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AN AFTERNOON IN AUTUMN

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The Editor's Corner

YESTERDAY is dead, forget it.

Today is here, use it.

Tomorrow never comes.

Don't worry."

FRENCH SOLDIERS SLEEPING IN UNDERGROUND BARRACKS

The Truth About the Milk We Drink

By Philip B. Hawk, Ph. D.

Professor of Physiological Chemistry of the Jefferson Medical College, Philadelphia, Pennsylvania, in the *Ladies' Home Journal*

(Up to now nearly all that we have known of what really happens to what we eat when the food reaches the human stomach has been learned through the use of the stomach pump, X-ray examinations, or from experiments made on the stomachs of dogs. A direct method, however, has recently been developed in the Department of Physiological Chemistry of the Jefferson Medical College, of Philadelphia, devised by Dr. Martin E. Rehfuss, of Professor Hawk's staff, whereby it is now made possible to follow the transformations of the food that we eat, as it is actually digested by the human stomach, at every stage of the digestion.)

CONTAINING, as it does, the three fundamental elements in nutrition —protein, fat, and sugar—in addition to mineral matter and water in such proportion as to render it a very acceptable article of diet, milk is the most perfect food furnished by nature, and a big glass of it is equivalent in food value to a quarter of a pound of fleshmeat. In fact an eminent authority has said that a glass of milk, taken over and above a man's ordinary food requirements each day, is sufficient to produce in one year's time a gain of twenty-four pounds in weight.

Of rather more importance than the use of milk in the dietary of the normal adult is its use in the feeding of infants and invalids. It is a difficult task satisfactorily to rear the young of one species upon the milk of a totally different species. The physician faces this task when he is forced to provide artificial food for his little patients. Even when modified according to the best expert standards the milk of the cow all too often falls far short of furnishing proper food for the infant.

Records show that the breast-fed babe begins his race for a healthy, happy life with much brighter prospects of ultimate success than does his bottle-fed competitor. In our investigations on milk we were fortunate in securing the cooperation of a man who possessed the unique ability to furnish samples of stomach contents at will without recourse to stomach tubes or pumps—that is, by regurgitation. This unique experimental method, added to our other experimental features, including the use of the Rehfuss tube, has enabled us to arrive at very authentic conclusions regarding the practical points which surround the action of milk in the human stomach. Our conclusions are set forth in the answers to the following questions. The first question is:

Is it True That Milk Curdles When it Enters the Stomach?

Yes! The fluid (gastric juice) present in the stomach contains a substance (rennin) which is classified as a ferment or enzyme and which acts upon the milk and forms curds from one of the constituents of the milk (casein). Our experiments show that this curd formation sometimes begins almost immediately after the milk reaches the stomach. The size and characteristic of the curds vary according to the source and composition of the milk and the length of time it has been in the stomach, and further variations may be produced by artificial means—such, for example, as boiling or the addition of certain chemicals.

In connection with our experiments we have made photographs which illustrate very nicely the different stages in milk

digestion. The initial junket-like mass soon gives place to definite curds of small size. The curds increase in size and are finally suspended in a clear straw-yellow fluid (whey.) These larger curds coalesce forming still larger curds, which finally digest and yield a turbid digestion mixture.

Does Drinking Milk Slowly Make it Easier to Digest?

The best current medical and scientific opinion tells us to "sip" our milk—that is to drink it very slowly. We are told that milk taken in this manner curdles in small curds in the stomach, and that these small curds are more easily digested than are the large curds which are formed if we drink our milk rapidly. This line of reasoning sounds logical enough, but unfortunately it is wholly false. Our experiments have clearly demonstrated that curds, formed in the stomach when the milk is drunk slowly, are fully as large as those which follow rapid milk drinking. This point was nicely shown by a test upon our regurgitator. On one day he drank a pint of milk in ten seconds and on the next day at the same hour he drank the same volume of milk in ten minutes. In each instance we examined the contents of his stomach at the end of half an hour. Not only were the curds larger when the milk was drunk slowly, but the total weight of the combined curds was greater than when the milk was passed into the stomach with maximum speed.

Is Boiled Milk More Difficult to Digest Than Raw Milk?

The question of the relative efficiency of boiled and raw milk as food, particularly in infant feeding, has been actively discussed for years without arriving at an answer which was acceptable to all concerned. However, the bulk of the best recent experimental evidence is distinctly favourable to the boiled product. In our own investigation we have shown that boiled milk forms much smaller curds in the stomach than does raw milk. As a result the boiled milk digests more rapidly, and the material leaves the stomach sooner than in the case of raw milk. The curds of pasteurized milk are intermediate in character between those of boiled and those of raw milk, but more nearly resemble those of raw milk.

If one examines the curds formed from raw whole cow's milk in the human stomach, one will find that one hour after the milk is drunk the curds are fully as large as a man's thumb. These curds may coalesce and at a later stage in disgestion enormous, rubber-like curds, at least three or four inches in length and one inch in diameter, may be regurgitated. Under the same conditions the curds of the boiled milk are seldom larger than small peas. Moreover, it will be noted that the raw-milk curds are always firm in character and white in color, whereas the curds of the boiled milk are always flaky and of a yellow tint. When we awake to the real significance of these observations we see at once that boiled cow's milk is intrinsically a different food from the raw product. When one examines the photographs of the different stages in the digestion of the two types of milk, this difference is still further impressed.

It has been shown that milk contains growth-accessory substances or so-called "vitamines," and that these substances which are important for growth, are not destroyed by boiling the milk. If milk be heated for one hour under a high pressure, there is a change in the casein of the milk such as to render it an inadequate food. However, milk which is to be used as a food is never so heated. Ordinarily not over five to ten minutes' boiling suffices. The milk used in our tests was boiled five minutes.

Since I have watched the regurgitation of enormous, indigestible, rubber-like

curds from raw cow's milk and have seen the small, soft, easily digestible curds of the boiled cow's milk, and the tiny, fluffy curds of mother's milk, it would be a sheer waste of time for anybody to try to convince me that an all-wise Providence ever intended that our babies should be fed a calf's diet. Raw cow's milk is the worst possible kind of milk a baby can be fed. Pasteurization makes a more desirable food, boiling still further aids in the preparation of the product, and certain definite "modification" may possibly aid still further, but the blue ribbon must always of necessity be awarded to mother's milk.

What Happens to Skim Milk in the Stomach?

We have learned that skim milk curdles much more rapidly than does whole milk and that the curd of the skim milk is tougher than the whole-milk curd. I have seen well-formed curds regurgitated in thirty seconds after the regurgitator had drunk a pint of skim milk, and in five minutes the curds had reached the size of a walnut. If the skim milk be boiled the curds are smaller, the maximum size being that of small kidney beans. It is an interesting fact that the curds of the boiled skim milk are larger and firmer than the curds of the boiled whole milk. This indicates that the fat in the whole milk encourages fine, soft-curd formation. These curds are consequently more quickly digested than are the firmer curds of the boiled skim milk. It is worthy of emphasis, however, that all forms of boiled milk, whether whole or skim, leave the stomach sooner than the raw whole milk.

