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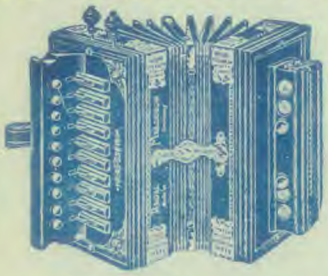

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VOL. V NO. 12

Contents, December, 1914

CHILDREN SKIING IN EUROPE

General Articles

The Englishman and His Food

By A. G. Simmins

A FAVOURITE maxim of a well-known vegetarian is that the reform diet was never a failure when it had not been tried. To this he and many others can add that where it has been tried it has in a multitude of varied cases been a huge success. Experience is the only convincing teacher, but we usually require a few persuasive arguments before we are willing to become her disciples, so in this article the writer has brought together a few facts, gathered from various sources, which if carefully considered, should impel the candid reader to try for himself the fleshless diet.

There is no need to waste time to day telling a man of his close resemblance to the higher apes. The scientists have certainly convinced him of this, whatever his opinion may be of their theories of his *descent* from ape like ancestors. Couple with this the facts that the apes are frugivora, that is, eaters of fruits and nuts, and that it is a wellnigh universal law of nature that animals resembling each other in bodily structure eat very nearly the same kind of food. It is highly probable, therefore, that man also is frugivorous. This thought leads us to investigate the matter more closely, and we find that man resembles the higher apes in many minute particulars, whereas he markedly differs from the animals with other dietetic habits, such as those that eat flesh or grass or insects. His teeth are of the frugivorous type—his so called "canine" teeth are canine only in name; his stomach differs nearly as much in its structure from that of the carnivera as from that of the herbivora; his intestines correspond in structure and length to those of the fruit eating animals. The natural inference is that where such resemblances in structure exist, habits should also correspond. In the cases of primitive tribes we do find there is a marked similarity in habits, but that the higher the civilization, the wider the gulf between ape and man.

It may be urgued against the vegetarian diet that man when civilized is living under changed conditions, and therefore his primitive diet is no longer suitable. There is much truth in this—everyone knows that a clerk does not require the same kind and quantity of food as a labourer—conditions do alter the requirements of the body, but this is no valid argument for *flesh* eating. Those who use this line of reasoning also forget that there are two opposing currents in civilization. One is flowing towards a more complex and more artificial life; the other flows back towards nature and her simplicity, and this current is flowing more and more rapidly at the present day. The unnatural tasks civilization has made necessary are being made easier and more quickly accomplished; the hurried travel so characteristic of the day is being made more comfortable and safe, so that man's constitution is but little effected by a journey of a thousand miles; the slum is being replaced by the garden city with its country air and sunshine; golf played in the open is supplanting the billiards of the closed room. Man is finding that his real strength lies in keeping his body as near to its original place and state as possible, however high his intellect may have ascended, and he is return-

ing to a simpler mode of life. All social reforms tend in this direction. It is not surprising that he should also return to his original diet, varying it in quantity and combination to suit his new conditions. By so doing many a man is finding far better health and greater enjoyment of life in spite of the unnatural or disagreeable or wearying conditions under which he has to live and work. The classic proof that a fleshless diet enables one to maintain the best of health under modern conditions was afforded by Professor Fisher's experiments at Yale University a few years ago, when a number of university athletes, trained strictly in the ordinary way, and a group of vegetarian doctors, nurses and others, with no special physical training, were put through several endurance tests, such as lowering and raising the body by bending and straightening the knees as many times as possible. It need scarcely be said that the superiority of the non-flesh eaters in endurance was astonishing.

A pertinent question here is: Does a diet without meat give the staying power required in everyday life? The answer is an emphatic affirmative. The increased ability to stick to one's work is often very noticeable. The case can be quoted from memory of a housekeeper, quite unprejudiced in regard to diet, who, after she had been living with a vegetarian family for a while, expressed her surprise at the greater endurance and lessened fatigue she noticed after giving up meat.

A few years ago a friend told the writer that when he first went out to the Argentine Republic he was warned on arrival against getting the slightest scratch on his skin, as such scratches often became poisoned. For a while he found that when he cut himself accidentally, the cuts healed up quickly, as in England, but after some time, any cuts he had used to fester and give him trouble. He himself, on thinking it over, thought that the cause of it was the change from a diet containing very little meat to one consisting almost entirely of meat. There was probably a lot of truth in his surmise, for a Paris surgeon recently published a paper in which he strongly advocated the withdrawal of flesh foods from the diet of patients before and after operations, and he based his arguments on his own experience. At a vegetarian institution the results obtained in the healing of surgical wounds are at least equal to the best obtained elsewhere.

Marked differences are to be found between the secretions and excretions and the blood of the consumer of a mixed diet and of the vegetarian. Hand in hand with these goes an increased resistance to bacterial or microbic infection in the vegetarian, which accounts for the diminished liability to blood poisoning which he enjoys.

The establishment of a perfect system of hygiene demands that the bodies of animals should not be used as human food. Tuberculosis may be caused by the consumption of infected meat; trichiniasis, a disease acutely painful and which may end fatally, is caused by eating diseased pork, and is fairly common in Germany and the United States; tape worm is derived from meat. Statistics show that the countries with the highest meat consumption have also the highest death-rates from cancer.

It is true that there are certain serious diseases due to the eating of infected or inefficiently prepared grains. The causes of most of these, for example beri beri, lathyrism, ergotism, have now been found out, and means are being taken by which they are being checked and gradually exterminated.

In a half-hearted way the same is being done to stamp out the diseases due to flesh foods, but with what little success! Why not take the only step that can lead to certain success, and drop altogether out of our diet the unnecessary meat?

Unnecessary! It is a hard word to apply to a food which ninety nine out of every hundred Engiishmen enjoy two or three times every day and look upon as the founda-

tion of all their strength and treasured national characteristics. "It is so nourishing," they say. Any table of food analyses will show that two thirds or more is water. "It is so stimulating." Yes, but stimulants are going out of fashion. In the 1914 edition of an orthodox medical book occur these words, already familiar to many: Stimulants "have been likened to 'whipping a dying horse'"—a horrid process! "It is so much more digestible than nuts and beans." Perhaps some meats are, but if this argument be carried to its logical conclusion we should all be eating peptonized foods, as being the most digestible, and no one advocates them for healthy individuals. That nuts are indigestible when eaten properly and in place of meat can be denied.

With respect to moral stamina and character, it is claimed by many after a thorough trial that a meat free diet makes self-control more easy and keeps the mind more alert and observant. The Englishman's much-prized endurance and power of self-control are thus helped and strengthened by a vegetarian diet.

Clothing and Health

G. H. HEALD, M. D.

WITH some show of reason the discussion of the hygiene of clothing has centred principally around the corset, for the reason that among the garments used in civilized lands, the corset is the worst offender against health, in that it interferes with the functions of the vital organs—those that have to do with the preservation of the individual and the species. Does this seem a strong statement? Here are some of the charges brought against it by physicians who have ample opportunity to know whereof they speak:—

The corset, as it is sometimes worn, constricts the liver, and in some cases almost cuts it in two; it greatly embarrasses the action of the stomach, heart, and lungs; it displaces important pelvic organs, thus causing a large proportion of those severe and disastrous conditions which invalid so many women.

The fashioners of the corset formerly paid no attention whatever to the physiological needs of the body, but modern manufacturers make at least a pretense of conforming to the requirements of health; and some have made more or less successful attempts to produce corsets which allow the chest to expand, and which lift up rather than depress the abdominal and pelvic organs. Probably in some of the best of these models there would be little to condemn.

But it is a question whether young girls should ever wear any form of stays, even those recommended as healthful. Jessie H. Bancroft, in "The Posture of Schoolchildren," after explaining the difference between corsets which compress the abdomen and the more unobjectionable styles, says:—

"It should be clearly understood that sanction for the wearing of corsets applies to the adult, and not to the immature figure. One cannot make too emphatic the harm that results through crushed ribs, restricted growth, displacement of organs, and interference with all the great physiological functions, from construction during the period of growth."

