

# Life & Health



THE TRIANGULAR BANDAGE  
*(See page 217)*

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**SEPTEMBER-OCTOBER,**  
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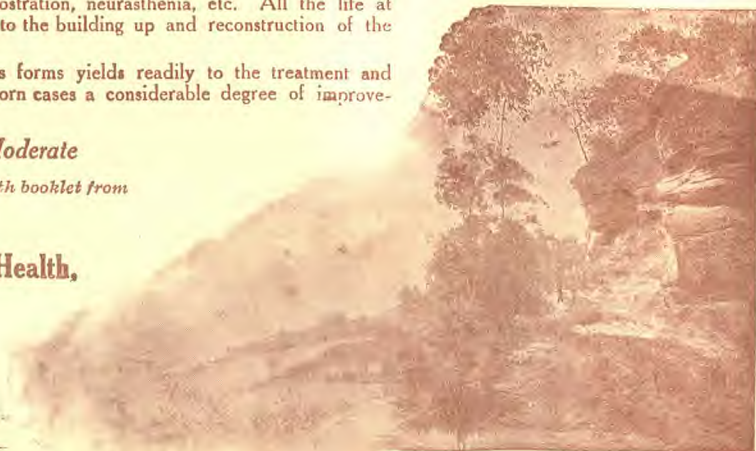
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# CONTENTS



## EDITORIAL

Tea Not a Food		200
Diet for Strength	W. H. J.	201
Diabetes Mellitus	W. H. J.	203

## GENERAL ARTICLES

The Use of Citrus Fruits as Medicine	A. B. Olsen, M.D., D.P.H.	206
Constipation	Frederick M. Rossiter, M.D.	208
Antidotes for Fatigue	Alden C. Naud	209
How America Cares for Her Soldiers		211
Hæmorrhage from the Nose and Mouth, and How to Deal with It	A. G. Simmins, M.B., M.R.C.S.	212
The Dietetic Conscience	J. D. Montgomery, M.D.	213
A Few Water Applications	David Paulson, M.D.	214
Why the Bread "Sours"		216
Easy Clock Cleaning		216
Cleaning Brass		216
The Triangular Bandage		217

## CHATS WITH THE DOCTOR

Aortic Aneurism—Ice Cream; Chocolate—Unfermented Bread—Nervous Symptoms— General Muscular Pains—Mania—Thread Worms and Abscess of Throat—For- malin—Massage—Catarrh; Bunion—Catarrhal Deafness and Head Noises— Glaxo; Running from Eyes and Nose—Fellow's Syrup; Egg Powders; Alcohol —Diet for Strength—Removal of Postnasal Growths—Rheumatism		218-223
---	--	---------

## QUIET TALKS WITH MOTHERS

Toys for Every Child	Ella Frances Lynch	224
Do Children Like the Useful Gift?	May Belle Brooks	226

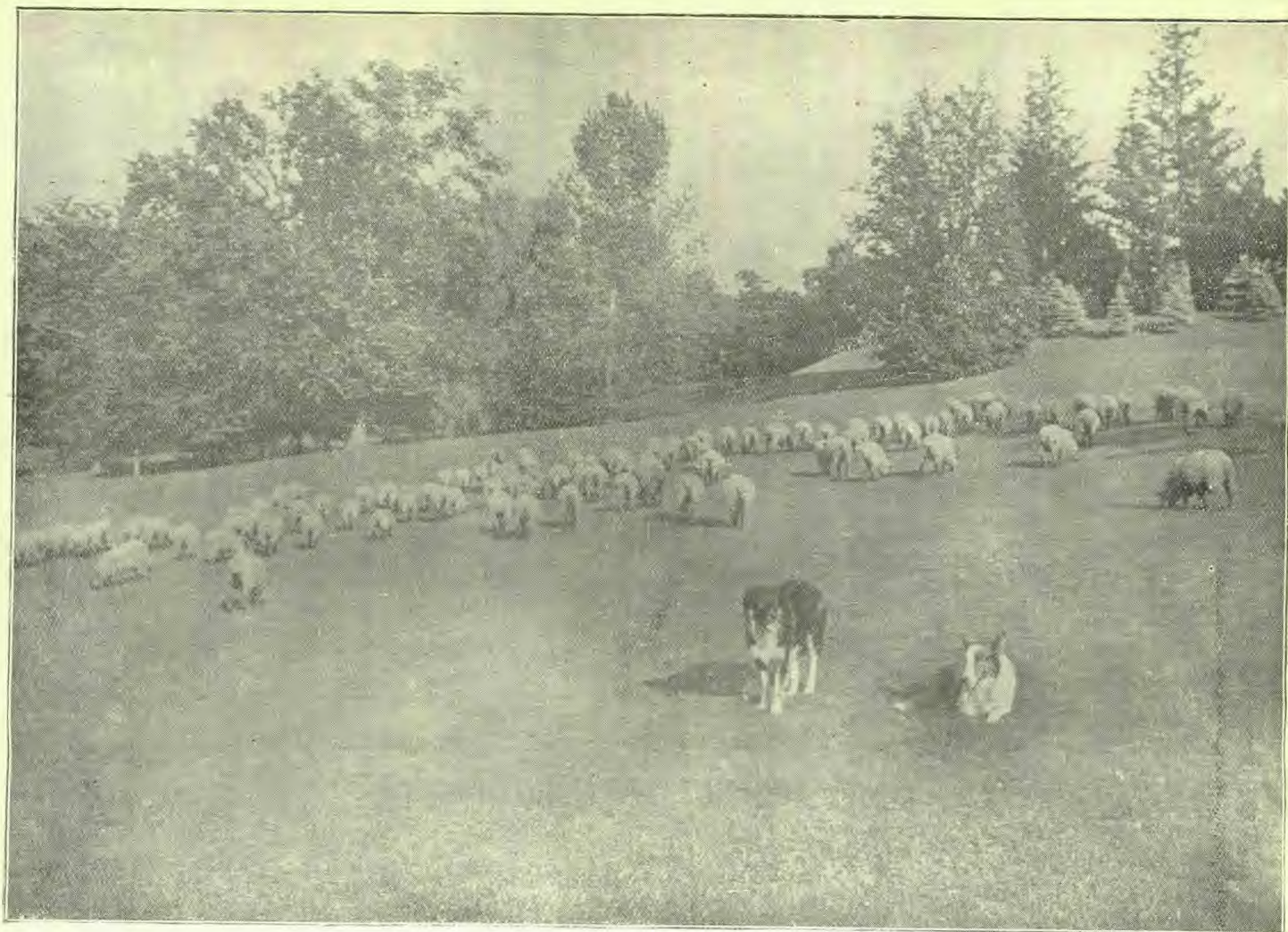
## THE HOUSEKEEPER

Dishes from Waste Products	H.G.F.	228
Some More About Potatoes	H.G.F.	230
Foods to Replace Meat and Wheat	George E. Cornforth	231

## THE CHILDREN'S HOUR

An Insect Silk Factory	Horace G. Franks	232
An Insect Baker	Horace G. Franks	233





" THE LORD IS MY SHEPHERD, I SHALL NOT WANT "



# LIFE AND HEALTH



Vol. 8

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No. 5

Editor: CHARLES M. SNOW

Associate Editors:

{ W. HOWARD JAMES, M.B., B.S.  
EULALIA RICHARDS, L.R.C.P. & S., Edin.

