used in stucco work, in cementing glass to metals, in the finishing coats of plastered walls, and in surgery in making casts for the purpose of immobilizing any part of the body. It has been used to adulterate food, but I do not know that it has been used in making candy. It is harmful in food, of course, and it does not furnish any energy. Flour is adulterated with alum, and often with copper sulphate. It is a good idea to use cornmeal as an addition to the diet list. In making wheat bread, about ten or fifteen per cent of cornmeal may be used.

Neurasthenia

"Give treatment for general neurasthenia."

The treatment prescribed by your physician is that used by a great many practitioners. It is probable that you also have neuritis. This is caused by severe nervous shock, but is more likely to be due to exposure of some sort, or to disturbing conditions of the stomach and intestines. I suppose your physician has ascertained whether there is any disturbance of the heart that causes pain in your left arm, and whether you have a normal blood pressure.

Some of the remedies which you are using are quite efficient in these conditions, but I think these should be accompanied by some hygienic procedures, especially by correction of the diet. Tea and coffee, and flesh foods of all sorts, should be discarded. Plenty of water should be taken between meals. We believe Eussell's Emulsion to be of no more value than the proper amounts of good cream, butter, and well-masticated nuts.

You are employing a good remedy for your bowels, but it is often necessary to reinforce colic by the use of a moderate dose of Epsom salts or cascara every morning. You should also increase elimination by stimulating the skin. This may be done by taking a moderate sweat bath two or three times a week, followed by a spray or a sponge bath. The fomentations are excellent, and should be applied not only to the painful parts, but also to the abdomen and liver, so that the elimination may be increased.

Treatment for Bedsores

"Give the treatment for bedsores."

For bedsores give very short alternate hot and cold applications, followed by a sponge bath of pure grain alcohol. The parts must be kept clean from the secretions, and the patient must not be allowed to lie very long in one position. Zinc stearate powder is excellent for the treatment of bedsores, and should be applied after the alcohol rub. Protect the parts from pressure by an air cushion or by rings made of absorbent cotton.

Pregnancy; Rash Around Waist; Feeding the Baby

"How should a woman of thirty-four care for herself during her first pregnancy? Please give the treatment for a rash around the waist in warm weather. Should babies less than a year old be awakened at night to be fed? How often should healthy babies be fed?"

A pregnant woman at the age of thirty-four, who has never borne children, should have an examination by a competent physician, and should follow his instruction to the letter. The urine should be examined every two or three weeks. She may very safely use fomentations to the liver and abdomen, and warm or neutral baths, and follow these treatments with coco-butter rubs to the abdomen and limbs. The bowels should be kept active by means of a laxative diet, and by the use of a good grade of mineral oil, if necessary. It is well to take a warm enema once or twice a week. The diet which you mentioned is just right, and the surroundings seem to be what are needed for her welfare.

In regard to the rash on the man's waist, it is probably due to the use of some food which does not agree with him in hot weather. This is more likely to be an acid fruit, as strawberries, or to the use of too much protein, as meat, eggs, or fish. It will be well to eliminate meat of all kinds from the dietary, and to avoid tea and coffee. A cool full bath daily will help to prevent the rash. Sometimes the application of sodium bicarbonate or of talcum powder to the skin is effective.

The length of time between feedings for babies depends upon their age. For the very young child it should be an average of two and one-half or three hours, and should be progressively increased as the child gets older. The young baby should be allowed to eat once in the night; but as it gets near a year old, should go from ten till six without any food.

How Much Butter?

"How much butter should be eaten in a day?"

The average person can use from one ounce to two and one-half ounces a day. Some persons can use more than others, and some will find two ounces too much. I think you can safely use at least half an ounce at each meal; of course this depends upon the amount of other kinds of fat eaten, as olive oil, cream, etc. Vegetable fats are much more readily assimilated than are animal fats,—as lard and tallow,—and they do not contain the sources of disease that animal fats contain.

NEWS NOTES

German Brewers Near Disaster

According to recent Berlin dispatches the Central Food Commission has decided further to reduce the quantity of grain allowed for the production of beers. Hundreds of breweries have been closed, and those that remain are threatened with the same fate.

Cleaning Bottles with Shot

The *Western Druggist* issues a warning against the use of shot in cleaning bottles which are to contain medicines or beverages. It has been shown that sufficient lead is left in the inside of the bottle, in such a process, to give a marked reaction for lead; and there is a possibility in this way of conveying injurious quantities of lead in medicine or drink.

Fiber Containers

Owing to the shortage in tin, Secretary Redfield has urged that as far as possible fiber containers be used instead of tin. In order that there may be sufficient tin to preserve fruits and vegetables, it is suggested that the following be packed in fiber containers: "Coffee, tea, tobacco, soap powders, cleaners, shoe and metal polish, soaps and shaving preparations, talcum powders, alum baking powders, spices, condiments, raisins, prunes, and various drugs and chemicals."