Another feature of woman's dress that has called for much protest is the high-heeled shoe, devised for the purpose of making the female foot appear short and with high instep. Here again modern taste is awry, for can we believe that any part of the body must be distorted and rendered inefficient in order to be beautiful? The Chinese idea of female foot beauty, horrible as it is, is only an exaggeration of our notion; for in order to produce the high-heel effect, the weight must be carried by a portion of the foot not intended for it, and the bones must form new and unnatural articulations, which cripple the feet and render them less efficient.

But it is not so easy to dress hygienically

even if one chooses to do so, for often it is difficult, if not impossible, to purchase at any price wearing apparel that is not hygienically indefensible. This is especially so with shoes. It is almost impossible for a woman to find on sale a sensible shoe. And it would be out of the question for the average person to have shoes made to order.

But it is not only female attire that offends against health. Men's coats, waist coats, and shirts are so cut as to throw the neck and shoulders forward,—the consumptive position,—as has been pointed out by physical director of schools who found difficulty, on account of the cut of their garments, to get schoolboys to maintain an erect posture.

It may not be amiss to consider the material of which clothing is made. One of the purposes of clothing is to keep the surface of the body at an equable temperature. For this reason, it should be a fairly poor conductor of heat, but it should be a fairly good conductor of moisture. If it were an absolute non conductor of heat and moistere, the result would be equivalent to a Russian bath or a hot blanket pack,—not only uncomfortable but health-destroying. To a certain extent the moisture and the heat of the body must escape, but not too rapidly; therefore the clothing is so arranged that they shall escape at such a rate as will maintain a proper surface temperature. For this reason heavier clothing is worn in cold weather, to furnish a better non-conductor of heat.

It is not the clothing, but the air imprisoned in the clothing and between the layers of the clothing, that constitutes the non-conductor. For this reason very fluffy garments —irrespective of the material—are "warm." The question, "What material shall we use?" has been many times propounded and variously answered. For undergarments some favour wool; some, linen mesh; and others, cotton. In favour of wool it is stated that it has in very high degree the capacity for absorbing moisture without feeling wet, and that evaporation proceeds very slowly, while cotton clothing becomes very easily saturated with moisture, and gives it off so rapidly by evaporation that the body is apt to be chilled.

Against the use of wool is the fact that it is almost impossible to get a garment washed without shrinkage, and this shrinkage is repeated until the garment is too small to wear, almost as hard as a board, and the air-containing mesh is largely closed up. Woollens, moreover, are expensive, and many persons find them irritating to the skin.

In favour of cotton is the fact that when properly meshed, it answers very much the same purpose as wool. It does not shrink, and if woollen outer garments are used, they check the rapid evaporation. Cotton undergarments are much cheaper, are easily laundered, do not shrink, and by many persons are worn the year round.

Wax and Deafness

WAX in the ear is a normal secretion. The glands of the face, and the glands of the scalp which keep the hair oily, are the same sort of glands as those of the ear which produce the wax. The wax is a little different, but it is the same kind of gland, making with little modification the same secretion. The cells lining the canal of the external ear, instead of growing into the lumen, or opening of the canal, grow outward in the other direction, so that they push everything out. The growth is toward the external ear, and the wax is carried along out toward the outer surface. Then the wax accumulates in little particles, and usually breaks off from the skin of the ear and falls out when a person is turning the head or lying down at night.

In certain persons this wax accumulates until it fills the entire canal. The result is great impairment of hearing and an irritation which the person feels in the side of the head or ear. One common cause is washing the ear and leaving some soapsuds in the ear which become dried, and it is thought that this coating of dry soap causes the formation of a ball of wax. Any eczematous condition causes the flaking off of scales such as we find on the back of the hands, and these scales act as centres round which the wax accumulates. Then, again, the little hairs which line the canal are thrown off and cause a detention of wax.

There is a condition in which there is an excessive amount of wax produced, as sometimes there is an excessive amount of oil produced in the hair. Dandruff in the hair is merely an evidence of excessive amount of oil production on the scalp.

The question of removing the wax comes up. It should be removed, and the question is how it should be done. One eminent ear specialist says that if you ever want to use anything in the ear, never use anything smaller than your own elbow, so you will not do any damage. But it is true that the ear doctor in general does not get the wax out by means of an instrument. That is, he does not rely upon instrumental removal as the best method. It is better to have someone remove it who can she what he is doing, because the ear is delicate and some damage may be done. Good methods are these: Fill the ear with glycerine and turn the head over, and pump it back and forth by putting the finger on the soft mass in front, that softens the wax. The next day fill the ear with a little warm peroxide of hydrogen, and that will also burn its way into the dried masses of wax, and you can push that around in the same way. Leave it for five minutes or so, and then let it run out.

The best thing with which to irrigate the ear in order to get the wax out is a warm solution of baking-soda, about a tablespoonful to a glass of warm water. The soda dissolves the wax. The best way to irrigate

HEALTH MAXIMS

Fresh air is the best life insurance agency.

Good health is priceless, yet it is without price.

Coddle yourself and you invite pneumonia.

The best defense against disease is the simple life.

Colds are not caught from fresh air, but from stuffy air.

Pure air makes pure blood; pure blood makes you disease-resisting.

Health is not put up in bottles, and can not be bought at the chemist shop.

The more sunlight and fresh air in your house, the less the need of a doctor.

Tea, coffee, and alcohol are stimulants—not foods. They lift one up to drop him hard.

Don't hibernate; ventilate. Plenty of fresh air will make the fires of life burn brightly.

Robbing one's self of sleep is putting a mortgage on future health and happiness. Nature will surely foreclose.

Chew your food; your stomach has no teeth. The hen swallows her food without chewing, but she also swallows grinders.

is either with a small hand bulb syringe with which to force the water in and let it run out again, or a fountain syringe. Fill the fountain with warm soda and water, and have it no more than two feet above the ear, so that it does not enter the ear with too great force and injure the drum. If it is not all washed out the first day, try again the next day, and after it is all out and the water has been all drained out by putting the ear over to one side and wiping it out with a little sponge of cotton-wool, drop in a drop or two of alboline.

There is one precaution I want to make prominent, and that is, the irrigation of the ear for any purpose should never be done if the person being treated has ever had an abscess in the ear, or any condition in which there has been a discharge of water or blood or pus from the ear, because if there should be a perforation in the ear drum, some of the solution with which you irrigate may get through to the middle ear, and if it does it will inevitably set up infection, aud there is apt to be a very bad complication.—*B. N. Colver, M. D., in the Battle Creek Idea.*

Cigarettes a Cause of Crime

ABRAHAM BOWERS

This article first appeared in the "Scientific Temperance Journal"

SOME years ago I was a teacher of boys awaiting trial in the Cook County jail in the city of Chicago. Prier to that time, I had not seen much of the evil effects of any of the narcotics. Almost immediately after beginning my work there, the insatiable grip of the cigarette was brought very forcibly to my attention. While taking training under my predecessor, I noticed that he was continually suppressing the use of the "nail;" and when it came my turn to take charge, I had much of the same difficulty that he had had. Although the sessions were only two hours in length, and the boys could smoke as freely as desired in their cells, it was nearly impossible to keep them from smoking in the schoolroom. When the school was in session, they would light cigarettes and take a puff

Harper's, November, 1910

As seen by mother

As the neighbours see it

THAT HALO

or two while my back was turned. Often during intermission a few boys would form a small circle, one would make and light a cigarette, and then quickly pass it around to the others, attempting to do this without the teacher's seeing it. Some would carry the lighted cigarettes in their pockets, and, as they moved around the room on the pretext of spitting out of the window, would take two or three draws. After a cigarette had been apparently used down to the last and thrown away and trampled underfoot, some habitridden youth would grab up the "snipe" and give it a draw, though it was dirty and wet from the lips of another boy.

If a boy newly incarcerated was known to have a few pennies and he would not "divide up," the crowd would surround him, take them away, and pass them to the tier below for tobacco and wrappers. If a suit of old clothing was sent in to a destitute boy, he had to be watched to prevent his trading it to a man from another tier for a supply of tobacco for himself and friends.

Sometimes a boy would fall asleep on his bunk early in the evening without the cigarette materials for use before morning. He probably would be awakened about two or three o'clock in the morning by the physical demands for a smoke. Immediately he would begin to call to his friends in adjoining cells, and if they did not hear, he would call to the boys in the other cells to get them to assist in waking his nearest neighbours for cigarette material. If he could not succeed in that way, he would take his shoe or some other substantial object and pound the iron walls of his cell until he sometimes awoke nearly every one in the jail in his attempt to rouse the nearest boys for the "loan of a smoke."