MANY medical men have been forced, against their will and against their own personal appetite and practice, to admit that the use of tobacco not only among men but among women also is becoming a menace to the health and strength of the race equal to that of alcohol. Many doctors smoke, and because of being addicted to the practice themselves, feel that they must defend its use. Nevertheless, some are seeing the light, and are being forced by their own experience to admit tobacco's noxious and debilitating effects upon themselves. One of the ablest physicians in New England, who enjoyed a large practice, possessed an excellent constitution, and gave close attention to his personal health, but who was what might be called an average smoker, suddenly discovered, when he had just passed the age of fifty, that his mind at times became dull. He was troubled to think. These attacks were for a time of but short duration; but one day there came an attack that was more serious. He found that he could not deal properly with a patient. Seeking a specialist, he was astonished at the specialist's verdict that his system was rapidly deteriorating as a result of the cumulative effect of tobacco-poisoning. The condition induced by the use of tobacco was causing pressure on the brain, which, if continued, would result

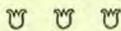
in paralytic shock. The specialist informed the doctor that he must cease completely the use of tobacco, and begin a course of eliminative treatment unless he was satisfied that he had lived long enough already. And this doctor was one who had never been able to "see that tobacco hurt him." There are many such; and, because of their liking for the weed, they succeed in convincing themselves that whatever may be their physical infirmity, it is something other than tobacco that is the cause of it. Some day they will be forced to admit the true cause; but, sad to say, the mischief by that time accomplished will be practically irreparable. One of the saddest results of the present war is the tremendous increase in cigarette smoking among young men. The sending of cigarettes to the boys at the front is not a kindness to them. Tobacco is not a strengthener of constitutions, but a sapper of vitality and nerve stamina. The strain upon the system of the soldier caused by arduous toil, sentry and patrol duty at night, the constant expectation of battle, and the continued presence of danger, is greatly added to by the use of tobacco. The majority do not realise what tobacco is doing for them; for while it is undermining the constitution, it is also deadening the nerves. This is the secret of its "soothing and satisfying effect." May



the time soon come when the world will awaken to the true nature of this insidious foe of humanity and banish it forever. The world will then be a sweeter place to live in and our children will not be afflicted by a practice that ruins their constitutions and shortens their lives.

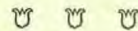


GENERALLY speaking, the practice of drinking at meals should be discouraged. It encourages over-eating, and, in most cases, encourages indigestion also by diluting the gastric juice and reducing the amount of its flow. Barley water is an excellent drink and very nourishing. Properly speaking, it is both food and drink. Few people know this or know how to prepare it properly. We do not usually give recipes in this department, but will break the rule for once. Put a rounded tablespoonful of pearl barley into a cup and a half of boiling water and let it simmer for five to ten minutes. Drain off the liquid and add a quart of boiling water with a few figs and stoned raisins chopped fine. Cook slowly until reduced about one half; then strain and add a little lemon juice. A little of the lemon rind may also be added if desired, but it is not essential. This will make about a pint and a half of drink. For double the quantity, double all the ingredients.



WHEN you have "caught cold," don't risk pneumonia, bronchitis, or other lung trouble, by determining that you are going to fight it off by your own mere physical powers. Don't come to the foolish decision that it "isn't going to amount to anything." One chance in ten it might not amount to much; but ten chances to one, it will leave you worse than it found you. So don't risk it; don't procrastinate. A cold taken in hand immediately you feel you have contracted it may be conquered in a day. A cold dallied with for even a few hours may cause you suffering for weeks or even months, and even weaken the resisting powers of your constitution so that other diseases will find you a ready

and easy victim to their inroads. Don't swallow rhinitis tablets, aspirin, calomel, hot whisky, or patent medicines. Your cold is not in your stomach. A good atomiser spraying a proper solution into the nose and throat to kill the germs and another to spray the nostrils and throat with a thin coating of oil or albolene (in which the germs find it very hard to live) will conquer your cold more quickly and more surely than any of the nostrums mentioned above, and will not upset your stomach or create an appetite for drink.



### Tea Not a Food

WE have long held that tea is not a food. We have gone farther, and asserted that instead of being a food, a builder of tissue and supplier of energy, tea is actually a deteriorator of tissue and reducer of energy because of its injury to the nervous system. We are glad, however, to see a legal decision from learned judges corroborating our first proposition, that tea is not a food. From the *Melbourne Argus* of June 28 we take the following interesting leader upon this point:—

Australians will be interested in a case in which a full Bench of the High Court of England decided that tea was not a food. A woman was charged with having hoarded tea, and, having been fined £50, carried her case to the Appeal Court. Mr. Justice Darling declared that if the Food Controller wished to prevent people accumulating large quantities of tea he should have said so. What the appellant had acquired was certainly not food, but dried leaves. The appeal was upheld by the unanimous judgment of the three judges, Mr. Justice Darling remarking that if those who drew up these orders insisted on using indefinite language His Majesty's lieges must be confused. The tenacity of the appellant will be admired by many who would not have imitated it. The ordinary person is a silent sufferer from the bureaucratic practice of drawing up an order, a regulation, or a law, and imposing upon the individual an obligation of ascertaining what it means.

Also the ordinary person is a sufferer—silent or otherwise—from the result of tea-drinking, suffering from a delayed digestion because of the tannic acid's action upon the digestive juices, and suffering from weakened and disordered nerves due to the malignant action of tea upon the nervous system.

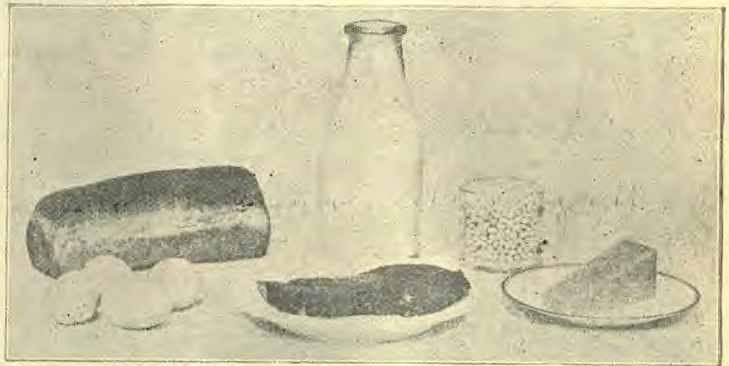


## Diet For Strength

THE strong man is not the fat man, in fact, the latter is generally a very weak man, a man of weak constitution, of poor muscular power, of little endurance, and unfit for trying emergencies. One ounce of muscle or true tissue is worth more than pounds of almost lifeless fat. Many a poor consumptive has been deceived, has had his hopes falsely revived by the fact that he has been able to put on weight. A consumptive certainly should have a somewhat more fatty diet than the ordinary healthy individual to keep up his heat, to supply fuel for energy and to battle with the inroads of the tubercular germs, but the storing up of a large amount of fat in his system is a hindrance, a load, an extra burden for his weakened system.

We have frequently been asked, What food is good for the development of the brain? The only way to develop the brain is to use it, and the best use can only be obtained with a healthy condition of the blood; blood overcharged with unconsumed waste products, the result of surfeiting, can never energise the nervous system. Similarly, the muscular system can only be developed by exercise, by work. The supply of more proteid food than is necessary for the upkeep of the being will lessen rather than increase muscular power. After an illness a man certainly retains more of the proteid element of his food in his system than in his ordinary health, and the muscles more or less quickly regain their usual form; they assimilate from the blood the elements that have been burned up during the period of inactivity; but when once the normal power is regained the person must exercise in order to add further to his true weight—the weight of muscle, not of fat.

However largely a man may partake of nitrogenous food, it will be found that the amount of nitrogen taken with the food exactly corresponds with the amount excreted by the kidneys. Proteids cannot be stored in the system like the non-nitrogenous foods, and consequently apart from work they do not increase one's weight and certainly not one's



THIS QUART OF MILK CONTAINS AS MUCH PROTEID (ONE OUNCE) AS ANY OF THE OTHER PORTIONS

strength. Although increase of proteids in the food does not increase the muscular weight, it may add to the accumulated fat. The liver and other glandular structures break up the proteid particles into two parts, one nitrogenous and the other non-nitrogenous. The nitrogenous is a useless waste product which is passed on to the kidneys to be excreted; the other is stored up or utilised for the energy of the body similar to the non-nitrogenous elements of our food. Health and strength are not obtained by the simple putting on of weight. It is generally the spare energetic man and not the fat one that lives to a good old age; it is the muscular wiry child and not the fat child who overcomes an attack of pneumonia or alimentary disease. An abnormal amount of fat not only makes the individual more susceptible to disease, but also gives him less chance of overcoming it.

A certain amount of fat, however, is



necessary for the well-being of the individual; fat enters largely into the make up of his nerves, of the marrow of the bones, the blood-making structures of the body; fat gives form to the body and prevents a too rapid dissipation of the heat produced in the body.