What is the Difference in the Digestion of Cold and Hot Milk?

Practically no difference. There is a slight delay in the digestion of cold milk but in a few minutes the temperature is raised sufficiently to permit the rennin to act normally.

How Much Milk Can the Stomach Take Care of at One Time?

There are all sorts, sizes and shapes of human stomachs. The stomach of the normal adult is supposed to hold about a quart; but there are perfectly good stomachs that hold less, and just as many that hold more. Since this is true, each of us must learn by experience how much milk we can drink and properly digest.

It might be well to point out in connection with this fact that the stomach is not the only point in our anatomy where milk is digested. Every normal person has present in his or her bowel, a short distance below the stomach, another milk-curdling ferment (pancreatic rennin) which possesses the same ability to curdle milk as does the rennin in the stomach. In fact, as soon as any considerable quantity of milk is drunk some of it passes into the bowel in a fluid condition. The digestion of this portion of the milk is strictly in the hands of this second milk-curdling agent. In any event milk is 87 per cent water, and in a quart of milk we have to deal with only about three ounces of solids. The water is quickly absorbed from the bowel and excreted, leaving the relatively small amount of solids to undergo digestion. Milk thus serves us both as "solid food" and "drink."

Do Our Age and Weight Make a Difference in the Amount of Milk We Should Drink?

It is ordinarily customary to take the body weight into consideration when figuring a diet for any particular person. Of course this system is perfectly good, theoretically, but falls down woefully in practice when one meets a man of ninety pounds body weight who eats twice as much as his wife, notwithstanding the fact that she weighs, say, two hundred pounds. Milk is the natural food for the young, and the average child can satisfactorily take care of more milk "per pound of body weight" than can an old man, for

example. But milk is a good food, no matter how we look at it, and it would be better for some of us if we drank more milk and lowered our nonaqueous fluid intake in other directions.

How Does Mother's Milk Act in the Stomach?

Very soon after mother's milk enters the stomach it curdles under the influence of the substance called rennin, which we have already mentioned. The action of the rennin is the same as in the case of cow's milk, but there is a striking difference in the curds in the two cases. The fluid surrounding the curds in mother's milk, the so-called "whey," is very turbid in appearance, and is therefore in sharp contrast with the clear, straw-yellow whey of cow's milk.

Instead of the very large, tough, white curds so familiar to us in our study of cow's milk, we here meet with very tiny, soft, fluffy curds, which are yellowish in colour and easily digested.

Is Cream More Difficult to Digest Than Milk?

The presence of an excessive amount of fat in milk alters its digestion in two important ways. In the first place the fatty mixture leaves the stomach more slowly than usual, and in the second place, the character of the curd is different from the curd formed from ordinary milk. If we drink raw milk which contains about four per cent of fat, the large, hard, rubber-like curds already described will be formed. If we add enough cream to make twenty per cent of fat, these large, hard curds will not be in evidence, but in their place we will have a homogeneous, soft, curdy mass which digests without taking the form of individual curds. If we further increase the fat content to forty per cent, there is practically no curd formation—the only curds visible being of the "pin-point" variety.

Such preparations as twenty-per-cent and forty-per-cent cream, when taken in any considerable amount, do not form a very satisfactory diet for the average stomach.

What Other Facts Have You Discovered?

There is some evidence that milk digests better when eaten with bread or crackers.

The milk in cream soups, such as cream of celery, for example, is easier to digest than raw cow's milk but less easy than boiled milk. It would be fairly comparable to pasteurized milk.

If a small amount of salt is added to the milk it aids somewhat in the digestion of the milk. If a large amount of salt is added the milk will digest less satisfactorily.

Tobacco and Condiments

By V. L. Mann, M.D.

GREATEST of all curses of modern times is the deadly weed, tobacco. It is less than a hundred years since its introduction into the civilised world, yet in that short space of time it has conquered every nationality, and blighted and ruined the lives of millions of people.

Every pound of tobacco contains three hundred and eighty grains of poison; chiefest among these is nicotine, one of the most deadly poisons known to chemists. Scientists tell us that there is poison enough in a pound of tobacco to kill three hundred men, if administered in the proper manner. One tenth of a grain is sufficient to kill an animal the size of a dog.

In writing about tobacco, Dr. Elisha Harris says, "A single leaf of tobacco or a single cigar contains enough nicotine to destroy the life of the strongest man if it were introduced into the stomach or applied directly to the nerves and blood-vessels of the body. A few drops of the fresh juice of tobacco when applied to a wound or introduced into the stomach induces a fearful prostration of all the powers of life, if not death itself."

Tobacco does more injury to the human race than any other poison because it is more universally used. When comparing the harm which alcohol, opium, and tobacco cause to these who use them, undoubtedly tobacco should take the lead as the greatest of human destroyers, for its influence is the most deceptive. It is less violent, less noisy, less stupefying, less maudlin, and less offensive. It does not madden or murder. Its devotees do not drag along with such hollow eyes, such staggering gait. But tobacco is a deceiver. Its effect is soothing. It apparently helps to think, to act, and to live. It is social and genial. It can be carried about conveniently. It will not break nor spill like a bottle of liquor.

A man knows when he is drunk with alcohol or opium, but he does not know what nicotine is doing to him until its accumulated effects have made themselves permanent and he finds his blood thin and lifeless, his heart weak and irregular, his digestive functions inactive, his sleep broken, his energies sapped from his entire being, and his nervous system shattered.

The heart of the tobacco smoker is partially paralyzed. It is a well known fact that tobacco smoking causes cancer of the mouth. This habit is doing more to ruin boys and young men than anything else. Although the tobacco used in making cigarettes is of a milder sort, the method of inhaling the smoke into the lungs makes it much more injurious. Prof. Goodwin, of New York City, says "The boy who smokes, whether it be the cigarette or any other form, may bid adieu, to all hopes of scholarship. He can do next to nothing in the high-school grades."

It is getting to be quite common in European countries for the managers of large business firms, such as banks, manufactures, and railways to refuse too employ men who use liquor or tobacco in any form. A large manufacturing, chemist who employs hundreds of young men and boys, recently posted the following notice in their work shop:— "Believing that the smoking of tobacco is injurious to both mind and body, thereby unfitting young men for their work; therefore after this time we will not employ any young man under twenty-one years of age who smokes cigarettes." The director of two large railways said, "Cigarette smokers are unsafe. I would just as soon employ men from a mad-house to operate a railway train as to employ cigarette smokers."