One of the first things I noticed in the boys who came into the jail was that they told me that in their desire to reform they intended to cut out cigarettes. I was a total abstainer myself, and had not been particularly interested in the use of cigarettes by any one else, and for a long time I did not think of speaking to the boys in a way that would call for such statements. I used to hear the boys say, when they were talking to their relatives or friends (through the screen), that they intended to cut out cigarettes and begin all over again. For quite a while I gave the boys a set of sixteen questions to answer in writing, concerning the causes that led to their being locked up in this place. Fully seventy-five per cent mentioned cigarettes as a contributor. Some even told me that when they were younger and were on the streets, their craving for a smoke would cause them to steal in order to secure money or some thing with which they could produre cigarettes. Others testified that they had not learned to use liquors in excess because they preferred the cigarette.

It may be of further interest to know that but few rum shopkeepers have cigarettes for sale, and that they are opposed to their use, on the ground that they prevent the sale of alcoholic wares.

Alcohol--Testimony, of the Psychological Laboratory

WE will consider the much-argued question of alcohol and its effects on man. Does whiskey make a person more brilliant or less so? Formerly we had no exact proofs on this question, either for or against, and a great many persons could always be found on both sides of it, some interpreting their experience as indicating the affirmative, and some the negative. And we were bothered with the matter of the personal equation. Some were held to be made more brilliant and some less, but how much more or how much less, or in what ways, it has been left to experimental psychology to determine with exactness, and this it does as follows: —

We first ask the subject, any given person, to go through, in his normal condition a series of mental operations, measuring his speed in terms of a thousandth of a second. We give him a common sum in addition, noting accurately the time consumed in finding the answer. We then pass him a list of fifty words, and he is asked to read them to himself, at the same time speaking instantly the first word suggested to him by the sight of each word in the list, and we mark the nature of the spoken word as well as the time employed in thinking what word to speak. Then we measure the clerity and accuracy with which he counts the number of words on the page of a book. We ask him to repeat the first line of the first poem or other writing that comes into his head, noting the time that he requires to begin speaking. After this we test his memory by giving him a number of ideas of our own, and asking him to put as many of them as he remembers, and as quickly as he can, into words of his own, and these results also we accurately record.

There are countless other tests that can be given the subject, each one of which may throw, in its results, a little light on the problem of this individual's mind-contents in its normal condition, the sum of all of them putting him before us in all his nakedness; but those given here are enough to indicate the method employed. Then, having been tested in all these particulars while in the normal condition, he is given similar tests while under the influence of this or that dose of stimulant, and the sums of the two results are compared with all the certainty and accuracy of a mathematical problem, and we find that, in this man's case, certain differences are manifest between the normal and alcoholic conditions of mind. We then go through the tests with other men, and find as a result, without a single exception, that the only sense in which any or all of these men can be said to show increased brilliance under the impetus of alcohol, is in the matter of outer images, things, objects of space and time, superficials; and this only for a few minutes, after which the mind drops back to a slower working than before. Ideas initiative, mental accuracy, determination, are dulled almost to the point of extinction, depending upon the amount of the dose or dose taken.—*Geo. F. Butler, A. M., M. D., in Medical Times.*

Editorial

Village Sanitation

The village may properly be called the unit of India's people. Any reform, be it ever so small or so large, in order for it to effect India must be felt in the village. When Calcutta, Bombay, and Madras have been provided with clean paved streets, sewage systems, good water, good milk, proper housing conditions, hospital facilities (tubercular, general, and isolation), and baby shows, the sanitary problems of India are touched with but the tips of the fingers. In order to influence the 7,000,000 needless mortality of India the village must be reckoned with. It is there where the influence of the reforms must be felt. Then and not until then can it be hoped that India will take her place beside the other nations of the world in the prevention of disease.

In India, village sanitation is easier to talk about than it is to bring about. There are many things which make it a difficult task. The education of the people to the point where they will appreciate better conditions of living and the finances to bring about the necessary reforms are probably the two most serious difficulties. The latter hinges upon the former to a great extent, as when the people see the necessity of a reform which is to their interest they will be glad to help bear part of the expense at least. As an illustration of the former: in some irrigated tracts Government has provided for roaming territory for the stock so that man and animal can live apart from one another. Yet in these same tracts you find some of the village folk preferring to cast their lot with their stock in living quarters. This has more or less influence in discouraging reform. An illustration of the latter is the money wherewith to keep the streets clean, care for refuse, etc. In these education will have to play a great part. It is not so much that there is a lack of means in the village as it is a disinclination to spend the money in the right direction. The village folk can find plenty of money to make gorgeous displays in wedding ceremonies and feasts, but to spend money to keep the village in a tidy condition is a waste. To them the former appears more necessary than the latter. Education alone will reverse the conditions.

In providing more sanitary conditions for the village it is to reduce the mortality of those diseases which are a menace to the populace of India. These are malaria, cholera, plague, dysentery, the bites of animals, and typhoid fever. Although the latter is often termed the white man's tropical disease it is frequently met with in the Indian sick.

Anything that causes water to collect near the village site or anything that makes dampness or too great a shade is sure to increase malaria. This is especially noticeable in canal-irrigated lands. These tracts, before being irrigated, were the most healthful parts of India. Splenic enlargement and increase in malaria will be found in a direct ratio to the number of years the land has been irrigated up to a certain number of years. In many instances the village site becomes water-logged. This furnishes favourable conditions for the growth of the mosquito, the carrier of malaria, and thus brings a great amount of suffering upon the villagers by an increase in fever. Those tracts that have been fortunate enough to have large unirrigated areas surrounding the village site suffer less in this respect. These large open spaces provide three sanitary measures: they keep the village sites drier, hold the villages aloof

from the green paddy fields, and allow ground on which the stock can roam.

It has been proved beyond doubt that paddy fields are a great factor in the spread of malaria. They harbour favourable haunts for the growth of the mosquito. For this reason paddy fields and other crops should be kept at least one hundred yards from the village as the malaria-carrying-mosquito is known to migrate this distance. Too many shade trees, prickly-pear, debris in the village are bad for the same reason. All prickly-pear and debris should be cleared away as they furnish moist shady places which the sun's rays never penetrate. In the hot months India's sun is looked upon with contempt, but it is the means of saving thousands of lives every year by the destruction of disease germs. The accumulation of prickly-pear, other weeds, and rubbish not only provide haunts favourable to the growth of mosquitos, but also snakes, scorpions, and centipedes which exact their toll among the sufferers of India. Those areas in which proper provision has not been made to guard against the water-logging of the village site in irrigated tracts now offer problems for the sanitary engineer to work out. In other countries such water-logged land is made habitable and good for raising crops by underground drainage. Many a marsh or swamp with apparently no outlet has been turned into a garden in this way.

The tidiness of the village ought to be the desire of every occupant. This means some system for the disposal of the refuse resulting from life in the village. An open sewer system with a flusher where sufficient fall can be obtained disposes of the liquid refuse. The solid refuse could be thrown into old kerosine tins with lids and collected every day and burned in appropriate places.

Every village should provide for the proper disposal of the night soil which should be treated with a cheap crude germicide before using it as a fertilizer on the land, or it should be burned. A latrine with the pail system, or other systems that have been worked out by the Department of Engineering answers the purpose. These allow of the sterilizing of the night soil before it is disposed of. The habit of using the field, open spaces, or a hole sunk into the ground for easement purposes is diametrically opposed to the principles of health. The fact that these practices are fly-breeders, that flies bear such an important part in the distribution of disease from one person to another by carrying disease germs, make these babits great factors in the spread of disease. Also the night soil from a person infected with cholera or dysentery deposited or thrown upon the ground without first being treated is almost sure to get back to other members of the village in the water or on the vegetables grown upon the land thus polluted to cause more disease, as the germs causing these diseases are known to be viable after long periods of apparently being dormant.