More fat is needed in winter than in summer. Animals not only develop a thicker fur but a thicker layer of fat under the skin for their protection during the winter months. Similarly, human beings, who do not anticipate nature by excessive clothing, also increase the amount of fatty tissue around the muscles and organs of the body and in the tissues immediately under the skin; all healthy people lose weight in summer and again increase in winter. All should recognise that increase in weight is useless apart from healthy digestion, abundance of fresh air, and an appropriate muscular activity. An alimentary canal swarming with pathogenic germs, unnatural products of poor digestion and germ excretions, and a blood loaded with waste products—physiological ashes—and other impurities, cannot mean health and strength even though there be increase in weight.

In selecting food for the purpose of increasing one's weight and strength, there are two essential qualifications: (1) it must be readily digested; and (2) it must not be too highly nitrogenous or contain impurities and poisons. Any good food, if properly prepared, masticated, and digested, when taken in excess of bodily requirements will increase the amount of fat in the system, and thus add to the weight. An abnormal amount of food, by interfering with digestion and loading the blood with impurities, often results in actual loss of weight. Many individuals would increase in healthy weight by reducing the amount of food taken, especially the nitrogenous and fatty elements.

Milk, potatoes, and bread certainly must be included in the foods which are most likely to add weight. The substitution of a glass of milk for the tea, coffee, or cocoa at a meal will certainly add

weight in the case of most individuals. Tea, coffee, and cocoa, as well as alcoholic drinks, interfere with the digestion and assimilation of food; they contain no nutrient ingredients whatever (except perhaps cocoa, which certainly supplies an infinitesimal amount of fat).

New milk contains the fat as supplied by nature, and is more digestible, and is more likely to increase weight than cooked milk, or milk from which the natural fat has been removed. Unless, however, we are sure the cow is healthy and the milking has been hygienically performed, the milk should be sterilised. In convalescence, milk may be taken between meals.

Bread should be well cooked and at least twenty-four hours old before it is eaten, and then should be thoroughly masticated. Bread made from unbolted flour is more nutritious than that made from the fine white flour. Analysis may show a slightly higher nutritive value for the fine white flour, but it should be remembered that many essential mineral salts are removed in the bran and pollard, and those elements do not figure in the tables of nutritive values found in works on dietetics. Wholemeal bread again contains elements which help the action of the bowels, and thus prevent the accumulation of injurious intestinal products.

In partaking of milk and bread, no one need fear for lack of nitrogenous principles, for three pints of milk—fresh or skim—will contain about the two ounces of proteid daily necessary for a man of eleven stone doing an ordinary amount of work; and one and one-half pounds of bread will also supply the same amount of proteid. Milk and bread will supply all the elements necessary for the upkeep of the body. Some cannot readily digest bread; this difficulty may be remedied for many people by placing slices of bread in a slow oven and baking till crisp right through, or by the use of granose biscuits. The granose biscuits contain all the nutritive elements and the essential salts of the wheat and are very nutritious and healthful. Rice and potatoes are a good form of food for the storing up of fatty



tissue where necessary. These products, unlike bread and milk, are lacking in nitrogenous elements. Milk added to either of these foods abundantly supplies this deficiency. Macaroni contains a large percentage of nitrogen, and when boiled for a couple of hours and mixed with potatoes, forms a healthful and appetising dish. A good cook will serve these foods in a healthful and appetising form. Oatmeal, when it agrees, is a good food for adding weight; it should, however, be cooked at a temperature bordering on the boiling point for at least one hour. In the form of groats it will often agree better than in ordinary oatmeal porridge. Flesh foods are too nitrogenous, contain many other impurities, and are consequently not advisable for the production of weight and strength. Men working hard in the open air can get rid of the nitrogenous waste products better

than those of more sedentary occupations, but even for them they are only a second class food. The same objection holds concerning legumes, such as dried beans, peas, and lentils. Lentils are less objectionable than peas, and peas less than beans. Nuts form a good food where they are thoroughly masticated and readily digested; but it should be remembered that they must be partaken of sparingly as they are rich both in nitrogen and fat. In the form of malted nuts, however, they are very nutritious. Hutchison gives the percentage of malted nuts as follows:—

Water	4.5 per cent
Proteid	23.6 " "
Fat	20.4 " "
Maltose	49.3 " "
Mineral Matter	2.2 " "

*"Food and Dietetics," page 261.*

W.H.J.

## Diabetes Mellitus

### The Cause of Diabetes and How to Treat the Disease

SOME authorities hesitate in calling diabetes a disease, and regard it more as a symptom in the same sense that headache, neuralgia, etc., are symptoms. It is, however, the mere matter of a name; certainly the mere presence of sugar in the urine is not diabetes, as this may occur in health when an excess of sugar has been taken; and in fact, by very delicate tests a very small quantity can frequently be found in the urine of healthy individuals. We therefore would define diabetes as the disease which makes itself known by the constant appearance of sugar in the urine.

One of the great functions of the liver is the storing up of digested sugar in the form of glycogen, to be passed into the blood again as sugar when necessary for the upkeep, energy, and nutrition of the body. The liver thus keeps the blood and tissues regularly supplied with the

normal amount of sugar. If there were no organ interposed between the alimentary canal and the blood, the latter at one time would have a very great excess of sugar and at another would be deficient in that essential constituent, according to the proximity of the last meal.

The blood as well as the urine in diabetes contains an excess of sugar; this fact shows that diabetes is not a disease of the kidneys, for the function of the kidneys is to drain off excessive constituents and waste products from the blood, whatever the excess or the waste products may be (except, of course, the gaseous matters given off by the lungs). Many have thought diabetes to be a disease of the liver, although post mortem examinations reveal no evidence of any such disease. If the liver were unable to store up sugar, the blood at intervals would contain an excess of sugar, but the



excess of sugar in the urine and blood is constant and not spasmodic. Irritation of a certain part of the brain (the floor of the fourth ventricle) will produce glycosuria (sugar in the urine), and this has

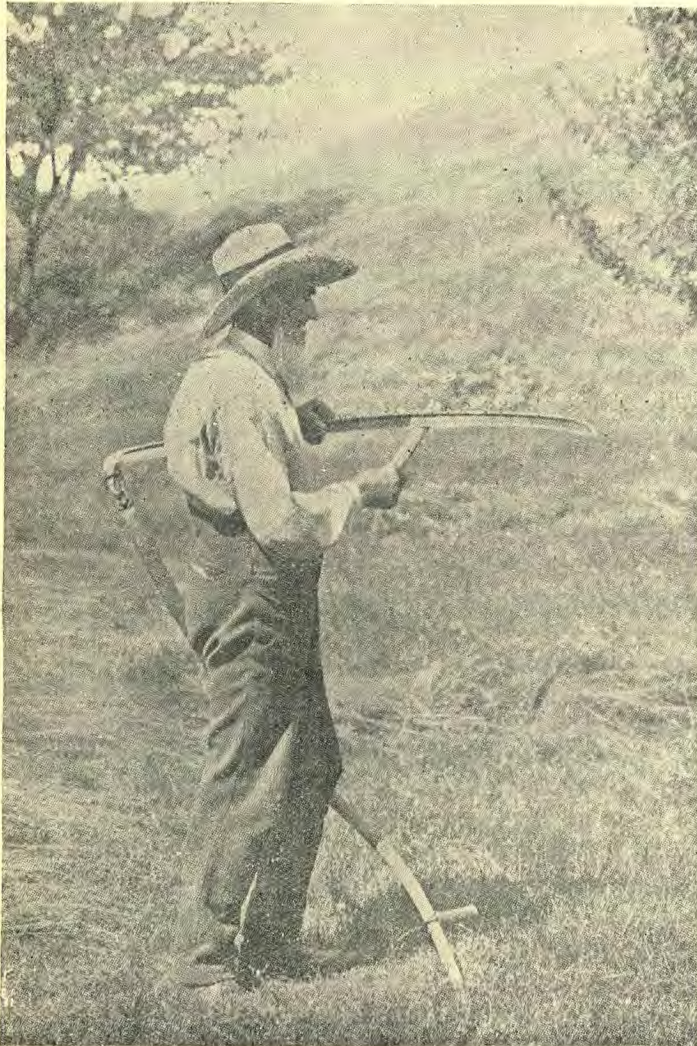
heat and energy, and also the material for repair of wear and tear, from the blood. Diabetes is a disease in which one of the constituents of our food—the sugar—cannot be fully utilised by the cells of the body, and therefore it remains as excess in the blood and is excreted by the kidneys.