Condiments

Condiments are substances which are not foods, but which are added to foods to impart flavour. Man is the only one of God's creatures who is unwilling to eat food as the creator has given it. Nature has given to all foods flavours which appeal to the undepraved appetite.

By the use of condiments, the nerves of taste become so benumbed that they are unable to detect the delicate flavours of the different kinds of foods, and to many persons they are wholly unknown. Chillies, pepper, mustard, cloves, ginger, nutmeg, vinegar, etc. are the condiments in common use.

Condiments add nothing to the value of food; they simply make it taste better. All condiments are harmful to the health of the body. They clog the liver and irritate all the digestive organs. When applied to the skin, they will blister. The mucous membrane of the stomach is inflamed by their use, and after they are taken into the blood, they circulate to the tissues and do much mischief. It is the function of the liver to expell these substances from the blood, and in consequence, diseases of the liver are almost universal.

Those who use condiments claim that their food will not digest if eaten without them. There is a good reason why this is true. Their stomachs have become so benumbed that unless they are goaded by these irritants they will not secrete sufficient gastric juice to perform the work of digestion. Condiments are to the stomach what a whip is to the back of a bullock—they urge on the work but do not add strength to pull the load.

The use of condiments causes gluttony and over-eating. Food that is highly seasoned creates an appetite for strong drink. The irritated inflamed condition of the alimentary canal, caused by such food, creates a craving for something stronger. All stimulants must be continually increased in quantity or they soon lose their effect. The same is true of the person who habitually takes some drug; to maintain the effect the dose must be increased.

An eminent author and physician has said, "Keep on stimulating the children, and the more you do so, the more they will desire, and the more they will need to be stimulated, until they will use foods and drinks that are more intensely stimulating. . . . . If we would have an end to drunkenness, we must stop breeding drunkards. Put a drunkard upon simple, healthful, nutritious food; give him proper rest; break up his habits of indulgence by placing him in pleasant and elevating associations; see that he takes no medicine that will increase the rapidity of his heart's action, and the man's appetite for liquor dies out of him."

Some Popular Humbugs Exposed

FROM the purely human standpoint patent medicines or quack remedies afford an almost pathetic insight into human failings. On the one hand the cupidity of the manufacturers of drugs who grow rich on the proceeds of their sales, and on the other hand we have the ignorance and foolishness of a public which seems almost to enjoy being duped and robbed. Not only do they do no good in themselves, and sometimes even harm, but they prevent the sick man or woman from coming to a doctor who might possibly give them relief or cure. A patient, for example, suffering from cancer, sees an advertisement in which it is claimed that a certain ointment or lotion will cure cancer with certainty. Most people have a dread of surgical operations, and the simple application of an ointment has a great appeal. The result is that the ointment is tried at just the period when an operation might be of avail. And when the patient, after failure of the vaunted

remedy, seeks the surgeon's advice it is only too often to be informed that the disease is now too far advanced to be operated on. Then again quack remedies may be a positive source of danger in that they claim, as some do, to prevent the spread of infection. In this connection the most disastrous are those for the cure of syphilis and gonorrhoea, the result being that the victims of those terrible diseases multiply, and the diseases spread without check.

We frequently find that the poorer classes are in the habit of spending money most lavishly in this direction. It is part of the fault of our social system which certainly renders it easier for a poor person to ask for a bottle of medicine over the counter than to go through a long wait at an overcrowded outpatient department of a large hospital. In India on the other hand, it is the educated or the semi-educated who are attracted towards patent medicines. I have known over and over again of cases in which patients or their relatives were willing to spend, and had already spent, considerable sums of money on these drugs. In many cases the money can be afforded, in other cases the sacrifice made is considerable. In either case the expenditure is unjustifiable. Probably all of you have seen advertised in the newspapers at one time or another an ointment known as Zam Buk. The claims made for Zam Buk are as follows:

"Zam Buk has proved itself to be unequalled for Cuts, Bruises, Burns, Scalds, Abrasions, Festering Sores, Old Wounds, Sprains, Dog Bites, Cat Scratches, Carbuncles, Colds, Chills, Raw Chin after Shaving, Freckles, Perspiring feet, Chilblains, Soft Corns, etc. Rubbed well into the part affected, Zam Buk gives relief from Rheumatism, Lumbago, Neuralgia and all kinds of Inflammation and Irritation."

The price of a box of it is 1s. 1½d. the estimated cost of the ingredients is ¼d. (or one pice). Even allowing for the cost of making, of box label, and retailer's profit, you can easily calculate the degree of profit which goes to the maker, and the degree to which the purchaser is swindled.

Clarke's World Famed Blood Mixture is another medicine which may be known to you. It makes claims to cure as follows:

"No matter what the symptoms may be, the real cause of a large proportion of all disease is bad blood. Clarke's World Famed Blood Mixture is not recommended to cure every disease; on the contrary, there are many that it will not cure; but it is a guaranteed cure for all blood diseases. It never fails to cure Scrofula, Cancerous Ulcers, Syphilis, Piles, Rheumatism, Gout, Dropsy, Sore Eyes, Eruption of the Skin, and Blood and Skin Diseases of every description." The price of the bottle is 2/9 (about Rs. 2) and according to the dose recommended this would last six days. The estimated cost of the ingredients is 1½d. or 6 pice. It contains as practically the only ingredient potassium iodide, the proportion bringing the amount up to about grs. iii to the dose. This amount, I may say, is well below the dose ordinarily prescribed.

Phosferine, another widely advertised tonic, costs ½d. per bottle, but the public is asked to pay 2/9 (Rs. 2.) It contains a minute quantity of quinine sulphate and sulphuric acid, and a somewhat larger amount of dilute phosphoric acid. The quantities are quite insufficient to be of any use as a tonic.

One could multiply examples indefinitely. But I have said enough to indicate the ridiculous claims made by the makers of patent medicines and the absurdly high prices charged for them—*Dr. Ruth Wilson in Nursing Journal of India.*

Result of Cinema

"Found at night lying face downwards, and securely tied by his wrists to a street lamp standard, an Ilford lad named Watling declared he had been attacked by strangers and robbed. He was uninjured, and his parents suggest that his morals have been vitiated by seeing crime pictures at the cinemas."

Sanitary Conference

It has been arranged to hold a Sanitary Conference in Karachi from October 15th to 18th. The conference will take the form of a series of popular demonstrations on sanitary matters by means of lectures illustrated by magic lantern slides and cinematograph films. The lecturers will be men recognised as authorities on the subjects with which they will be dealing, which will include such important questions as malaria, tuberculosis, cholera, rats and flies in relation to plague, method of rat destruction, yellow fever danger, insect carriers of disease, and public health.