The housing conditions are very bad in the villages. Although this is not so great a factor in the spread of tuberculosis in a village as it is in our large cities, yet it goes to help make up the picture of filth and squalor that we so commonly see in village life. The housing conditions are dependent upon two things; viz., ignorance and lack of means. Yet, if the former were removed, conditions would be greatly benefited. The mud houses of the village can be so arranged that more space, light and ventilation can be provided with but very little extra expense. The necessity of such must first be seen. Medical missions located so as to fill in the great gap between our better-provided-for centres could well spend a part of their building funds in building small model villages with model houses, drains, sewage disposal, latrines, etc., to be used as a part of the hospital unit. While we know that this would not cause a wholesale reform in village life, yet it would not be such an impracticable example for them to look upon who visit these stations for relief from physical ail-

ments, having come from distances of thirty and forty miles. To every one possessing ordinary intelligence who beheld it, it would preach a sermon of healthful living.

The supply of drinking water for the village is a great factor in the maintenance of the health of the village. Bored wells provided with pumps are the best. These are more costly, yet some parts of India are encouraging this system. The next best is probably the dug well which is lined with cement or brick and the bottom filled with crushed stone over which coarse grain sand is laid. The sand is removed once or twice a year and replaced. This clears out the well thoroughly. The curbing of the well should come above the ground two or three feet, and should be built in such a way that the water does not percolate back into the well. Here again, the best means of drawing the water is the pump. Here also the Department of Engineering has drafted some plans of the village well that will do admirably to provide the village with good drinking water. Some designs are made that allow the use of iron buckets for drawing, and yet have the well covered and locked to keep out filth and dirt. Cholera, dysentery, typhoid fever and some varieties of worms are spread by the drinking water from the well.

Pigs, cattle and horses ought to be kept apart from the living quarters of the villager. The stock should have separate quarters. When allowed to roam about the village and living compounds, they only add to the dirt and filth of the village.

Weeds, prickly-pear and rubbish we have already mentioned, but not in connection with the rat which is a menace to the people of India by harbouring the flea which is the transmitter of plague from one person to another. Debris furnishes hiding places for the rat. Once this rubbish is removed and the village cleaned up the rat disappears and so does plague, which kills thousands in India every year.

Stray, lean, lank dogs which are allowed to wander around the village are not only an eyesore to the village, but are the cause of many deaths in India. These animals are liable to go mad any time and bite a dozen or so people who will develop rabies and die as a result. All such dogs should be put out of existence. This would be to their own good as well as to the good of the public.

The village pond should be kept at a distance of one hundred yards from the village. It is very noticeable in villages where the pond is close to the village that the villagers suffer more from fever than the villagers in a village in the same tract whose pond is at a distance of one hundred yards or so from the village. Again, the pond furnishes favourable conditions for the spread of malaria. For the same reason all holes dug into the ground that retain water should be filled up.

A more elaborate plan might be outlined for village sanitation and many more items might be added, but these are measures that will take time and patience to bring about. They will be accomplished slowly, little by little. Sanitation in its simplest form inaugurated all over India would be of the utmost encouragement to those who are interested in bringing about these reforms that would result in the lowering of the needless mortality in India due to disease.

Mother and Child

Keeping Young Children Well

CHILDREN do not cry without cause any more than do grown-up people. There is something wrong somewhere when the little folks are cross and fretful, and so, instead of scolding and whipping them, "to give them something to cry for," try calmly and intelligently to discover just what is troubling them.

Years ago, before the safety-pin was invented, when a baby cried it was often necessary to undress it to search for the busy little pin which was responsible for many a squall. But to-day the source of trouble is usually just as obvious.

When the little ones are tired and sleepy, they are asually cross, and also when they have been confined to the house for several days. Sometimes they may be hungry or thirsty, and not quite conscious of it, or, what is more likely, a slight touch of indigestion is affecting them. Sometimes too much or too strong soap is used, irritating the skin. Then there is the question of clothing. The child may be too warmly clad, or too cold, or there may be something too tight, or something scratching the tender little body. Children's shoes are often uncomfortable, and frequently their stockings work down, and the wrinkles hurt their tender little feet.

Children are naturally fretful when suffering from mumps, whooping-cough, measles, and children's other diseases, but as this is invariably accompanied by some fever, a loss of appetite and a coated tongue, it is usually recognised as something more serious than merely being cross.

Imperfect digestion is quite common among children when they begin to eat solid food. It is often caused by their swallowing their food before it is thoroughly mixed with saliva. Mothers of the uncivilised world in some cases obviate this difficulty by the very simple habit of masticating the food first in their own mouths. Indeed, I have seen this done by women in our own country. This may seem not merely disgusting, but unfair to the child, and especially in the case of an unhealthy mother. However, when you consider a vigorous, healthy mother, with a mouthful of sound, white teeth, this practice is partly robbed of its unwholesomeness, especially as it insures a child against indigestion. Of course this plan is not recommended, for one can never tell what infection the mouth may contain, but I have mentioned it to show the necessity for a sufficient use of the saliva. As soon as the child has teeth it can easily be taught to masticate its food. Give it a dry crust or a piece of toast now and then at meal time, which it will be obliged to use its teeth upon.

A breast-fed baby is seldom troubled with indigestion, unless fed too much or too often. Bottle-fed babies are not always so fortunate in this respect. Sometimes the stream of milk coming from the bottle is too large, and thus not mixed with saliva. This is easily remedied by procuring a new nipple and making smaller holes in it. Sometime modified milk should be given, as though for a younger infant.

Eating between meals among older children is another cause of indigestion, for it destroys the appetite, which is undoubtedly the most important factor in digestion. The skin becomes sallow or very flushed, while the tissues grow soft and the teeth decay. Cankers appear in the mouth from time to time, and the bowels are not normal. Many a case of so-called summer complaint, attributed to the heat or to fruit eaten, is the direct result of irregular or over-feeding.

The symptoms of indigestion as a rule are easily corrected by giving the child plenty of water to drink, particularly warm water, and by giving the stomach a rest. Never encourage a child to eat. It doesn't mater if one or two meals are missed. A warm bath, a little cuddling and a long sleep will do the rest.

Observe some sort of regularity in the feeding, as well as in the matter of sleep and other requirements, and give only wholesome foods. It doesn't need cakes and is better without them. Don't be afraid of fruits. There is nothing in the world which will avert a bilious attack or a cold so quickly as orange juice for an infant or lemonade for an older child. Be careful not to give starchy foods too early, before the salivation is well established. A child of six months is not ready for mashed potatoes, white bread, or corn starch pudding. Do not feed the child with meats nor allow it to taste your tea and coffee. Even cereal coffees and cocoa are mildly stimulating, and may prevent the child from sleeping. There are enough foods which a child may have, suitable for its age, to furnish sufficient variety to insure appetite, without the use of pastries or heavy vegetables. See that the child gets a drink of water often, and that this is either from some good spring or filtered. Never refuse it a drink, no matter if you have to get up in the night to fetch it.

To keep the children healthy and sweet-tempered, they must get plenty of fresh air. They cannot get too much. Try to get out with them at least once each day; let the breakfast dishes stand, and take the little folks out for an hour or two in the fresh, early morning air. It will do you all so much good that you will feel more than repaid for the set-back in your work, while they will sleep longer and tighter for it during their daily naps, and give you a chance to catch up. When the weather is too stormy to venture forth, put the children's wraps on them and throw the windows wide open. Do this also just before the afternoon naps, and you will see the beneficial results. Always when the little ones are asleep and warmly tucked in bed, have all windows wide open, so that every breath will be as pure as if they were outdoors. Even a young baby should have this fresh air, and it will not take cold. Neither will it cause colic. Colic is caused by the pressure of gases in the stomach and intestines, as the result of fermenting foods; while colds are developed from the over-abundance of wastes which the body tries to throw off. So get the child out-of-doors every day, and *especially* if it is ailing.

It is quite the prevailing superstition that one cannot escape the contagious childhood diseases, such as measles, whooping-cough, chicken pox, scarlet fever, diphtheria, mumps, and the like. We are told that we should try to have them while we are young, "get them and have them over with," assuming that every one is bound to contract them sometime, and that they are less dangerous in childhood. Sickness is looked upon as a natural instead of an abnormal condition, and the statement that anyone has never been ill in his whole life is regarded with astonished incredulity.

Any trifling indisposition on the part of the child is often regarded as the fore runner of a contagious disease. "He is coming down with something," the mother fears, and forthwith the little one is housed, bundled, and drugged until he bids fair to do justice to her fears.