Of late years we have learned a little of the internal secretions of the glandular organs of the body, the thyroid, suprarenal capsule, the pituitary gland, etc. These secretions are necessary for the right performance of the functions of the blood. And again, such organs as the liver and pancreas have a double function, an external and an internal; both secrete fluids necessary for digestion, but they also pass on to the blood secretions necessary for its vitality.

The symptoms of diabetes can readily be produced in animals by removal of a part or the whole of the pancreas—the organ that secretes fluid into the first section of the bowel (the duodenum) for the digestion of proteids, carbohydrates, and fats. In these experiments it is found that the amount of sugar in the urine varies according to the proportion of the pancreas that has been

removed. And again, disease of the pancreas in human subjects is accompanied by excess of sugar in the blood and urine.

Diabetes is thus now believed to be due to the absence from the blood of some constituent that holds the sugar in such a condition that it can be utilised by the tissues. In diabetes the sugar is cir-



EVEN THE AGED ARE "DOING THEIR BIT"

given rise to the idea that the disease may be of nervous origin; but the results even in this experiment are only temporary. Certainly great nervous strain, excitement, or worry will sometimes precipitate the disease where the tendency already exists.

The muscles, nerve tissue, and glands obtain their fuel for the development of



culated in a more or less crystalline form, a form that cannot be utilised by muscle and nerve tissue, but that can be excreted by the kidneys. This constituent, which an American writer calls the pancreatic amboceptor, holds the sugar in a colloid—non-crystallisable—form which enables it to be stored up in the tissues for the fulfilment of their functions. The crystallisable sugar can be excreted by the kidney but cannot be stored up by muscle, brain, or other glandular cells. This excretion of sugar increases the quantity of urine passed, but under healthy conditions sugar decreases the output of urine.

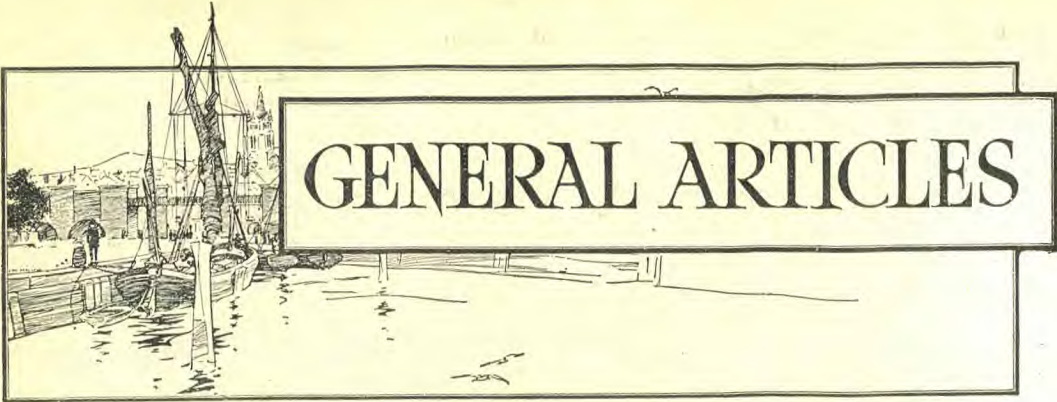
The tendency to diabetes often exists from birth (it is congenital), and frequently it is hereditary, being handed down to the child from a diseased parent or parents. The Jewish race seems to be specially liable to the disease. Dr. Wallach found that the death rate from diabetes among the Jews in Frankfort, as compared with the deaths from all other causes, was six times greater than among the other inhabitants. In Boston, diabetes is nearly two and one-half times as common among Jews as among others.

Where the tendency to the disease exists, the actual diabetes develops through a number of causes, such as high living, obesity, strenuous life, infectious diseases, syphilis, accidents, gout, diseases of pancreas and liver, and the degeneration of arteries (arteriosclerosis) found in old age. The disease is much more liable to run an acute and fatal course when developed at any early age, especially when the patient is obese. Diabetes is the result of deficient oxidation of sugar; obesity is the outcome of all or any of the elements of the food being unoxidised. When the digested food is not oxidised, not converted into energy and heat, it is either stored in the system as fat, or excreted by the kidneys as sugar. Obesity and diabetes are thus evidences of insufficient oxidation, and thus both denote a general lack of vitality. As sugar and starches cannot be taken in the usual quantities in diabetes, the deficiency is largely made up by fatty foods.

Modern authorities, however, now recognise that a great excess of fat may be much more dangerous than an excess of carbohydrates (sugars and starches). In the days of bloodletting it was frequently noticed that the blood drawn from diabetic patients developed an upper cloudy layer of fat particles. The blood of most diabetic patients contains more fat than usual. For this there are two reasons: (1) More fat is taken; (2) it is not oxidised so readily as in health. The danger of excess of fat lies in the development of acid bodies (diacetic acid, acetone, and  $\beta$  oxybutyric acid), which condition is known as acidosis, and is often accompanied by a peculiar smell both in the breath and urine. Acidosis is frequently ushered in by restlessness, headache, shortness of breath, giddiness, and insomnia. Any ill health in the diabetic should excite suspicion of acidosis, and must be attended to at once, as acidosis leads to diabetic coma, which is the cause of so many sudden deaths in this dreaded disease. A medical man should be called in and the urine examined, some of a twenty-four hours' collection is preferable. Fat should be eliminated from the diet at once and the quantity of sugar increased by giving an orange or oatmeal gruel made with water. The patient should be confined to bed and kept warm, and every effort made to allay nervousness and discomfort. The bowels should be moved by one or more enemata, but purgatives must be avoided, as they may produce diarrhoea. Give slowly about one and one-half pints of hot fluid during every six hours; if water cannot be given in sufficient quantities by the mouth it should be given by the bowel. After the first cleansing enema, nearly a pint of salt solution (one teaspoonful to a pint) should be injected into the bowel in every case. It has been the common practice to give alkalis, as bicarbonate of soda, to neutralise the acid, but it is now known that they are very harmful.

The general and dietetic treatment of diabetes will be given in the next issue of LIFE AND HEALTH. W.H.J.





## GENERAL ARTICLES

### The Use of Citrus Fruits as Medicine

A. B. OLSEN, M.D., D.P.H.

THE daily use of fruit, both fresh and stewed, is one of the best means of ensuring good health and preventing disease and especially nutritional disorders.

Few people, even amongst fruitarians, recognise the dietetic and medicinal value of citrus fruits, and are more inclined to look upon them as some dainty and delicious titbit rather than anything of importance to health. Of citrus fruits we have oranges of various varieties including the seedless Washington Navel from the Pacific Coast, the delicious russets from Florida, delightful wine-coloured or blood oranges from the Mediterranean and elsewhere, and a large number of other varieties from Spain, France, Italy, etc., not forgetting the delicious products of the orange groves of our own land, Australia. Then there is the pomelo or grape fruit, or we might call it the giant orange, aromatic and tart and somewhat pungent, which is none the less an agreeable fruit with which to start breakfast in the morning. There are the dwarf oranges, known as tangerines or mandarins, which are also highly aromatic and possess a spicy flavour. And then there are also lemons and limes which are still more acid and are popular everywhere for the preparation of appetising fruit drinks.

Either lemon or lime juice makes a splendid substitute for vinegar and can be used equally well as a dressing for various salads. Sliced oranges served with fresh

diced apples and quinces make a very appetising and delicious fruit salad.

Citric acid, which accounts for the sourness of all these fruits, is both a safe and natural antiseptic for fermentation in the stomach or bowels. Germs cannot grow in the presence of citric acid. A glass of plain lemonade in the proportion of one to two teaspoonfuls of lemon juice to half a pint of water taken hot or cold one hour before breakfast, serves as an excellent cleanser of the stomach and bowels and at the same time has a gentle laxative effect. It is a mistake to add sugar to the lemonade when it is to be used medicinally, but when it is merely a question of an attractive and refreshing drink, the sparing use of sugar makes the preparation more palatable for the majority of people.