A Drunkard's Children

If a husband and wife are addicted to drinking alcohol, are the children necessarily affected? is an oft-mooted question. Recently some experiments were made to see how the theory actually worked out, and here are the results:

Three families, with 20 children, were taken where the fathers were drunkards. Of these 20 children:

4 died from general weakness;
3 died of convulsions before 1 month old;
4 were feeble-minded;
1 was an epileptic;
7 were normal.

Now for the other side of the picture. 10 families were taken in the same station of life. There were 62 children. Neither father nor mother drank alcoholic liquors.

3 children died from general weakness;
3 from intestinal troubles;
2 from nervous affections;
2 were feeble-minded;
2 were malformed;
50 were normal.

Adulterated Ghee

Because of adulterating ghee with animal fats and thereby causing the thousands of Hindus in Calcutta much trouble and expense in purification ceremonies the panchayat (religious tribunal) passed the following sentences:—

"Two partners of a big firm who are said to be worth fifty lakhs of rupees, were outcasted for one year and ordered to pay a fine of one lakh of rupees towards purchasing grazing ground for cattle; and if within one month they fail to pay they will be excommunicated for good. The manager of the same firm was also outcasted for one year and fined Rs. 7,500. In another firm, father and son were both outcasted for one year and fined Rs. 25,000, failing which they will be outcasted for good, while the manager was excommunicated for one year. A Brahmin dealer was outcasted for two years and ordered to pay a fine of

Rs. 1,000, while a dealer belonging to the Maheswari community was ostracised for good."

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.

Petrol a Good Emergency Disinfectant

The value of gasoline in cleaning wounds having been thoroughly tested on the battlefield. Dr. Dorothy Childs urges that an eight-ounce bottle of petrol 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 petrol, then painting it with tincture of iodine, using a small wad of absorbent cotton.

Canadian Verdict on Chiropractice

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."

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.

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.

To Control Yellow Fever

The Cuban government and the Rockefeller Foundation of the United States, through the International Health Commission, are cooperating 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.

TEMPERANCE

Economic Reasons for Prohibition

By Dr. Harold H. Mann, of Bombay

Grand Chief Templar of the Grand Lodge of India

(Reported stenographically, especially for Herald of Health, from a lecture given at Lucknow Christian College Hall, September 12, 1917).

I FEEL the greatest pleasure in being here tonight for two reasons. The first is that I see here before me so many students, young men and women who are the hope of the world. Here before us is enough material to move India in any direction.

The second reason I am glad to be here is because I find pleasure in taking part in the Lucknow Federation movement. I was the first president of the first temperance federation on the Bombay side, and when I see the temperance forces being organized throughout the country I feel that our first society was in some measure responsible for the ones which have followed. I feel then that this is a place where I like to be.

I say so for another reason. I am a hater of drink. There are few families who have more haters of drink than mine. My father was a boy when he signed the pledge, and all his boys grew up as haters of strong drink. I am only too pleased to stand here as an advocate of temperance.

I feel I can speak to this audience as to those who are all friends of temperance. For this reason I shall not speak of the reasons for temperance as I would to a drunkard. What I want is that every man and woman shall see the necessity for temperance and so range themselves on the side of temperance.

I say this at the present time because I think this war has made a very great difference to the world, and will make still more. In looking at the war, the most terrible fact is the enormous waste going on in every country. That waste is entirely beyond our ideas. Can we think what it means that 5 thousand million pounds sterling have been sunk already? Consider how much that means in crores of rupees. One third of this is absolutely gone. It is exploded into thin air. It is absolutely gone from the world forever. In England there is only 17 thousand million sterling, in the whole empire there is only 30 thousand million sterling. 5 thousand million of this is gone already; one third is gone forever.

25 million people are either dead or disfigured, not including the millions already dead of starvation. One third of the world's shipping is gone to the bottom of the sea. The worst aspect of it all is the absolute waste.

What strikes me is, What is going to happen afterwards. At the present time the world is like a spendthrift who has come into an enormous fortune and does not know how to use it. A man in Poona a few years ago fell heir to several lakhs of rupees. He got into bad company and worse habits and now his property is all gone and he has to depend on charity. This is the way the world is going. Five years ago the world had an enormous fortune. But when there is no more to spend of that fortune the people in the world will be on the verge of starvation. The standard of the world will go down. The condition in ten years time will be something beyond our speculation to-day. The time is coming when we shall have to economise in clothing and in food, and every-

thing else will have to go very much further than now. The world will have to go on shorter commons than ever before.

"ONE THIRD IS EXPLODED INTO THIN AIR"
ENGLISH ARTILLERY IN ACTION

What was the worst time for England? It was not in the middle ages, it was not after the civil wars, the London fire, or the Great Plague. It was in 1820, five years after the greatest victory England had ever known. We shall get that ten times worse after this war.

Well, what has this to do with temperance? It is this: We shall have to economise our living. The first things on which we should economise are those on which we are wasting at present. Our food, clothing, and everything else will have to be curtailed. We should look around now and see where we are wasting.

First, resources. The resources of the great countries will be low. The resources of India will be much more limited. We must see that these resources are put to their best advantage.

The people in all countries of the world will be limited. 25 million of them are lost already. There will be a loss of millions more. We must economise and use to the best advantage all who are left. Nothing that makes a man of less value must be allowed.

If I can show you to-night that alcohol destroys efficiency and means the shortening of the life of men and women, then it seems to me that every person must not only be a teetotaler but must also enter the fray against alcohol in every form.

Let me give you one or two examples of the reduction of resources. 30 million barrels of beer were brewed in England yearly before the war. It requires one bushel of grain for each barrel of beer. Now counting that five bushels of grain will keep one person in bread for one year, then that means that six million people could be fed with the grain that goes into beer. The population of the United Kingdom is only 40 millions. So enough grain is being

"TWENTY-FIVE MILLION DEAD OR DISFIGURED"

"WE MUST STOP THE WASTE OF LIFE"

turned into strong drink to feed nearly one sixth of the whole population for one year.

Forty years ago people laughed at prohibition, but they do not laugh now. Forty years ago the doctors said that beer made one strong. Doctors do not say that now. If one says so now it proves that he is hopelessly out of date. (Laughter)

I remember well when I first came out to India in 1900, I heard much about the terrible climate and the necessity of taking something to offset it effects. The first night I landed I took dinner with a party of prominent Calcutta merchants. When we sat down to dinner I was asked what I would have to drink. According to my usual custom I said, "Soda water." A peculiar smile passed over the faces of the Calcutta merchants. One turned to me and said, "Well if you stay in this country you will have to drink something besides soda water, or you wont be alive in six months." I am glad to say, Mr. Chairman, ladies and gentlemen, that I am still alive after seventeen years and a half in India. (Laughter and applause)

To put it at the highest value there is not more food in beer than about one-tenth of the original value at the most. 30 million barrels were brewed yearly before the war. Let us say that amount was enough to keep one sixth of the United Kingdom in bread. Double that amount for the spirits and other liquors and we have enough to keep one-third of the British Isles. When you add to that the quantities consumed by the other countries of Europe and of the world, then you can see the enormous waste. One tenth only of that represents any food. Ladies and gentlemen, *we* must stop all that.