There is perhaps no blame to be attached to anyone, least of all to the hard-working and devoted mother who wears herself out in the service of her family. There is no doubt she does the best she can with the knowledge she has—certainly no one would grieve more than she to know that through her ignorance and misdirected efforts she had done her child more harm than good. But parents must be educated in the care of children.

There is really no reason why a child

should ever be sick. I feel perfectly certain that children reared under proper conditions of life would not "catch" these diseases, even if exposed. It is the child with the lowered vitality that is subject to them. Depend upon it that there is something wrong somewhere when the little one gets whooping-cough, measles, scarlet fever, and the like. Doubtless there are disease germs lurking everywhere and in everything, and no one can escape eating them and breathing them at every turn. Our dwelling places are not ideal, and we cannot chemically analyse every morsel of food and every drop of water consumed. We have little or no control over the sanitation of the schools, the condition of the streets or our neighbours' homes, or the health of other children. But if good health is maintained a power of resistance is established that effectually baffles all efforts upon the part of these germs to settle down and make trouble. The body normally has the power to destroy disease germs, but as soon as the system becomes run down, these germs gain a foothold and multiply, and illness is the result.

When a child is in seeming good health, uncertain foods and unfiltered water are consumed without notice, and it is only when the child is actually ill that some sort of attention is paid to it. However, if the special attention was of the right sort, the child might even at the eleventh hour escape a serious illness. But with the usual ignorance in regard to the laws of health and the nature of disease, parents in general are almost certain to do the wrong thing and then the child is sure to have something. Windows are closed, if by any possible chance they had been open; extra clothes are piled on the little one, and it is coddled and given anything it wants, because it is sick.

At the very first sign of illness, look to the ventilation. You cannot have too much air. This may be accomplished without having a direct draught blowing on the child by opening windows in an adjoining room, and allowing the air to circulate gradually through the doorway. If the time is winter, furnish plenty of heat so that the open windows will not chill the air too much. The cost of burning a little extra fuel will not be nearly so great as what is usually spent for doctor's fees.

Allow the child to fast as long as possible, for the system is in no condition to digest and assimilate food. This will not be difficult, as in any illness there is usually no appetite.

If the child is fed regularly, its diet well balanced with plenty of frnit, if the bowels are normal and the youngster bathed often, with lots of fresh air, the mother may consider the little one quite immune from disease.—*Edith M. Bates-Williams.*

Some Healthful Recipes

GEORGE E CORNFORTH.

Rice and Egg Timbales

3 cups boiled rice (about ¼ cup before boiling)
2 cups milk (or part cream)
2 teaspoons oil
1 level teaspoon salt
2 eggs, beaten

Stir the cooked rice into the milk; add the oil, salt, and beaten eggs. Pour into oiled cups, set into a pan of hot water, and bake till firm. Allow to stand a few minutes after removing from the oven, then remove from the cups, and serve with cream sauce or parsley sauce.

Unfermented Graham Rolls

1 quart unbolted wheat meal
2 level tablespoons butter.
1½ level teaspoons salt
1 cup cold milk

Mix the salt with the flour, then rub the butter into the flour with the hands till thoroughly mixed. Then mix in the milk. Take the dough out onto a board and knead it thoroughly till a smooth dough is made, endeavouring to fold and roll air into the dough in the process of kneading. Roll the dough out with the hands into a long roll three fourths of an inch in diameter. Cut it into two-inch lengths, prick with a fork, and bake till nicely browned and well baked through.

This recipe may be followed in making beaten biscuit. White flour may be used, and the dough beaten well to make white beaten biscuit.

Graham Mold or Blancmange

⅓ cup unbolted wheat meal (ata)
1 pint milk
3 level tablespoons sugar
A few grains salt
½ teaspoon vanilla

Stir the wheat meal smooth with a little of the milk. Heat the remainder of the milk, with the sugar and salt, to boiling in a double boiler. Stir the meal into the hot milk, and continue to stir till the milk is thickened. Cook one hour. Stir in the vanilla. Pour into molds wet in cold water. When cold, turn from the molds and serve with cream.

Rocks

½ cup brown sugar
¼ cup cream (or 1 scant teaspoon oil with milk to make ¼ cup)
2 teaspoons molasses
1 egg yolk
⅓ cup raisins, chopped
⅓ cup chopped walnuts
1¼ cups dri d Brown bread crumbs

Mix the ingreedients in the order given; drop in small spoonfuls on an oiled pan, and bake till lightly browned.

These are called "rocks" not because they are hard, but because they are rough in shape, and any one who ventures to try this recipe will be surprised to find how nice these cookies are.

Mashed Peas

Mash one pint of peas. Cook in fresh water. Boil slowly till thoroughly tender. Let them cook down dry at the last. If necessary spread out in a pan and put in the oven to dry. After rubbing the peas through the colander, season them, leaving them a little softer than the beans; beat them well, and reheat in a double boiler, instead of baking them in the form of a loaf. When ready to serve them, pile them in a mound in the centre of a hot platter, and put boiled sweet potatoes around the peas. Serve with mint cream sauce made by adding chopped fresh mint or powdered dry mint to cream sauce.

Macaroni with Peas

Break one-fourth package of macaroni into inch-length pieces. Drop it into two qnarts of actively boiling salted water, and boil, stirring occasionally, till the macaroni is tender, about one-half hour. Turn into a colander; dash cold water through it; put it into one pint of cream sauce and add one-half tin or more of peas. Heat together.

Sanitation and Hygiene

School Hygiene

A writer has said: "Health is the parent of happiness; the two bring into being a cheerful worker; the cheerful worker acquires wealth; wealth provides the sinews of education, and education conduces to national prosperity."

Immediately connected with "health" is the science of "sanitation." The importance of health and sanitation has been recognized and acknowledged on all hands. Attention of both government and public has been directed to this all important subject. Rural and urban sanitation have become the standing subjects of discussion in conferences and congresses all over the country. Constant endeavours of government to build up a body of scientific workers for investigation, provision of laboratories to carry forward experiments, appointments of specialists and a band of workers in the bacteriological department, opening up of research institutes for ascertaining the causes of tuberculosis and other dangerous diseases, all these point to the appreciation of the high value of health and sanitation. In short, in every society—Hindu, Mohammedan, Christian—health and sanitation have been looked upon from time immemorial as the most essential factors, conductive to the health and comforts of man in this world. Hence it is clear, not only that the first thing to be striven for is health, but that a special care and thought should be bestowed and directed to the observance of rules of health and hygiene to the young.

A visit to a village or a middle class school in the province gives one an idea as to the deplorable condition of the health of the student population and general school hygiene. Lean faces, sickly bodies, and the generally dirty clothes worn by the boys, testify to the lack of care and attention paid by the parents, guardians, or teachers to the welfare and health of the children. School buildings and their surroundings, especially in villages, show a disregard of the principles of hygiene and sanitation. There can be no two opinions as to the desirability of making attempts to combine physical with mental education with a view "to make men with strong brains as well as muscles." Movements have been set on foot, both in India and foreign countries, to improve the physique of the boys and make them fit citizens. But the physical training cannot be properly undertaken without medical examination of boys when they attend the school.

It cannot be denied that school children often suffer from some disease or other during their early age. Neither parents, guardians nor teachers care to take notice of this matter. Naturally as the boys advance in age, the disease developes. Besides, it may be noted that the masses of the rising generation are being educated at too high a pressure. They are in fact having too many subjects crammed into them, injuring, if not wearing out, their power of mental digestion. Considering the nervous system of the child, it is not surprising that, owing to strain on the brain, many children suffer in the end.

In the second international Congress held in London in 1908 the subject of child hygiene and medical inspection of school was fully discussed by eminent people and experts on the subject. It was pointed out that among the most important results of the increase of scientific knowledge are the efforts to provide public supervision of the hygienic and sanitary condition of communities. In these efforts the important need of such service in connection with public schools, and of making the schools media for diffusing knowledge upon these subjects has been distinctly recognized. The various ways in which schools may conduce to the physical well-being of the pupils and to the progress made in the countries represented in the congress in establishing some form of hygiene or medical inspection of schools were very clearly brought out in the sessions of the congress.