Citrus fruits have long been recognised as a valuable remedy for persons suffering from obesity. Advantage of this fact has been taken by the patent medicine vendor, for, according to an analysis by the British Medical Association, a popular anti-obesity cure consists mainly if not entirely of a little citric acid. But it would be much more satisfactory and wholesome to make the drink direct from the fresh fruit.

Lemonade, limeade, orangeade, and the fresh fruit itself have a gentle stimulating effect upon the kidneys, and may truthfully be described as mild diuretics. An irritable bladder too is relieved by the free drinking of lemon water.

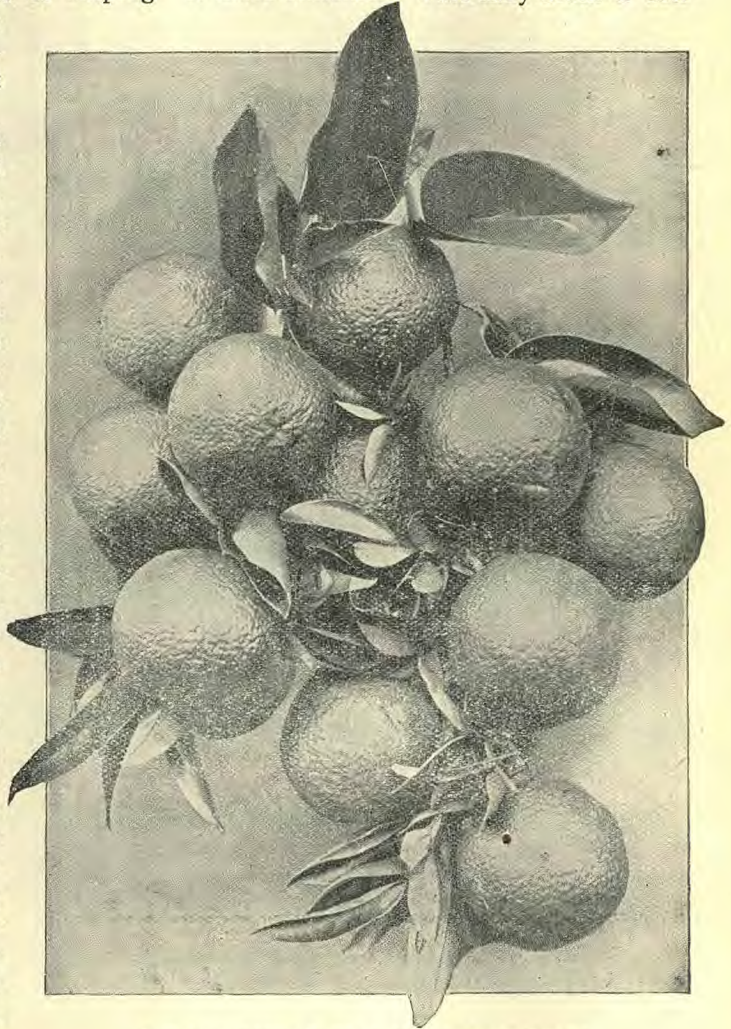


There is no more refreshing drink for the feverish patient than freshly prepared lemonade or orangeade, which, sipped cold or iced, not only serves to moisten the mouth but also to reduce the temperature. Drinking one, two, or three pints of hot lemonade is a valuable means of helping to abort the common cold or even a mild attack of influenza, if taken in the earliest stage.

All the citrus fruits have a definite even though mild laxative effect upon the bowels and may therefore be looked upon as nature's cathartic pills, even though they are large. The juice of one to four oranges taken before breakfast has a marked laxative effect, but those who have fair digestion will find no trouble in taking the pulp, providing it is well masticated, as well as the juice. It is only those who suffer from a delicate stomach or dyspepsia that are obliged to confine themselves to the juice only. As a laxative medicine oranges, grape fruit, and tangerines are all about equal in value. If the constipation is marked it is necessary to take larger doses and repeat these doses before each meal. Even for the little infant in arms suffering from constipation there is nothing better to give than a few drops of sweet orange juice in a little water. All children love fruit. If children are given fruit freely, including dates and figs, there will be less demand for sweets, candies, and chocolates, all of which are really unnecessary. Let the children form the fruit habit rather than the sweet habit and they will have a very much better chance as far as their health is concerned.

All the citrus fruits, whether in the form

of lemonade or orangeade or in their natural state, are valuable for patients suffering from gout, rheumatism, lumbago, sciatica, neuralgia, and similar disorders, because their immediate effect is to diminish the acidity of the blood and render it more alkaline. This may seem a con-



ONE OF NATURE'S BEST GERM DESTROYERS

tradition but the explanation is simple, for citric acid, in common with other fruit acids, is changed into an alkaline carbonate in the blood. Their free use assists in dissolving uric acid and other wastes that are inclined to gather in the tissues, and by this means there is a better chance of eliminating them from the system.



# Constipation

FREDERICK M. ROSSITER, M.D.

CONSTIPATION is a condition of such common occurrence to-day that it is looked upon as a trifling matter, and consequently is very much neglected. As a result, the sale of anti-constipation remedies is making many millionaires; for there is an almost endless list of drug combinations for the relief of this morbid condition, and some of these much-advertised articles are sold in prodigious quantities.

That a healthy condition of the digestive passage has very much to do with the state of our feelings is a fact not generally understood nor appreciated. A bowel full of poisons of the most offensive nature, if neglected, must result in the absorption of poisons, giving rise to much irritability, as well as to pessimistic feelings.

Then again, constipation is responsible for such disturbances as coated tongue, loss of appetite, debility, various pains, neuralgia, headache, backache, mental dullness, depression, and disturbed sleep or the inability to sleep. Infants are usually very cross and irritable if the bowels are irregular, and they become amiable and calm when the bowels move.

The causes of constipation are numerous, but probably more important than any others are errors of diet and wrong habits of eating. In the large majority of cases, a well-balanced diet, properly eaten, will, if persisted in, correct even obstinate cases of constipation. Among other causes of constipation may be mentioned overeating of too concentrated food, lack of exercise, sedentary life, the use of tea, coffee, and too much meat, weakness of the abdominal muscles, lack of muscular tone in the bowel, improper secretion, portal congestion, dyspepsia, diseases of the liver, tumours, constrictions in the bowel, irregular habits in attending to the calls of nature, hysteria, neurasthenia, and last, but by no means

the least, promiscuous swallowing of drugs for the relief of this condition.

## Treatment

Constipation is a curable condition unless due to organic interferences. But in order to effect a cure, there are certain things the patient will have to fully determine to do and to keep doing. First and foremost is eating slowly, and thoroughly chewing every mouthful of food. The writer is strongly of the opinion that if this rule were always followed, there would be very few cases of constipation. Next in importance is free water drinking, and the eating of a certain amount of fresh fruit, or the drinking of fruit juice. A person troubled with constipation should drink at least two or three quarts of water during the twenty-four hours, drinking freely before and between meals, and at bedtime.