As another illustration, remember that nearly every country in the world joined prohibition at the beginning of the war. Russia, other countries of Europe, New Zealand, America. England alone, I am ashamed to say, did not. She went on as before. Not until the war had gone on for some time did her people begin to look around: but even this year, after three years of war is past, they have only reduced from 30 million barrels to 10 million, an amount still sufficient to keep one-twelfth the whole population of the British Isles in grain for a whole year.

The liquor interests have been so powerful as to make them increase even that amount. Now, more than half of the pre-war amount is being made. England will see the waste in time, but now she is losing out in the race for temperance.

We must also stop the waste of life. Alcohol means waste of efficiency and life. What I mean by waste of efficiency is this. Every man in the future must be able to do his best and do more work than before. The young men and women here must do more work than ever before. The individual for many years must be at the top notch of efficiency until this terrible load of war is removed. Drink does not increase efficiency. Many have said they can only work when they have liquor. This led to exact tests as to what strong drink does do.

One single peg a day appreciably lowers the efficiency of a man and shortens his life.

We *know*, as far as any scientific fact can be known, that it shortens life. I am speaking now of the man who takes this amount as many men in India do. Liquor means a waste of resources, waste of efficiency, and waste in the length of life. Can we afford to allow it? No. We cannot. We must save in every way possible when after the war all will be poverty stricken, when a large number of people will not get enough to eat, when many will be starving. This applies to India, England, and Europe.

Mere being a teetotaler is not enough. Not only must we be temperate but we must not give it to others. Our guests must realize that no liquor will be served in our houses. I speak this particularly to our European members who are living here in India. I know in my position in Bombay I often find it difficult to do this; yet no one has ever gotten liquor in my house. If I had not taken that stand before, I would take that stand to-night. The condition of the world, of India, is going to be so difficult after the war that I am bound to do all I can to prevent the waste of men, efficiency and life.

As I look forward in the future and see India occupying a different position than it has ever occupied for centuries then India must be the best it has ever been. We must see that India must never get into that position where one-sixth of her population is deprived of grain which is being thrown away. There are enough young men and women before us to-night to make that an impossibility. Let it be so.

WINE AND DISGRACE, OR HOME AND HAPPINESS. WHICH WAY WILL YOU GO?

DISEASES AND THEIR TREATMENT

Diabetes

By W. Howard James, M.B., B.S.

OUR food, when digested and assimilated, is either built up into the tissues or by oxygenation converted into heat and the various energies of the body Recent experiments and observations have clearly shown that the wear and tear of the body is very small, and thus by far the greatest part of our food is utilised for the production of heat, muscular, digestive, nerve, and other energies. In growing children a larger proportion of the food is converted into tissue than in the adult. As the essential part of the tissues of the body are all nitrogenous, it follows that nitrogenous food is necessary for repair of wear and tear and for growth.

All classes of foods, the proteids, carbo-hydrates and fats, can be utilised for the production of the necessary heat and the energies of the system, but the most economical foods in these respects are the carbo-hydrates and fats. The proteids, the nitrogenous elements of our food, are not so completely oxidised (burnt up) as the other two forms of food. They are like fuel in a fire that leaves a great residue of ashes, and these physiological ashes do a great amount of harm if not excreted from the system. The food of the adult, therefore, should be chiefly made up of the other two classes of foods, the carbo-hydrates (sugars and starches) and fats. These foods are burnt up readily in the system, and the waste products are quickly got rid of. This burning up of our food maintains our life; the assimilated food is stored up in the various tissues for the production of energies, and is oxidised whenever energy is required. Muscular action, secretion of various digestive and other fluids, and every mental phenomena, depend for their motor power entirely on this production of energy.

Fully one-half, and probably two-thirds, of the average dietary consists of sugars and starches, and consequently, if these have to be eliminated from our dietary the loss is keenly felt. This is the case with the diabetic, for his tissues have to a greater or less extent lost the power of burning up the starches and sugars of the food. They are digested in the alimentary canal as usual, passed through the liver and other organs, and are circulated in the blood, but the tissues will not assimilate them and utilise them for energy. Consequently in the diabetic all the circulating fluids of the body contain a great excess of sugar, and this sugar is continually being excreted by the kidneys. The sufferer consequently experiences great thirst, dryness of skin, and many other troublesome symptoms. There is often a voracious appetite, especially in the early stages, due, undoubtedly, to the fact that the tissues are not satisfied, for they are not incorporating into their minute meshes the food supplied.

The diabetic is consequently forced to largely eliminate from his food all sugar and foods which by digestion are converted into sugar, and these include such important foods as bread, potatoes, rice, sago, tapioca, macaroni, vermicelli, carrots, parsnips, beetroot, peas, Spanish

onions, pastry, puddings of all kinds, and sweet fruits (fresh or preserved), and also milk. There is quite a diversity of opinion as to the place which milk should supply in the dietary of diabetics. The real question is whether or not milk-sugar is capable of assimilation by diabetics. Donkin in his work, "On the Relation between Diabetes and Food," recommends a purely skim milk diet in diabetes, and has recorded some excellent results from that plan of treatment. If, however, cream or butter or any nitrogenous food is taken at the same time, one does not get these effects. The maximum quantity allowed was twelve pints a day, and Donkin insists that the milk should be fresh, not boiled. There is a pretty general agreement, however, that the addition of milk to an ordinary dietary in diabetes causes a considerable increase in the amount of sugar excreted. An enclusive skim milk diet may be tried for a time, but it becomes very monotonous. The physician, however, is not guided altogether by the amount of sugar in the urine, as often the patient feels better and weight rises when milk is allowed, and under these circumstances it is a desirable addition to the diet. There are several ways, however, of removing the sugar from milk, and then milk can be freely used. Dr. Robert Hutchison gives a method for removing the milk sugar. The directions are complex, and can only be carried out under the supervision of a reliable chemist, but as the results are so invaluable we will give them:—

The Chemical Composition of Some Common Food Materials.