Gasoline a Good Emergency Disinfectant

The value of gasoline in cleansing wounds having been thoroughly tested on the battle field, Dr. Dorothy Childs, of the University of Kansas, urges that an eight-ounce bottle of gasoline be kept in the family medicine chest for use in treating cuts and scratches. It is especially valuable for a lacerated wound, or if the skin was dirty when the wound was made. Childs suggests washing the wound with gasoline, then painting it with tincture of iodine, using a small wad of absorbent cotton.

"WHEREAS, We believe that the use of alcohol is detrimental to the human economy, and,

"WHEREAS, Its use in therapeutics as a tonic or stimulant or for food has no scientific value; therefore,

"Be it Resolved, That the American Medical Association is opposed to the use of alcohol as a beverage; and,

"Be it further Resolved, That the use of alcohol as a therapeutic agent should be further discouraged."

The foregoing resolution was adopted by the House of Delegates at the recent annual meeting of the American Medical Association.

American Medical Association and Alcohol

At the annual meeting of the American Medical Association, Dr. Frank Billings, of Chicago, introduced a resolution unanimously adopted by the council, which expressed the opinion that alcohol has no drug value, either as a tonic or as a stimulant; that it has no value in the treatment of disease; and that its only legitimate use in medicine is as a preservative, and in the preparation of certain pharmaceutical products.

Canadian Verdict on Chiropractic

A St. Thomas, Ontario, engineer died of typhoid fever while under the care of a chiropractor. According to the coroner's jury his death was due to fever, lack of nourishment, and improper treatment. The jury recommended: "We strongly recommend to the city solicitor or proper officials that the provincial government be petitioned with a view to compelling chiropractors to pass their matriculation, and define in their diplomas the diseases in which they are entitled to practice. We further are strongly of the opinion that they should not be allowed to mislead the public by their professional advertising."

Doctors Favor Total Abstinence

At the annual meeting of the American Society for Clinical Investigation recently held in Atlantic City, the following resolution was adopted unanimously: "*Resolved*, That in the critical condition of the world's food supply we consider it desirable that the manufacture of alcoholic beverages and their importation into this country be prohibited for the duration of the war, and for at least one year thereafter." Among those who voted for the resolution were a number of physicians of more than national reputation. The *Bulletin* of the New York City Department of Health, commenting on this resolution, advises physicians to abstain, at least during the war, from alcoholic beverages, and to urge their patients to do the same.

Mailed Liquor Advertisements Barred

Postmaster-General Burleson has announced it will be unlawful after July 1, to mail letters, post cards, publications, or other matter containing liquor advertisements, to Alabama, Arizona, Arkansas, Colorado, Georgia, Idaho, Indiana, Iowa, Maine, Michigan, Mississippi, Montana, Nebraska, New Hampshire, North Carolina, North Dakota, Oklahoma, Oregon, South Carolina, South Dakota, Utah, Virginia, Washington, and West Virginia. The effect of enforcement of this order will mean that practically every publication now carrying liquor advertisements will have to drop them, or, at least, get out separate editions, and this latter would not only be expensive, but uncertain.

Legalizes Sale of Skim Milk

After a ten years' campaign the department of health of the city of New York has secured legislation permitting the sale of skim milk. This is wise legislation, especially in this time of food scarcity and soaring prices. Skim milk is a valuable food, rich in protein, carbohydrates, mineral salts, and vitamins, and there is no good reason why it should not be sold for use as human food, provided it is reasonably clean, is properly labeled, and is sold at a moderate price.

Boiled Milk Versus Raw

According to Brennerman, artificially fed babies are as a rule harder to bring up on raw milk than on boiled milk. He attributes this, not to the bacteriological difference in the milk, but to the fact that raw milk coagulates more rapidly in the stomach in large masses. He asserts that babies fed raw milk are much more liable to pass hard curds in the stool than are babies fed on boiled milk. In Europe the practice of boiling milk is much more general than here, raw milk not being considered safe for infants. Brennerman thinks the idea that raw milk contains anything vital which is destroyed by boiling, is largely theoretical. His conclusion is that if milk boiled two to five minutes in the consumer's home were as popular today as is raw or Pasteurized milk, babies would suffer less. In the discussion most of the hearers seemed to express a similar view.

Oxygenated Milk

Clifford G. Grulee (*New York Med. Jour.*) gives an account of the process of producing oxygenated milk, used in the Presbyterian Hospital, Chicago. It was installed in 1915 by a Danish chemist, N. D. Neilsen, on a plan following the scheme of Dr. Budde in Copenhagen, where it was introduced in 1903. This milk takes the place of certified milk for children and infants, and is distinctly cheaper. The process is as follows: Good raw four-per-cent milk is treated with hydrogen peroxide, one quart to twenty gallons; it is then heated to 122°-128° F. for one-half hour, being stirred by a fan in the reservoir so that it is kept in motion the whole time. The milk is then withdrawn and bottled hot, and kept on ice until used. This is a preserved milk without any preservatives, because at the end of a half hour's treatment only a trace of the hydrogen peroxide can be obtained. By this process the milk is made sterile, and therefore all bacteria are inactive, rendering the milk safe from distribution of pathogenic organisms. The advantages offered by this process are that fresh milk can be obtained at any time of the day or night; its absolute safety; and the fact that it can be kept as long as two weeks at room temperature without souring during the summer months, thus insuring greater safety. Grulee says that theoretically the chemical change is only a destruction of the catalase enzyme in the process of splitting the hydrogen peroxide. However, he found that oxygenated milk cannot be used in the preparation of buttermilk, as it prohibits the growth of the necessary bacteria. — *Pediatrics*, January, 1917.