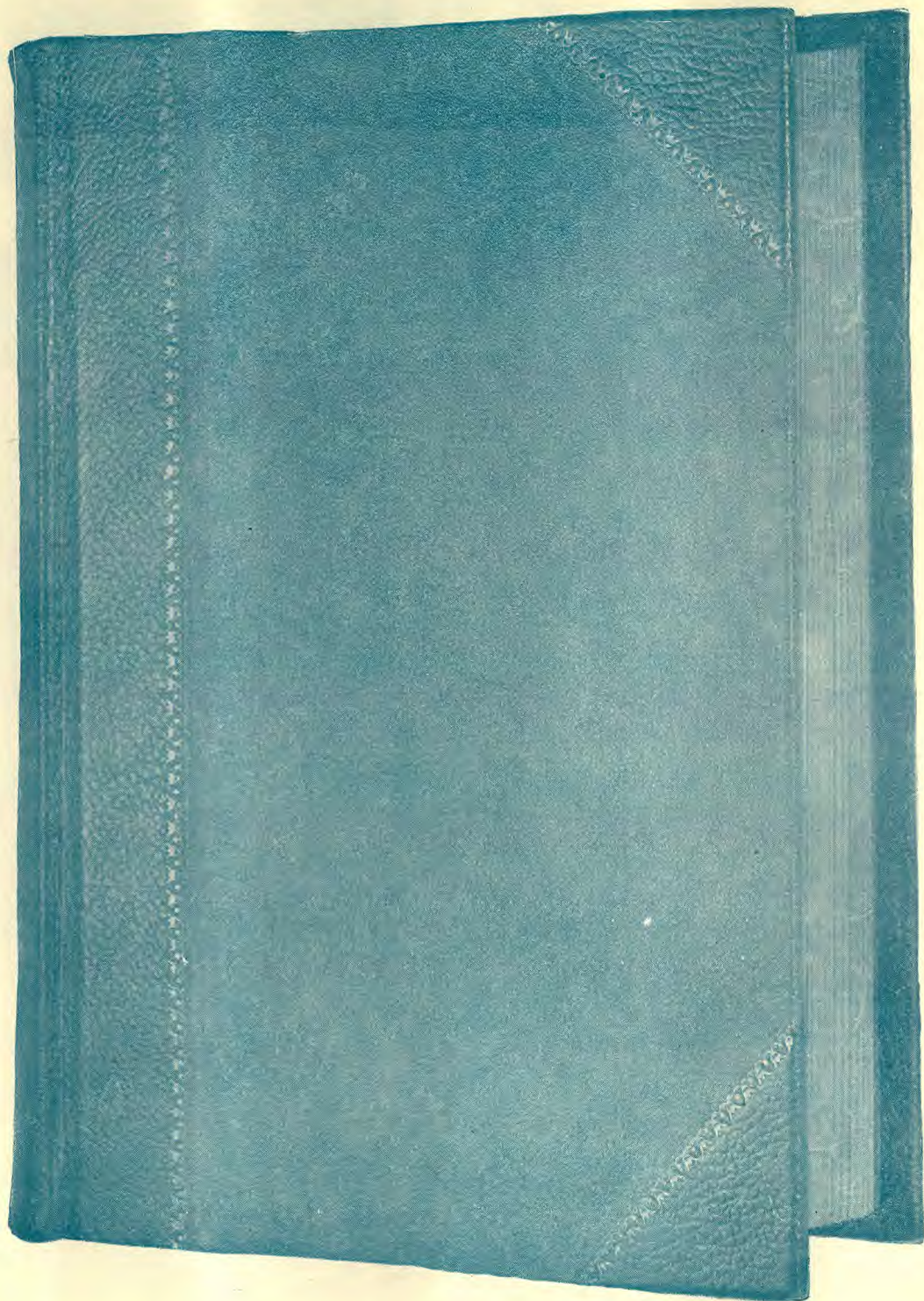
All sweets are laxative, hence sweet fruits are more laxative than very sour fruits. Oftentimes, one or two baked apples, or the juice of one or two oranges before breakfast, is all that is necessary. A few teaspoonfuls of orange juice is especially helpful in relieving the constipation of babies after the fifth or sixth month. A glass of sweet apple juice after meals is an excellent laxative, as is also the juice of a crisp watermelon. All fresh fruits and fresh vegetables are laxative, hence the different meals should be planned so these may be eaten freely.

There should be a regular time for going to stool. More than this, there should be a determined mental co-operation. That the mind has much to do in producing an action of the bowels is a fact that cannot be overlooked, and hence should not be ignored.

For the relief of constipation, exercise involving the use of the trunk muscles is of much importance, hence walking, hoeing, chopping, rowing, and deep breathing



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movements are all excellent forms of exercise.

For those who can stand it a plunge into a bath tub in the morning, or a cold sponge bath with vigorous friction, is an excellent tonic to all the organs, and produces a more normal flow of the blood, and equalises its distribution.

Constipation due to an excess of blood in the portal system will be relieved by wearing the moist abdominal girdle during the night. Wring a small towel or four layers of gauze out of cold water, place over the abdomen, fully covering with a heavy flannel strip of sufficient length to lap over the abdomen, and so make two thicknesses over the compress. Pin snugly with safety pins.

The introduction into the rectum, at bedtime, of an ichthyol suppository, or from two to four ounces of olive oil, with the hips elevated, will often give

a natural movement in the morning.

If an enema is necessary in chronic constipation, the water should be cold, seventy to sixty degrees; at first use a quart, gradually reducing the quantity from time to time.

These are measures that may be employed by anyone in the treatment of constipation. Massage and electricity are most excellent measures, and give definite results, but should be given by a trained nurse or a physician.

In case a cathartic is required, the aromatic cascara sagrada preparation is the best, the least harmful, and usually very satisfactory. The dose does not have to be increased, and in time it may be dispensed with.

If constipation is due to a rigid sphincter muscle or to disease of the rectum, these causes will have to be removed before relief can be expected.

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## Antidotes for Fatigue

ALDEN C. NAUD

"THAT tired feeling" has always been the theme of innumerable jokes. If these bits of humour bring a laugh to some weary human beings, the pleasantries, though stale, are justifiable. "That tired feeling" itself is not a joke. When it manifests itself in physical exhaustion or brain fag, it is a condition to be reckoned with seriously, regardless of whether it is a temporary sensation or a chronic experience.

A great deal might be written on the subject of fatigue, attacking the various causes, such as eye-strain, over-exertion, prolonged activity, monotonous endeavour, dissipation of energy, distasteful duties, poor health, or poorly understood efforts.

The various stages of fatigue might also be treated at length in articles on dissatisfaction with work, indifference, hopelessness, inevitable inertia, actual suffering, and total collapse.

But this is not strictly in accord with the subject of antidotes for fatigue; for we presuppose that one is fatigued. Perhaps that fact is forced upon the conscience when one feels irritable or pursues tasks in a slovenly, slipshod manner. Perhaps one feels blue or discouraged, or, maybe, he has reached the stage which in the vernacular of slang is described as being "all in."

A young woman who works hard with brawn and brain says: "There are three stages to my weariness after I begin to feel tired. At first I am amused at trifles, and am inclined to laugh heartily when there isn't so very much to laugh at. After this I get touchy and ill-natured, and feel quarrelsome and scrappy. At last I reach the 'cry-baby' stage, when my heart breaks over trifles and life doesn't look good to me any more."

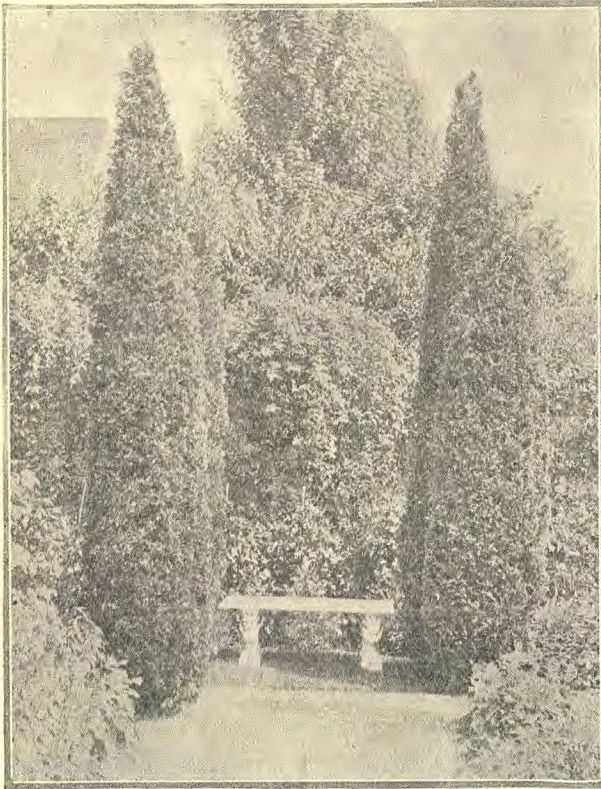
This young woman is, by the way, overworked. She looks and acts far older



than her years would justify. She will probably continue in her present course until she at length graduates into a sanitarium.

If one would overcome the fatigue that sometimes obtrudes itself seemingly without reason, it is a wise plan to begin the day right. Do this by making a start the night preceding. Go to sleep in the evening with bedroom windows open. On awakening in the morning try the effects of a brisk walk out-of-doors before entering upon the activities of the day.