	Proteid per cent.	Carbohydrates per cent.	Fat per cent.	Water per cent.	Mineral matter per cent.	Full value per pound calories.
Fresh hen's eggs	13.4	0	10.5	73.7	1.0	720
Boiled hen's eggs	13.2	0	12.0	73.2	0.8	765
Butter	1.0	0	85.0	11.0	3.0	3605
Full cream cheese	25.9	2.4	33.7	34.2	3.8	1950
Whole cow's milk	3.3	5.0	4.0	87.0	0.7	335
Maize meal, unb'lt'd	8.4	74.0	4.7	11.6	1.3	1730
Oatmeal	16.1	67.5	7.2	7.3	1.9	1860
Rice	8.0	79.0	0.3	12.3	0.4	1630
Wheat flour, entire wheat or ata.	13.0	71.9	1.9	11.4	1.0	1675
Boiled rice	2.8	24.4	0.1	72.5	0.2	525
Macaroni	13.4	74.1	0.9	10.3	1.3	1665
Brown bread	5.4	47.1	1.8	43.6	2.1	1050
Wheat bread or rolls	8.9	56.7	4.1	29.2	1.1	1395
Chapatis	9.4	49.7	0.9	38.4	1.3	1140
Tapioca pudding	3.3	28.2	3.2	64.5	0.8	720
Fresh asparagus	1.8	3.3	0.2	94.0	0.7	105
Fresh lima beans	7.1	22.0	0.7	68.5	1.7	570
Dried lima beans	18.1	65.9	1.5	10.4	4.1	1625
Dried beans	22.5	59.6	1.8	12.6	3.5	1605
Cooked beets	2.3	7.4	0.1	88.6	1.6	185
Fresh cabbage	1.6	5.6	0.3	91.5	1.0	145
Dried peas	24.6	62.0	1.0	9.5	2.9	1655
Green peas	7.7	16.9	0.5	74.6	1.0	465
Raw potatoes	2.2	18.4	0.1	78.3	1.0	385
Boiled potatoes	2.5	20.9	0.1	75.5	1.0	440
Fresh tomatoes	0.9	3.9	0.4	94.3	0.5	105
Apples, edible por.	0.4	14.2	0.5	84.6	3.0	290
Plantains, yellow	1.3	22.0	0.6	75.3	0.8	460
Oranges	0.8	11.6	0.2	86.9	0.5	240
Peaches	0.7	9.4	0.1	89.4	0.4	190
Fresh strawberries	1.0	7.4	0.5	90.4	0.6	180
Dried prunes	2.1	73.3	0.0	22.3	2.3	1400
Almonds	21.0	17.3	54.9	4.8	2.0	3030
Peanuts	25.8	24.4	38.6	9.2	2.0	2560
Pine nuts	33.9	6.9	49.4	6.4	3.4	2845
Brazil nuts	17.0	7.0	66.8	5.3	3.9	3265
Soft-shell walnuts	16.6	16.1	63.4	2.5	1.4	3285

Sugar-Free Milk for Diabetic Feeding

Take 1 litre (1¾ pints) of skim milk, heat to the temperature of 38 deg. C (100 deg. F.), and add 10 cc (⅓ oz. about) of glacial acetic acid diluted with 100 cc of water. Mix, and allow the mixture to stand for about fifteen minutes. Collect the separated casein, and let it drain on very fine muslin, using no pressure.

Remove the casein to a mortar, rub into a smooth paste, add ½ litre of distilled water, and strain as before. Repeat this washing of the casein twice. Transfer to a mortar, rub until quite smooth, and add 2.5 grammes (38 grains) of potassium hydrate dissolved in 100 cc of water (or as much of the potassium hydrate as is necessary to make the product just alkaline to phenolphthalein).

Add 100 grammes (3 oz.) of ordinary Devonshire clotted cream, 5 grammes of gelatine previously dissolved, 1 grain of saccharin and water at about 38 deg. C up to 1 litre. Lastly strain through fine muslin.

Dr. Hutchison states that in some cases as much as five pints of this sugar-free milk have been taken in one day without any appreciable effect in increasing the output of sugar, and that "the use of such a milk will be found to be a very

(Concluded on page 264)

First Aid in the Home

By Eulalia S. Richards, L.R.C.P. and S. Edin

OF all injuries likely to occur in the home, probably burns are most common and most painful as well. Often serious burns may be prevented by the exercise of care and forethought. If there are young children in the home, always guard an open fire with a fire screen. In preparing a bath for a child, always pour cold water into the tub first, and then add the required quantity of hot water. Do not leave boiling saucepans on the stove with the handles projecting out into the room. A child may so easily catch hold of the handle and upset the boiling contents upon himself. Do not leave matches lying about in places accessible to the children. Teach children the danger of fire. Let them light a candle or set a match to a laid fire under supervision, but teach them never to play with matches or light a fire when alone. However, in spite of all care, accidents will happen. Much depends upon prompt and correct treatment of a burn. If the burn is but slight and the skin unbroken there is no dressing better than picric acid. Have a bottle of the saturated solution of picric acid in the medicine cupboard. Pour a few drops of the acid into a saucer and add an equal amount of water.

Now moisten a piece of muslin or linen with this solution and lay it over the burn, holding it in place with a few turns of bandage lightly applied. Picric acid very quickly eases the pain and hastens healing. While this acid is not caustic in its action, poisoning might occur through absorption from the skin if it be applied to a large area with broken skin. In the case of a severe burn, if the part be covered, the clothing must be removed very gently to prevent doing further damage to the tissues. A doctor should be sent for, but in the meantime the part may be covered with strips of clean linen wrung from salad or olive oil, or from the well-known carron oil, which consists of an equal mixture of linseed oil and lime water. After applying the oil, cover well with cotton wool or clean, dry cloths, and hold these coverings in place with a bandage. It is the contact of air with the burned surface which causes so much pain. If there is no oil at hand, clean muslin or linen wrung from boiled water containing a teaspoonful of table salt may be wrapped gently round the part, and held in place with a bandage. If there are blisters on the burned surface great care must be taken not to rupture or break them. A needle which has been sterilized by passing through the flame of a match may be carefully inserted under the edge of the blisters to draw off the fluid. In case of a large or severe burn, the patient may suffer from shock. Hot bottles should then be applied to the feet and legs, and a hot drink should be given.

Should a person's clothing catch fire, he should lie down and roll himself in a rug or blanket. To run out into the open air is the worst possible thing to do.

If a person is burned by a corrosive acid bathe the part with a weak solution of washing soda, baking soda, or magnesia before applying the dressing. If the burn is caused by a corrosive alkali, bathe the part with dilute vinegar or lemon juice, then apply a soothing dressing.

Fractured Bone

Another serious accident that sometimes occurs is the fracture of a bone. A fracture may usually be recognized by great pain-swelling, deformity, abnormal mobility, loss of power, and sometimes a grating sound between the ends of the fractured bone. All fractures should be treated by a doctor, but if there is any delay in the doctor's arrival, or if it be necessary to move the patient from one place to another, the broken limb must be protected from further injury by the ap-

plication of a temporary splint or support. An umbrella, a walking stick, a broom handle or a piece of board, may be used for a fracture of a leg. The splint must be long enough to include the joints immediately above and below the fracture. The fractured limb must be gently but firmly straightened; then the splint applied to it by means of bandages, one of which should be fastened around the limb above the fracture and the other below.