The system of medical inspection can be gradually and advantageously introduced in the schools of this country. I think that the new system will meet with some opposition from the people. The popular attitude will be hostile for some time, as usually is the case with every new measure all over the world. The opposition will be overcome gradually and wiser counsels prevail when the people see the good

sense and advantage of the inspection. Parents and guardians will be glad to know the diseases from which their children suffer; those who are in a position to spend money will entrust their children to the treatment of a doctor, and the poor will be treated in the nearest dispensary.

The education of teachers and school children in hygiene is just as necessary as the medical inspection of schools. School hygiene should be taught as a compulsory subject in training schools. The elementary principles of the science should be well studied by the teachers before they are appointed as schoolmasters. Similarly, a small primer, dealing with the elementary principles of sanitation and health should be introduced in the course of the primary schools, and the following good suggestions made by the Sanitary Commissioner, C. P., may be followed with advantage. A short note upon the cause, prevention, and treatment of epidemic diseases has been drawn up and the Director of Public Instruction has promised to issue it in the vernacular to all schoolmasters to secure their co-operation in all efforts so directed. A small book on "Village Sanitation" has moreover been written to suit the condition of the province, and it is hoped that its issue to schoolmasters, policemen, and vaccinators will lead to the dissemination of elementary knowledge among them, and so amongst those with whom they come in contact.

Phases of school hygiene that have been of the most interest in the past few years have been the movement in America to abolish the common drinking cup, the provision of better equipments for the elimination of dust and dirt, and the installation of more hygienic school furniture. Provision for the elimination of dust and dirt are to be found in the form of moist cloths and dust-absorbing compounds for sweeping, etc. By these means the dust and dirt are entirely removed instead of merely stirred up by the old-fashioned broom and feather duster.

The ideal of school hygiene as promulgated in England and America is a grand one, though it is not possible to follow that ideal in India for the present. But Government may be pleased to build some model school houses in Presidency towns as an experimental measure strictly on the principles of School hygiene. The American and English ideal will be reached gradually as education advances and the circumstances of India improve. Read at the *Third All-India Sanitary Conference.*

Meals in Father's Absence

BY GERTRUDE HOCKRIDGE

SOMETIMES the children unconsciously give the mother a pointer on some of the failings of home life. A little fellow living next door to us so openly rejoiced when his father, who had been absent all of each day for nearly a week, was to be at home for dinner, that his mother questioned him about it.

"Well, you see," he explained, "we do have good dinners when papa's home. I'm awfully hungry for something good."

His mother looked at the neat pile of sewing that she had worked at so steadily while her husband had been absent all through the daylight hours, and then she thought of the lunches so easily picked up and so hastily eaten, too, and she thought of the general irritability and nervousness of her three little ones.

She, herself, had grown tired and nervous, but she laid that to the too steady plying of the needle. The little folks—was it possible that they really had suffered for nourishment in a home of plenty? She resolved always to cook something tasty and nourishing for the children even when they were the only company that she had for dinner.

I wonder how often we mothers are to blame for the afternoon headache in the schoolroom that is attributed to impure air. It is so easy when the husband and father is absent, to sit down to a lunch of bread and jelly and so gain time for some big piece of work planned for the day. Then, too, if we are alone for a week with the children, what a chance to save on the table expenses for that extra bit of furniture or some other household article!

We are apt to think that the children do not notice such things, but they are just as appreciative of a good dinner as grownups are.

It is false economy. When we are tempted to have an easy, picked-up dinner because father is absent, just let us remember that little folks, who use up so much energy in growth, need nourishment even more than the elders.

Diseases and Their Peculiarities

Hookworm Disease

Its Spread, Prevention and Cure.

We have seen how each of the female hookworms living in the intestine deposits hundreds—often from twelve to fifteen hundred—of eggs daily; that these eggs do not hatch while they remain in the bowel, but, after they have passed out on the soil, where there is moisture and warmth—but not too much—they hatch into larvae. Both the eggs and larvae are too small to be seen with the naked eye. The larvae remain invisible unless they can get into the intestine, which they may reach by being swallowed with food or by entering the skin, usually of the feet, there producing "ground itch" or "dew itch," and then making a long journey through the body until the intestine is reached.

When infected persons go from place to place they spread the infection. Suppose we have a school at A where there is no infection and the people are healthy and thrifty, and from this community the son and daughter of Mr. Jones visit the Smiths in the distant community of B, where 75 per cent. of the residents have hookworm disease and the soil is teeming with larvae, that is to say, there is heavy soil pollution. Neither the Smith nor the Jones family pays much attention to latrines, indeed there is much doubt if either has one, for the custom to deposit easement in the open fields prevails and this allows the waste to spread freely through the soil. The sun is warm, and the Jones' children go barefoot and contract "ground itch," and they eat strawberries and plums which have been on the ground. By the time their visit is over they have become infected with grown hookworms. Returning, they begin to pollute the soil at their home. The other members of the Jones' family get the infection, and by the end of the hot season they are all becoming pale and puny The school at A opens. The Jones' children though not in their usual health, go to school. The school has not been provided with latrines. The need of them was not felt. The boys deposited their easement in the open fields. The soil around the school becomes heavily polluted and a centre for spreading the disease from one family to another. Soon the community has hookworm disease. The people become sick, backward, lazy, poverty-stricken and trifling. Had there been sanitary latrines in use by all the people, the disease would have been mild.

Much of the disease can be prevented by wearing shoes. The bare-footed individual is a great gatherer of hookworms. But the really effective protection from the disease is to be found in clean soil, and that can be secured when sanitary latrines are constructed and regularly used by all the people. Even though those persons now infected should refuse treatment, but could be required to use sanitary latrines, hookworm countries in a few years would be freed from the disease.

The common pollution of the ground must be stopped. The custom of using the open field for easement purposes and allowing the deposit to be spread over the soil by rains, pigs, and chickens, or carried by flies to the house, must be abolished and the sanitary latrine used, the essentials of which are that it have a water-tight, fly-screened receptacle, and that the contents be disposed of in a sanitary way, by burning, or burying away from and below the water supply. Human excrement should not be used as a fertilizer unless thoroughly treated under competent

direction; otherwise it may carry hookworms to fruit and vegetables.

How Hookworm Disease is Cured

Hookworm disease is usually treated with Epsom salts, and with powdered thymol given in capsules. The object of the Epsom salts is to free the intestine from mucus or other substances surrounding the hookworms and protecting them from the action of the thymol. The patient should take little or no supper on the evening before the thymol is to be administered. As early at night as is convenient he should take a dose of Epsom salts. The next morning as early as the salts have acted, half the number of capsules of thymol prescribed for the whole treatment should be taken. Two hours later the remaining capsules should be taken. Two hours after the second dose of thymol, another dose of Epsom salts should be taken, which will expel the hookworms that have been forced to loosen their hold on the intestinal wall by the action of the thymol, and will also get rid of the excess of thymol before it has had time to produce any harmful effects on the patient. Nothing should be eaten on the day the capsules are taken until the final dose of Epsom salt has acted well. A litttle water or strong coffee, *without* milk should alone be allowed.

As alcohol and oils dissolve thymol, making it actively poisonous to the patient, the use of them in any form would be exceedingly dangerous. Gravy, butter, milk, all alcoholic drinks and patent medicines, which generally contain alcohol, should be forbidden on the evening before and on the day of the treatment. Moreover, as many hookworm patients have dilated stomachs which do not readilly empty themselves and it is important that the thymol reach the small intestine at once, the patient should lie on the right side for at least half an hour after taking each dose of thymol.

When a microscopic examination is not possible, the feces expelled by each treatment can be examined for hookworms in the manner already described. When no more worms are seen, one extra treatment for good measure should be given.