Sometimes if one will drink



Thrice happy he, who by some shady grove,  
Far from the clamorous world, doth live his own;  
Though solitary, who is not alone,  
But doth converse with that eternal love.

—Drummond.

a cup of hot water on arising, it will cleanse the system and at the same time act as a gentle tonic to stimulate the body and aid in warding off undue fatigue during the day.

Some fruit and a cereal for breakfast, supplemented, perhaps, by a bit of toast, will relieve the body of the sensation of heaviness that frequently follows in the wake of eggs and bacon, chops, and coffee. When one enters upon a daily routine with animation and buoyancy, unwonted weariness is not so likely to be a constant companion as might otherwise be the case.

Correct dress, especially low-heeled shoes off a wide last, will do much to keep fatigue at a respectful distance. Comfortable



clothing should be the rule for those who would not be "spent" at the end of the day.

If unwarranted weariness overtakes one in the midst of the customary occupation of either mental or muscular powers, it is surprising how quickly one can rally the diminishing forces by sipping a glass of hot milk. This is particularly good in the case of housewives.

Work that is carefully planned beforehand will not exhaust so quickly nor exact so heavy a toll from the human system as work handled haphazard.

When one awakens with a dread of the day before him and begins his activities in a lethargic manner, working in a maze of repugnance to the duties in hand, it is time to call a halt. An effort should be made to secure more congenial employment; and, failing in this, an attempt should be made to introduce such outside interests as will stimulate the mind and give it broader and deeper channels.

When fatigue comes on unduly, it is sometimes an advance signal of approaching disease. Often it is well to consult a physician and stem the tide of sickness in its incipient stage.

More frequently a little attention to hygienic living will banish the "tired feeling." It is almost incredible, for instance, how much good one can accomplish by such economical, unimportant remedies as early rising, deep breathing, sufficient sleep, thorough ventilation, and proper diet.

A brief cessation of activities is oftentimes all that is needed to rest one from a minor attack of fatigue. Sometimes merely closing the eyes for an instant will give relief.

When it is possible, in case great weariness overtakes one, it is well to sit down a moment while one reads a bit, or allows the mind to dwell on some pleasant thought or memory. In extreme cases it is best to lie down and let the entire body relax. If one has the time and opportunity for a nap, so much the better.

Of course, no one can expect to do the work required of him in the world and

never suffer fatigue. It is a good thing to feel tired enough every evening to "make the bed feel good."

It is very unwise to suffer fatigue to the point of complete exhaustion and collapse. If ordinary activities produce such results, it is time for a person to avail himself of competent medical advice.

Many times, however, some of the simple, harmless devices enumerated will make it possible to husband the strength so that life is far less cumbersome, and what were otherwise burdens become pleasures.

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### How America Cares for Her Soldiers

THE splendid example of the U. S. Government in the protection of the men who have gone from their homes to the front is worthy of a great people. The military authorities have not only given protection at home, and prohibited liquors for the soldiers when in their own land, but they have commandeered a town in France and fitted it up as a headquarters for the men as they come to the war zone, or on the periodical rest leave. They have provided every wholesome amusement, and ball parks and other centres for recreation. The drink business has been banished from the city, and immoral women have been removed, thus saving the men from the greatest temptations possible to them. It is no wonder that we hear of the splendid condition in which these men are keeping. It will be forever a blot on our Empire that we have permitted our men to be captured by the drink traffic, and that in Cairo there have been allowed dens of immorality that are a disgrace to civilisation. Many a brave man who had never known the taste of drink, and went out pure and unmarked, will come home sorrowful because the evils licensed by our Government have compassed his downfall. Surely it is not too late to learn the lesson from our latest and wisest Ally, and give our noble men the best protection we can.—*White Ribbon Signal*.



# Haemorrhage from the Nose and Mouth, and How to Deal with It

A. G. SIMMINS, M.B., M.R.C.S.

BLEEDING from the nose is extremely common and is not often serious. If it occurs very frequently it may mean that there is something within the nose which requires treatment, such as ulceration, or else that there is some general disease present. Very rarely is sufficient blood lost to affect seriously the general health. To stop bleeding from the nose, the head should be held back with the patient sitting up, and cold applied to the back of

the first duty of those in attendance on them to reassure, and urge the necessity for absolute rest.

There are many causes of bleeding from the mouth. Of the less serious conditions causing it there may be mentioned inflammation and ulceration of the inside of the mouth, spongy gums, and biting of the tongue, such as occurs in epileptics during a fit. The bleeding is usually slight. To relieve the bleeding, a

mouth wash should be used after every meal, or more frequently, and the teeth should be kept thoroughly clean with a brush. A saturated solution of thymol is a good and cheap mouth wash that can be made up by any chemist. In cases of spongy and bleeding gums it is a good thing to "massage" the gums with the finger for a few minutes every day. This increases the bleeding for the time, but after a while marked improvement takes place. After using the thymol for a few days, it is an advantage to change to an

alum mouth wash composed of half an ounce of alum together with an ounce or so of a glycerine substitute, to a pint of water.

Sometimes hæmorrhage from the mouth is the sign of more serious disease, either of the mouth itself, or of other parts. The blood ejected from the mouth may really come, not from the mouth, but from the stomach or lungs. The commonest causes are ulcer of the stomach, cirrhosis of the liver, and tuberculosis of the lungs. If the blood comes from the stomach it may come in large or small



"THERE IS SOCIETY WHERE NONE INTRUDES"—Byron.

the neck, either by means of a piece of cold metal or of cloths wrung out of cold water. It is better not to blow the nose, as this hinders the clotting of the blood which helps to stop the hæmorrhage. In cases of serious bleeding a doctor must be called in.

Whenever there is severe bleeding, from whatever part it may be, it is most important that the patient should keep still. He must be told that the quieter he keeps the more quickly will the bleeding cease. Patients suffering from hæmorrhage often become very restless and uneasy, and it is



quantities, and may be anything in colour from bright red to a dark brown or black. Whether due to liver or to gastric ulcer, the patient has usually had indigestion for some time previously and may have had other hæmorrhages. Cirrhosis of the liver is a condition not infrequently found in elderly men who have lived and drunk too well. It is sometimes known as "hob nailed liver." Gastric hæmorrhage is often associated with it, but is often beneficial rather than harmful. Hæmorrhage from an ulcer is much more serious.

Blood which has been coughed up from the lungs can be distinguished by its bright red frothy appearance. Tuberculosis is the most frequent cause of bleeding from the lungs. The blood may sometimes be brought up without any noticeable coughing. Not infrequently the blood is only just sufficient to slightly stain the sputum, at other times many ounces of pure blood are brought up.

The treatment of all patients who have had severe bleeding from the lungs or stomach is very much the same. They must lie down immediately and remain perfectly still. Someone should remain near by to reassure them. The food must be restricted to fluids, and these should be non-stimulating drinks such as milk, barley water, and fruit juices. They must be given cold. Sips of ice-cold water are useful. In the case of hæmorrhage from the stomach the doctor may stop all food for a time. The patient should not be allowed up without the permission of the doctor, and must be kept absolutely flat in bed and everything must be done for him.

Bleeding from the nose, mouth, lungs, or stomach is sometimes due to cancer. Two things may be said about cancer before closing this article: one is that it is often difficult to determine whether cancer be present, and that cancer in its early and curable stages is painless; the other is "Beware of Cancer Quacks!" If cancer is suspected, to go to a qualified medical man is to relieve one's mind and to make sure, if it is cancer, of any chances of cure there may be.

## The Dietetic Conscience

### How We Eat and Our Health

J. D. Montgomery, M.D.

It was Dr. Albert Abrams, I think, who gave the somewhat fanciful title of "the dietetic conscience" to the human palate, a sentinel at the gateway of the alimentary tract. This sentinel is designed to be a faithful watchman, to ward off and to warn against the entrance of undesirable material into the body. This sentinel should be proof against bribery, graft, and corruption. This "conscience," alas, is too often "seared as with a hot iron," like the moral monitor mentioned in the Holy Scriptures. It stoops to bribery, passing substances of hurtful composition because of a pleasing flavour. Through abject graft, this watchman admits visitors into the inner chambers long after the available space is occupied.