If a joint is sprained, as in the case of a sprained ankle, wrist, or shoulder, apply a cold water bandage firmly around the part, and rest the limb. Hot fomentations may be employed occasionally for the relief of pain and swelling. Gentle rubbing of the part is of great benefit after the first severe symptoms have abated.

Foreign Body in the Eye

A cinder or particle of grit in the eye is most distressing. First draw down the lower lid; then, if the foreign body is visible, it may be easily removed with the corner of a clean handkerchief. But very frequently the annoying particle is lodged beneath the upper eyelid. If this seems to be the case, draw the upper eyelid forward, push up the lower lid beneath it, and then let go. The lower eyelashes brush the inner surface of the upper lid and may dislodge the foreign body. If several attempts fail, the upper eyelid may easily be turned back. Have the patient facing the light. Stand behind him with his head against your chest, having ready a small rod as a bodkin or match. Now grasp the lashes of the upper lid firmly and draw the lid forward, at the same time place the small rod along the upper lid about half an inch from the edge. Now turn the lid back over the rod and look carefully for the offending particle. It is usually easily removed with the corner of a handkerchief.

If a piece of steel becomes embedded in the eyeball, drop a little castor oil or olive oil between the lids, close the eye, apply a pad of cotton wool over the eye, and keep it in place by a bandage tied tightly enough to steady the eyeball, then take the patient to a doctor.

If a foreign body enters the passage leading to the inner ear, make no attempt to remove it if the services of a doctor may be obtained. There is very great danger of injuring the delicate structures of the inner ear, so never pass a probe or other instrument into the ear. Should an insect enter the ear passage, pour a few drops of olive oil into the ear, when the insect will float upward and may then be removed.

Heat or Sunstroke

A person may suffer from heat stroke though not exposed to the direct rays of the sun. The usual symptoms are: Great thirst, a dry, burning skin, very high temperature, rapid pulse, difficult breathing; and later, insensibility.

A person so suffering must be at once removed to the coolest place available. Unfasten all tight clothing, and strip the patient to the waist. Now apply iced compresses or the coolest water obtainable to the face, head, neck, and spine, and continue this treatment until the condition is normal, or nearly so. Water may be given to drink if the patient is conscious.

Infantile Convulsions

Convulsions often mark the beginning of a serious illness in infancy, or they may re-

sult from the eating of some particularly indigestible food

If a convulsion is threatening, the child may turn pale, especially round the lips, and there will likely be twitchings of the muscles of the face and limbs. Prepare a warm bath at once. The temperature of the water should be about 100° Fahr., or just comfortably warm, as tested by the bare elbow. Undress the child and place him in a warm bath, applying a cold compress to the head and also bathing the face with cold water. After baby has been in the bath a few moments, remove him, dry gently, and wrap in a warm, dry blanket. Give a dose of castor oil, and for its immediate effect inject a small amount of warm water into the bowel, and secure a free motion if possible.

Fainting, Epileptic Fits

If a person becomes colourless and is apparently about to faint, lay her down at once with the head as low or lower than the body. Loosen the clothing, particularly the corsets and waistbands. Open the doors and windows, and give the patient smelling salts if handy. If a person falls in an epileptic fit there is nothing to do other than to loosen the clothing, and place a clothes' peg, a pencil, a spoon, or a knotted handkerchief between the teeth to prevent the tongue from being injured by the teeth.

MOTHER AND CHILD

A Little Lesson in Good Government

NOT long ago I overheard a young mother giving her little son a "review" of the principles of good government, and an exposition of the nature and occasional need of its temporary suspension, in order that martial law might cope with unusual conditions; and yet I was sure, from the casual, unpretentious, and colloquial manner of her informal little talk, that she would have been greatly surprised to know that she had been discousing on anything so abstract as "good government."

She and her two children had been visiting neighbours of ours, and she was rather dreading the next moving, which was to the home of an elderly aunt quite unused to children. She sat with me out in the grape arbour, making buttonholes in a new dress for Harry's baby sister, while Harry played horse noisily up and down the garden path. When his breath gave out he came to sit in the arbour, kicking his heels joyfully against the legs of the rustic bench. His mother put down her sewing and looked at him with an affectionate smile.

"Well Harry," she said, "our nice visit here is 'most over. There's only a week more before daddy will be back from his business trip, and then we'll go home and be all together again. We've just a visit to Aunt Emeline to make before that."

Harry projected himself homeward with an effort of the imagination: "I wonder if Gretchen *has* remembered to give Whiskers his milk every day! Say, has Aunt Emeline got a cat?"

"She has two cats," said his mother. "And that reminds me, I want to tell you some things about our visit at Aunt Emeline's. Come over here, don't you want to, and sit in my lap while we talk."

Thus ensconced, his head on his mother's shoulder, Harry took part in the following little dialogue. His mother said:

"Aunt Emeline is a good deal older than daddy or mother, and she isn't so strong as young folks, and she hasn't quite the same way of doing things; so while we're there *we'll* have to do things a little differently. For instance, cats! Aunt Emeline loves cats, but she doesn't think it's good for them to be handled. She won't mind if you just pat them gently, but it would make her sorry you'd come if you should pick them up and hug them and love them the way we do Whiskers."

"Isn't that *funny!*" said Harry, wonderingly.

"Well, it's not our way; but when we're visitig her in her house, of course we have to do things her way."

Harry seemed to see the force of this, and assented thoughtfully. His mother went on: "There are lots of ways like that, that Aunt Emeline's different about. I can't think of them all now, to tell you beforehand, so we'll have to fix things this way. You know I never ask you to mind me unless there's a good reason for it."

"Oh, yes." Harry nodded as at a well-known proposition.

"And I always try to explain the reason so you can understand it."

Harry took this again for granted as a self-evident truth.

"And yet there are *some* times once in a while, when the reason is too hard for you to understand, or things are so I can't stop just then to explain it to you, and you have to mind anyhow, because mother means to do right things."

"Like the time," said Harry, "when the lamp caught fire in the next room, and I didn't know what was the matter, and you called to me to grab the baby and run."

"Yes," said his mother, "like that time Or when you started to tell Mrs. Pratt about little sister's cunning way of banging her spoon, and I told you to run away and play with Helen; and I couldn't explain till after Mrs. Pratt left that her little girl-baby had died, and it would make her feel so bad to hear about other

THE WORLD'S HEALER

babies. Well, at Aunt Emeline's house there will probably be a good many times when I can't very well explain to you the reason for things without hurting Aunt Emeline's feelings. So you'll have to make up your mind to do what I say without understanding as much as usual the why of things. For instance, Aunt Emeline's head aches if people whistle in the house, so if you begin to whistle, and I say, 'Please don't whistle now, Harry,' you'll just stop, won't you, without asking why? You can save up, though, till I put you to bed, and then you can ask me all the whys at once."