CARIOUS TEETH

Statistics of the London County Council show percentages of carious teeth among school children are as follows: Entrants (that is very young children), boys 10.3, girls 10.1; children between 8 and 9, boys 17, girls 16.5; between 11 and 12, boys 12.9, girls 11.8. The increase during what may be described middle school age is ascribed to the fact that milk-teeth are then being changed for the permanent. An attempt is made to classify the percentages of bad teeth according to social condition. About 39 per cent. of the children from well-to-do homes have defective teeth, as against 27 per cent. from very poor homes. This is accounted for by the fact that the coarser food eaten by the poorer children gives their teeth more work, and hence keeps them clean and strong. It is also suggested that the poor are able to give their children fewer sweets, and only those of the cheap or boiled-sugar variety. These sweets break up clean in the mouth, whereas the caramels and chocolates eaten by better-off boys and girls tend to cling round the teeth and form a nidus of fermentation. Writing on this subject, Dr. Sims Wallace, late dental surgeon to the London Hospital, states that there are in this country about 21,000,000 teeth in a state of ruin through eating sweets, and urges the adoption of a diet containing farinaceous food in a form which will stimulate mastication, as brown bread, and also the eating of fresh fruit at the conclusion of a meal. By means of the fruit the teeth are cleansed. The best fruit for

this purpose is probably the apple, which, if eaten at the end of a meal, leaves the mouth fresh and physiologically clean.—*Selected.*

SENSIBLE DIET

To keep warm and give energy for work, Fisk advises to eat energy or fuel foods, potatoes, bread, cereals, corn bread, syrup and other sugars. To keep muscles and organs in repair, eat a limited and fixed amount of repair foods, eggs, nuts, peas, beans and lentils. Do not increase the repair foods with increase in work or exposure to cold; increase the fuel foods for further energy.

Eat fruit every day. Tinned fruits are good. Cooked fruit is often better than dubious fresh fruit, but some fresh fruit is essential. Eat fresh, green vegetables whenever you can get them. Thoroughly wash all raw foods. Eat some bulky vegetables of low food value, like carrots, parsnips, spinach, turnip, squash and cabbage to stimulate the bowels, and give flavour to the diet and prevent overnourishment. Eat slowly and taste your food well and it will slide down at the proper time. Do not nibble your food timorously; eat it boldly and confidently. A glass or two of water at meals is not harmful if you do not wash your food down with it. Do not let anyone bring a grouch to the dinner table; it will upset all the food values.

First, last and all the time, be moderate; avoid overnourishment and overweight. Restrict your fuel foods and burn up your own fat if you are tending toward stoutness.

—*Journal A. M. A.*

THE ASSORPTION OF WOOD ALCOHOL THROUGH THF LUNGS

The increasing use of wood alcohol in the industries and the growing appreciation of the toxicity of the substance, involving possibilities of harm far greater than the behaviour of the closely related grain spirits, ethyl alcohol, would lead one to suspect, have given the impetus to extensive physiologic investigations. To some of these, notably the experiments of Voltz and Dietrich, we have referred in the past. Usually the study of the effects of methyl alcohol has been confined to conditions in which it has been introduced into the organism by way of the stomach. In some of the industries, particularly those in which denatured alcohol containing the methylated spirits are employed, the possibility of absorption of vapours of wood alcohol through the respiratory passage and lungs must be reckoned with. A very recent investigation with this point in view, by Loewy and von der Heide at the Royal Agricultural College in Berlin, has disclosed the surprising fact that quantities of methyl alcohol as small as 0.2 per cent. in the inspired air may lead to absorption of the product into the body in not inconsiderable amounts. The absorption is slow, so that some time may elapse before the organism is "saturated" with the alcohol. Somewhat unexpected is the fact that, under comparable conditions fat animals take up decidedly less wood alcohol exhibited as vapour admixed with air than do lean subjects. This is due to the poor solubility of methyl alcohol in fats and lipoids, a fact demonstrated by the German investigators contrary to the current beliefs of the relatively ready solubility of the lower alcohols in fats and fat-like substances.—*Journal of the American Medical Association.*

OVEREATING A CAUSE OF SICKNESS

Faber is convinced that many of the morbid conditions credited to the "uric acid-diathesis" are in reality merely the effects of eating too much either at the time or previously. His list of 283 corpulent and 364 not corpulent patients shows how chronic rheumatism, lumbago, varices and constipation are far more prevalent among the corpulent. The combination of rheumatism and nervous symptoms in the corpulent is specially frequent. Comparison of mortality of the corpulent shows a much higher mortality from heart and kidney disease and apoplexy. This may signify that the corpulent have less resisting power. But his main argument is the benefit which follows restriction of the diet. Rheumatism, neuralgia, etc., are liable to show prompt and persisting improvement when the diet is restricted so that the weight is reduced. Chronic rheumatism, refractory to heat, baths, massage and drugs may yield promptly and permanently when a few pounds of fat have been thrown off and it may return when the patient over-eats again. He found the blood-pressure unusually high in thirteen of fifteen corpulent patients; it ran up to 220 in two. Restriction of the diet alone may bring a blood-pressure down to normal as the patient throws off superfluous flesh. The latter is not the cause of the rheumatism, etc., but both are due to over-eating.—*Selected.*

FAT ABSORPTION IN THE STOMACH

Two investigators (*American Journal of Physiology*, Jan. 1, 1913) give additional proof that at least in certain mammals, fat is absorbed by the walls of the stomach.

Physical Culture and School Children

CARL EASTON WILLIAMS

ARE parents generally neglectful of the physical welfare of their children? I believe that, in too many instances, they are. They will not hesitate to send for the doctor when their day-to day neglect has culminated in sickness, and they will not hesitate to expect the doctor quickly to undo, with supposedly magic pills and potions, the results of weeks and months of improper feeding and unhealthful conditions. But before the child is taken sick and after he recovers, parents generally do not take much trouble to study intelligently into the means by which their children may be made as strong and rugged and enduring as it is possible for any animal, human or otherwise, to become. And yet that is just one of the urgent duties of every parent.

For a long time men and women have realized the importance of education. They want their children to be mentally well equipped for the battle of life. They seem to overlook the physical equipment. But childhood is also a time for building a physical foundation for the great life struggle. Every child is entitled to a sound inheritance first of all, then proper care during infancy, and finally that training in childhood which will permit him to grow up with an iron constitution, instead of with the delicate, neurasthenic condition that we see so much on every side.

Some children need special physical training far more than others. The robust, active child, properly fed, can even be left pretty much to himself from a physical culture standpoint; for he will naturally turn to vigorous outdoor pastimes, getting about all the exercise he needs. But the "mental" type of child, of a studious disposition, always interested in books and pictures, but physically quiet and inactive, should be taken in hand and encouraged to play the open-air games, and to take a certain amount of special, systematic exercise every day. Of course this often seems to be a great bother to the busy parent; but people are always prone to fancy that they have no time for such things, even when they can find two or three hours a day to give to the endless trivialities of the daily paper, for playing bridge, or other such highly important (?) matters.

Especially does all this apply in the case of the nervous child; for this nervousness is invariably a manifestation of a deranged state of health. Particularly if a child does not sleep well, has little appetite, and is fussy about his food (O, we have all seen such youngsters!) he needs plenty of exercise and open-air life. There is a close relation between exercise, appetite, and sleep. Plenty of exercise will develop an appetite in any one, of any age, while healthy muscular fatigue is just the one thing that will induce sound, restful sleep. And it will usually be found that the child who gets plenty of sleep will eat much more heartily than the one who does not, and will make good use of what he eats.

Now, there is no question that plenty of ordinary play, if it is active, is the most

satisfactory and beneficial form of exercise, and especially if it is outdoors. The ideal programme for any child, as for any man or woman, would be a complete outdoor life, with outdoor sleeping and outdoor school accommodations. But if we cannot realize the ideal, we should approach it as nearly as possible. And in addition to this spontaneous play, children of the quiet and studious types would benefit by a certain amount of systematic training, especially where there are physical defects or special week parts that need development. In such cases there is nothing that can take the place of intelligent training, even if it is not for more than five minutes a day, though of course whatever time is necessary should be given. It is easy to correct ordinary defects in childhood, and very difficult or impossible in adult life; while it is also easy to develop such defects in childhood by wrong sitting, carelessness in standing, and neglect of strength-building measures. It is true that some attention is now being given to school hygiene by the school authorities themselves, but even with their best intentions they cannot be expected to overcome the results of the apathy of parents.