Malaria Prevention

An Italian physician, De Blasi, has called attention to the fact that malaria is apt to be more prevalent and more severe in mild winters and rainy seasons. He urges that instead of placing too much reliance on quinine as a preventive, care be given to other preventive measures, such as isolation of the sick, and fumigation of their rooms before non-malarial persons are permitted to occupy them. He has found methylene blue to prove effectual in cases which were refractory to quinine.

Drug Addiction Not a Habit

The committee on narcotic addiction of the New York State Legislature has decided to consider drug addiction a disease and not a habit. It is the determination of the committee to make it possible for certain unfortunates whose condition demands narcotic drugs to obtain them. According to the report, one of the first duties of the State is "to establish a supply of narcotic drugs, to which the confirmed addict shall have access, under proper State regulation, pending the establishment of a rational and scientific treatment for this disease." Many physicians would question the wisdom of this policy.

To Control Yellow Fever

The Cuban government and the Rockefeller Foundation of the United States, through the International Health Commission, are coöperating in a movement to rid other countries of the yellow fever scourge. Having obtained leave of absence from his country, and authority from Surg.-Gen. William C. Gorgas, who is president of the International Health Commission, Dr. Juan Guiteras, director of sanitation of Cuba, will undertake the work, beginning a series of investigations on the island of Martinique and in Maracaibo. The Rockefeller Foundation has consigned to Dr. Guiteras all the scientific apparatus, instruments, serums, etc., necessary for the investigation.

"WHEREAS, Several of the European countries engaged in the great war have found it desirable to place themselves on a prohibition basis; and,

"WHEREAS, We wish to neglect nothing that will make for the general good of the service; and,

"WHEREAS, Our loyalty in such time of stress should lead us to ask nothing of those going to the front which those remaining are not willing to demand of themselves; therefore,

"Be it Resolved, That this Association place itself on record as favoring national prohibition both for soldiers and civilians during the war period and for one year thereafter."

This resolution was adopted by the National Association for the Study and Prevention of Tuberculosis, at its annual meeting held in Cincinnati, May 9-11, 1917.

Sublingual Medication

The space under the tongue, with its high vascularity and its thin membrane, is an ideal place for the absorption of medicaments, far superior to the dorsum of the tongue, or to the stomach. Many remedies administered in this manner are absorbed almost immediately. A tablet of apomorphine thus administered will cause vomiting at once, even more promptly than by the hypodermic method. The time of preparing the syringe, the skin, etc., is entirely saved. Place the medicine behind the lower incisors, and restore the tongue to its normal place. If the mouth is dry, it should be first rinsed or moistened with water.

Bad Teeth in Mother

In the (London) *Lancet*, June 2, 1917, Dr. E. Spencer Pierrepont, a dental surgeon to the East London Hospital for Children, has an article on "The Influence of Maternal Oral Sepsis on the Fetus and Marasmic Children," in which he shows as the result of observation in a large number of cases, that wasting and early death on the part of the baby is frequently an accompaniment of foul mouth conditions, pyorrhea and decayed teeth, on the part of the mother. In some cases breast-fed babies of such mothers, which were slowly dying, improved when they were put on bottle milk. "In some 10,000 cases of infantile diarrhea and vomiting when the children had been suckled on the breast, these cases extending over a period of nearly ten years, the child has been immediately taken off the breast and artificially fed, and in the great majority of cases the diarrhea or vomiting has ceased."

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ANNEX

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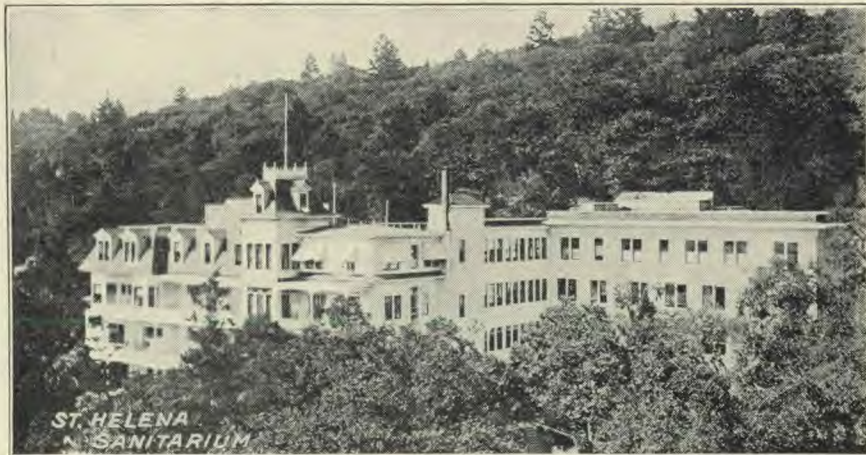
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JOHN 3:1-2.

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