Harry was apparently quite used to this experience of quiet talking-over of a situation; for he listened with a sober attention, and at the end meditated for a moment in silence. Then he remarked: "I shouldn't think little boys would have a very good time at Aunt Emeline's house."

His mother laughed. "Oh, I've just been warning you about the uncomfortable things. Just you wait till you see the size of Aunt Emeline's cake jar, and the raisins in the cakes." On which cheering note she dismissed him to play again. As he ran off, I said, curiously: "Do you have any trouble in managing Harry? His father was always so headstrong as a child."

"Oh, no!" she answered fervently. "Harry's such a good child! He must be just naturally reasonable! I shouldn't know *how* to manage a troublesome child!"

But it occurred to me that very likely she was doing it every day.—*Dorothy Canfield Fisher in "Mothers and Children."*

Baby's Bath

SO many mothers, especially young mothers, do not know how to properly bathe a baby. I have seen mothers who did not give the baby a tub bath until he was a year or more of age. But it is a very easy matter, if one once learns how.

First have everything ready before you begin—water, wash cloth, soap, powder, towel, clothing, etc. Have the temperature of the water about 95° and a warm room with no draughts. A very small child may be bathed in a large wash bowl, but I used a small tub bought especially for the baby. When the baby is ready for the bath, hold him with the left thumb and forefinger about the neck, and the third or little finger about under his left arm, his back being against your hand, with your right hand under him for support. Then when he is safely in the water, use the right hand for giving him the bath, still supporting him with the left.

When one learns just how to hold the baby, it is no trouble to give him the bath, and there is no danger of letting him slip into the water. The bath can be given in a very few minutes, when he should be rolled into a warm blanket and kept covered until he can be dried with a soft towel. He should then be dusted with some good baby powder and dressed in his simple little clothing, fed, and put down for his nap. He should be bathed before he is fed and at a regular time each day.

CONDUCTED BY DR. H. C. MENKEL, OF THE "SIMLA HYDRO," SIMLA

Stone Filter

Can a stone filter be relied upon to purify drinking water?

No. A stone filter will only remove the coarser impurities. Bacteria gradually work into the filter and finally fill it to such an extent that even pure water passed through it would be contaminated.

Falling Hair

Please suggest a remedy for falling hair. Is salt water beneficial or injurious?

Exposing the scalp to the air, shampooing with ice cold water daily are excellent remedies for falling hair. Cutting the hair short is also a measure of importance. The application of a lotion consisting of twenty grains of resorcin and one drop of castor oil to the ounce of alcohol is also a good remedy.

Pimples

What is the cause of pimples at the edge of the hair near the temples? They are present one week, and the next they will have disappeared. I have been troubled with them about two years.

The most common cause of pimples is an impure state of the blood and tissues, the result of an impure diet. Pimples and other skin troubles are not infrequently caused by intestinal autointoxication. Constipation is a common cause.

Baking Powders

In what way is baking powder injurious? Is it true, as a medical journal has recently stated, that a poisonous element besides rochelle salts has been found in it?

Baking powder is a chemical compound which can not be used in the body without overtaxing the kidneys in its elimination The alkaline substances also neutralize the gastric juice and thus tend to produce indigestion. Alum, ammonia and other injurious chemicals are found in many baking powders.

Cuts and Bruises

Please describe the best treatment for simple cuts or bruises in which the skin has been knocked off. What healing ointment would you advise? Is ordinary court plaster good?

There is no better remedy than the application of a little yellow vaseline and a soft cheese-cloth bandage to protect the parts from the air. Court plaster is not good; in fact, it is likely to create suppuration underneath the plaster.

Adenoids

Please give description and cure of adenoids. A doctor says that my boy of eleven years has adenoids, but not large enough to justify operation. May they grow and require an operation later?

Adenoids are growths which form in the upper part of the pharynx and the back part of the nose. They are likely to produce serious injury by obstruction of the nostrils and may lead to deafness, to deformities of the jaws, an abnormal expression of the face, and may even produce mental and nervous disturbances of a serious character. They should be removed by an experienced physician.

Obesity

Kindly outline diet and other treatment for the reduction of flesh in a woman who weighs 205 pounds, of good proportion, and who takes on flesh easily. Her weight belies her condition of health, for she is not at all a well person.

Obesity is a condition of disease and should receive attention. It is an evidence either of over-eating or deficient oxidation. The amount of food should be regulated according to the amount of muscular exercise one takes. In this case there may be some diseased condition which is responsible for the obesity. It would not be safe to make a prescription for either diet or treatment without knowing more of the case than the facts presented. A competent physician should be consulted. It is probable that the patient should take less food and more exercise. The kind of food is a matter of much less consequence than the quantity. But a course of dietetic or other treatment should not be undertaken without competent medical advice.

I had a nurse who was a very wise person. One morning after I had not slept well I remember reporting the fact at the table. After breakfast my nurse said to me: "Never tell people you haven't slept well: they don't want to hear *that*. What they want is to tell you that *they* haven't slept well!" How true today as then!

Herald of Health,

The Indian Health Magazine

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Diabetes

(Concluded from page 257)

great aid in feeding diabetics, especially when they are unable to take much meat.

We are frequently asked for a dietary for diabetes, but unfortunately a general dietary cannot be given, every case requiring special treatment. One important item is to find how much of the carbohydrates can be given without materially increasing the amount of sugar in the urine, or injuring the general health of the patient. The best starchy foods are, undoubtedly, bread and potatoes. It should be remembered that potatoes contain only about one-third as much starch as bread, and consequently may be given more freely than the latter. If two ounces of bread can be taken daily without inconvenience, six ounces of cooked potatoes may be allowed instead, if the patient prefers it. In every case the diet of the diabetic has to be governed by the amount of sugar excreted and the state of the general health.

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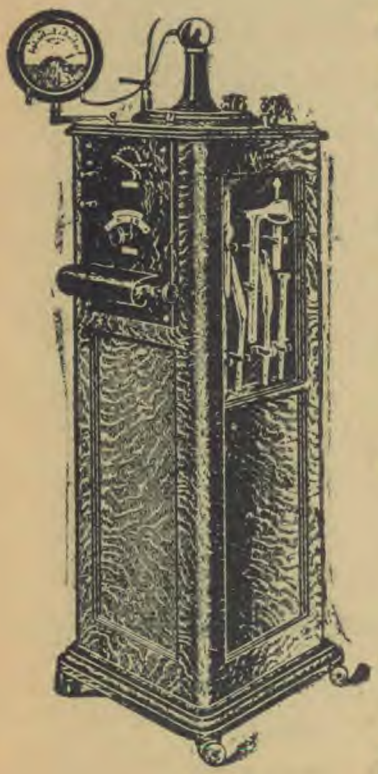

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