Dr. Oscar H. Allis, in a paper read to the American Orthopedic Association meeting at Philadelphia in June, said: "It is a hygienic crime to send children to school before the age of ten years. Under that age the fixed sitting position at the school desk, with its strain on some muscles and drag on the delicate spinal vertebræ, often causes serious spinal curvature." This seems like a rather extreme statement, and yet it comes from one whose specialty has demanded a close study of that whereof he speaks. The average parent does not know much about spinal curvature, but certainly every one knows a little something about the tendencies toward round shoulders that have been noted ever since children have sat behind desks in school-rooms. And since we are not prepared to keep our children out of school until they are ten years old, as this eminent physician suggests, it is all the more necessary to counteract the deforming tendencies of school seats and desks by appropriate physical culture. "Often causes serious spinal curvature," says the doctor. Why not always?—Because the stronger children can stand even this abuse without harm. The remedy is to make all the children strong, which is merely a matter of training.

The corrective or preventive treatment in cases where the spine is concerned, involves exercise for strengthening and stretching the back in particular, and the building up of the whole body in general. I need not describe any special exercises here, for any good system of setting-up exercises or calisthenics contains the necessary movements. All arm movements which bring the shoulders back and expand the chest, those which stretch the arms high above the head and those general movements which bend the body at the waist backward and forward and from side to side, as well as turning or twisting at the waist, will be of special value; but remember that the entire body should be strengthened and built up as well. One can never acquire a correct posture by means of back exercises alone; the body as a whole must be strong and full of energy in order that the carriage may be what it should be. And, once strong, it is a mere matter of habit.

It is true that many of the schools at the present time require a little calisthenic work of the pupils during school hours, but parents are not justified in depending upon that. The benefit of the exercise will depend largely upon the spirit and energy with which one enters into it; and the parent has no means of knowing that his child executes the school drill with such energy and good will that it will answer all his requirements. The only way to be sure of it is to have a little drill at home, perhaps using a very light wooden dumb-bell to make it look like business, and laying stress upon the manner in which each movement is performed. The

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best plan is to have the whole family go through a little drill together. It will delight the young children and do every one good. Tell them that it is the setting-up exercises that make the soldier strong and a good fighter.

I have sometimes heard a mother caution her child not to run too much. That kind of parent should do a little running on her own account. The world would take on a new meaning for her if she would do so. There is no danger of a child's overdoing this kind of thing. Older boys might possibly overexert themselves in the enthusiasm of some game, but the younger child can be trusted to take care of himself through the force of his own instincts. He is guided almost automatically by his sense of fatigue. So long as it is fun, he keeps it up. When he gets tired and it is no longer fun, he stops. He does not force himself beyond the healthful limits of his exercise, as an older person may possibly be misled to do in some form of competition. And so the more he romps and runs and wrestles, the better.

As the children grow older, from childhood into boyhood and girlhood, the same encouragement toward healthful, natural play is desired, although the organized activity of the playground may now be a more important factor. Where girls are concerned, the teaching of the various folk dances is one of the most commendable movements of recent years. These folk dances have been evolved by the different nationalities which they represent through all the centuries leading back to prehistoric times, and each may be said to typify the spirit and temperament of the race to which it belongs. The folk dances are a very different thing from the dances of the conventional ballroom. They offer real exercise of a kind that makes for physical development, erect carriage, and grace of movement in all other respects. They teach co-ordination.

The practice of athletics among the boys, under the supervision of the Public Schools Athletic League, is another commendable thing, and should have the support of all parents. If the contests are sufficiently limited in character they will not hurt any boy who is properly trained. For instance, two or three heats of a fifty-yard dash will not prove too much for any one, especially if that is all that he does during the afternoon. It is a mistake, however, for a schoolboy to run three heats in a hundred-yard dash, and

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then indulge in several other events the same afternoon. It is this kind of thing that is to be guarded against. Again, young boys should not attempt distance races of too great length. They should learn to go into the game for the sport, and not to make records. What is needed is the play spirit, and not the competitive spirit purely, in these games. The advice of the parent in these matters, and also his interest, is very helpful.

On the whole, school athletics are invaluable for the lessons they teach in connection with clean living, temperance, and self-control. The boy acquires an ideal of manly strength and health, and he learns that he cannot afford to smoke or keep late hours. I believe that athletics are the greatest foe in the world to tobacco and alcohol. Nothing else so impresses a boy as the cleanly habits of a Marathon runner or prize fighter, who has never in his life touched tobacco, beer, or whisky, and who does not even drink tea. Then there is the lesson of training. The boy learns that the race is not won by the efforts made in running it, but by the training and preparation for it during the preceding weeks. It is really won or lost by his past life, of which the training is only a part. It is a question of preparedness. And so he learns, in the most practical way, the lessons of temperance and self-restraint.

Perhaps the biggest mistake made by many parents is forcing a child through school too fast. It is little less than a parental crime to induce a child to "skip a grade," considering the extra study and strain required. If there is to be anything extra, let it not be study. Let it be extra sunshine, extra sleep, extra baseball, extra gardening, extra kite flying, extra fishing in summer, extra games of tag and prisoner's goal. There is too much home study now, without adding to it. No growing child or youth should be permitted, much less required, to sit up at night to study. The school work should be confined to the hours spent in school, and the rest of the time should be devoted to the welfare of the body. When the school seems to demand too much of this extra home study, as it commonly does, I believe it is a matter for the parent to deal with. I feel very strongly that it is the duty of the parent to protect his own against the organized, impersonal demands of a system which takes little thought of life and health, but only of the great god "Curriculum."

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"BETTER to say 'This one thing I do,' than, 'These forty things I dabble in.'"

SOME women are so busy housekeeping they have no time for home making.

YOU cannot dream yourself into a character; you must hammer and forge one.—*Foundc.*

RUSSIA ORGANIZING A CORPS FOR CHOLERA SERVICE

THE Russian authorities are considering a proposal to establish a corps for cholera service to consist of 10 medical men and 20 nurses.

MEDICAL SERVICE IN ENGLAND

AS many practitioners and panel physicians have taken places in military service, arrangements are being made to fill their places temporarily and conserve their practices during their absence.

MEDICAL REGULATIONS IN KOREA

THE American consul general at Seoul has forwarded to the Bureau of Foreign and Domestic Commerce, Washington, a translated copy of the recent orders of the government of Chosen for the control of physicians, dentists, Korean old-style physicians and supernumerary medical advisers or public health officers. These regulations became effective the first of the year.

JEWELS OF THOUGHT

"ACTIVITY may lead to evil, but inactivity never leads to good."

"The keenest critic of him who *can* is he who *can't*."

"Conceit may puff a man up, but it can never prop him up."

"Charity giveth itself rich, covetousness hoardeth itself poor."

"It is much easier to be critical than to be correct."

"Struggles, not attainments, measure character."

COMPULSORY ANTITYPHOID VACCINATION OF ENGLISH ARMY URGED

SIR W. B. LEISHMAN has published a letter urging compulsory antityphoid vaccination for the British army and pointing to the American success during the mobilization in Texas. As it is impossible to vaccinate all the recruits en masse, Lord Kitchener has expressed a wish that all may be vaccinated as rapidly as occasion offers. Antityphoid vaccine is supplied on requisition from the Base Depot of Medical Stores, and medical officers are urged to seize every opportunity to increase the number of the inoculated.

ALCOHOL AND TUBERCULOSIS

At a recent conference in Sheffield, England, Dr. Edgar Collis, one of the home-office experts, said, speaking of consumption: "Above all classes of the community as victims of the disease are those addicted to alcohol. Not only does alcohol have this effect on any one, but recent experiments have demonstrated that it also impairs the natural means by which dust is expelled from the air passages of the lungs. Therefore alcohol is doubly harmful to those who inhale injurious dust; it allows the dust to enter more easily, and at the same time it is in other ways making the individual less fit to resist infection."

PHYSICAL CULTURE AND SCHOOL CHILDREN

(Concluded from Page 372)

The period of childhood and youth is a time for building the human constitution, not for wrecking it. That can easily enough be accomplished later. Especially, every parent should consider the physiological requirements of adolescence, and should permit no crowding or straining with school work at this time. It is even better to take a girl out of school for half a year, if she is delicate, than to have her undergo too much of a strain at this time.

I could say much more, but I think I have said enough. A word to the wise is said to be sufficient. The school hygiene movement promises well. Some day the school authorities are going to give the same attention to the physical welfare of the child that they have been giving to his mental development; but until that time, the parent may do what is necessary by means of intelligent physical culture and a close watch over the physical condition and growth of his children.

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