### No Beast So Overloaded

As a result of the corruptibility of this doorman, Dr. Abernethy remarks, "There is no beast of burden in the world so overloaded as the human stomach." Dr. Abrams, enlarging on the matter of over-eating, observes: "I doubt whether most persons really know or realise how much they do eat. On this point, they may gain precise information if they will put into a receptacle the same quantity of food they put each time in their mouths. An experiment of this kind will be sure to gain more converts to the gospel of moderation than the scientific exhortations of the dietists."

This matter of gluttony is likened to "the cameloid method of storage." We have heard how nature has made provision for the needs of camels by providing great masses of cells in which water is stored, enabling them to endure long drought. "Had nature considered such provision necessary for man, she would have created it. The average meal is practically the cameloid method of storage."

"Be not among winebibbers; among riotous eaters of flesh"; for, wrote the Neoplatonist, Porphyry, "It is not among



the eaters of simple vegetable foods, but among the eaters of flesh, that one meets assassins, tyrants, and robbers." The eating of flesh therefore is said to have a pernicious influence on the mentality of the eater. Besides this aspect of the case, we note another phase of flesh eating. It is this: "Epidemics of kreotoxism [meat poisoning] are not infrequent, inasmuch as the decomposition of the food products is not always evident to taste." Hence after the dietetic conscience has become reconciled to such questionable food products as meat has become, the alimentary sentinel finds itself unable to detect decomposing elements therein.

We have become a people who risk more at the table than we would risk anywhere else. We think we should eat to the limits of our capacity, and about so many times a day, in order properly to recuperate our strength, forgetting that "it is not always so much what we eat, but what we digest; and what cannot be

digested is the contributory revenue of gout, rheumatism, and innumerable diseases."

Euphagia—how few understand it, how few practise it! "The most important act in eating is mastication. It achieves the following: It facilitates the swallowing of food; it breaks up the food so that it can be acted upon by all the digestive fluids; it increases the flow of saliva. The majority of cases of indigestion can be traced to imperfect mastication. Prolonged mastication increases the nutritive food value; and, in consequence, less food is demanded to meet the body requirements."—*Dr. Abrams.*

#### Not Too Hasty

Thorough mastication is therefore the essential aide-de-camp, as it were, of the dietetic gateway sentinel whose duty it is to refuse admittance to undesirable applicants. One will not relish an unwholesome article of diet if one masticates that article thoroughly.

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## A Few Water Applications

DAVID PAULSON, M.D.

THE use of hydrotherapy in recent years has completely changed the former serious outlook in typhoid fever, pneumonia, and acute insanity. To-day typhoid fever, when intelligently treated with baths, is no more serious a disease than an attack of measles. In pneumonia, when properly treated with hydrotherapy, the death-rate is less than five per cent.

The old-fashioned doctor used to bleed the pneumonia patients to relieve the awful congestion in the lungs. But the patient needed all his blood to fight the pneumonia germs. Hot hip and leg packs, with hot and cold applications to the lungs, relieve the congestion more perfectly and have the advantage of bleeding the patient into his own blood-vessels.

In the State asylums where they have introduced hydrotherapy they now cure sixty per cent of the acute cases of in-

sanity, instead of only five per cent by the old programme of restraint and powders and pills.

A fomentation is nature's pain-killer, and everyone should know how to apply it because by it pain can be chased away in less time than with anything else on earth. Morphine relieves pain by paralyzing the nerve, and a few doses are sufficient to produce the opium habit, the most dreadful slavery imaginable. A hot fomentation relieves pain by relieving the congestion that causes the pain.

A fomentation is made from the quarter of an ordinary blanket, folded up and thrust into boiling-hot water, leaving the ends out so it can be wrung without scalding; then wrapping around it another quarter of a bed blanket to keep it from burning the patient. A hot-water bag



with a moist flannel cloth around it is a very convenient substitute.

The abdomen is the natural headquarters for a large amount of pain. When the fomentation does not relieve it the next remedy is a trunk pack; a single bed-blanket wrung out of hot water, folded together, so as to reach well from the arm-pits to the hips, and wrapped around the trunk. If you have the kind of pain that a thorough application of this

a hot foot bath, which is really, as far as the body is concerned, a small edition of a full bath.

At the same time apply fomentations to the chest, meanwhile inhaling some hot steam. Drink abundance of hot water or lemonade (lemon squash). Take a thorough enema, as auto-intoxication and colds generally go hand-in-hand. Go to bed, have plenty of fresh air in the bedroom. Let your diet be abstemious



“THERE IS A PLEASURE IN THE PATHLESS WOODS”

kind does not promptly relieve, it would be wisdom to send for a doctor to secure a satisfactory diagnosis.

The hip and leg pack, made the same way, is the star remedy for sciatica and many wretched pelvic pains. It fills the large blood-vessels in the limbs with blood and relieves the internal congestion.

Hydrotherapy is the safest remedy for colds, which can ordinarily be cured in a day if the treatment is begun the very first day. A chilly sensation means spasm of the peripheral blood vessels. Congestion is taking place somewhere in the body. When there are no facilities for taking a full hot bath at bedtime take

the next day. Repeat the same treatment the following evening if necessary. In most cases one treatment will do.

It is also advisable to take all such treatments in a warm room. Blue finger nails, chilly feelings up and down the spine, and a full feeling in the head, are indications that reaction has not taken place satisfactorily and that the treatment has done harm.

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To prevent bed sores rub the parts exposed to pressure twice daily with alcohol, then paint the surface with a tincture of nut gall, or a strong solution of tannic acid.



## Why the Bread "Sours"

"FERMENTED" is the term sometimes applied to breads in which common yeast is used as a leavening agent. The yeast is a tiny microscopic plant which grows by the simple process known as budding. Yeast, like any other plant, needs light, heat, and moisture for its growth. The temperature most favourable is from 70° to 75° Fahrenheit. If colder than this, its growth may be retarded altogether. Above 90° the conditions are favourable for the growth of lactic acid bacteria, and the bread "sours." Sugar feeds the yeast, so when added to the sponge, it hastens the growth. The starch of the flour is to some extent converted into sugar and thereby serves the same purpose. Salt retards the growth of yeast somewhat, but we add it because it seems necessary to season the bread to our taste. The soluble carbohydrates are acted upon by the yeast and converted into alcohol and carbon-dioxide. The carbon-dioxide gas becomes entangled in the gluten, and by expansion when heated raises the bread.

We begin the bread with either a sponge or "hard loaf," using liquid, dry, or compressed yeast. The compressed yeast proves very satisfactory, but should never be used unless light in colour and without dark streaks. The bread should be kneaded thoroughly in order to incorporate the ingredients. It should be covered and set in a warm place until its bulk is doubled. The second kneading breaks up the bubbles of gas, thus preventing the formation of large holes in the bread; and spreads the fermentation through the mixture. During the second kneading, add as little flour as possible. Shape and put into greased pans and again let rise to double its bulk.

The bread is baked to kill the ferment, to render the starch more soluble, and, therefore, more digestible; to drive off the alcohol; to expand the carbon-dioxide and thus raise the mixture and improve the flavour. The oven must be hot enough to raise the loaf to a temperature

of 212°. The best temperature for the oven is from 400° to 500°.

The bread shrinks from the pan when it is done, does not crack, and gives a hollow sound when tapped. Remove from the pan and cover lightly to cool.—*Healthy Home.*

## Easy Clock Cleaning

IF the clock shows evidences of being dirty, by losing time or stopping occasionally, particularly in cold weather, you may be able to remedy the difficulty by a very simple means, and thus save the expense of having the clock renovated. Saturate a piece of white cotton cloth or a thin layer of absorbent cotton with kerosene oil, and place it in the bottom of the clock. As the oil evaporates and rises, it will loosen the gummy dirt, which will fall to the bottom of the clock, and will be indicated by the specks on the white cloth. By changing the cloth two or three times, and thus keeping the clock filled with the evaporating oil for a few days, the works will be oiled sufficiently to keep them running for several months. But as kerosene oil is not a good lubricator, and the chief object in using it is to clean the clock, it will be well to oil the bearings, wherever they can be reached, with a fine quality of sperm oil, applied with a feather or pointed stick.

## Cleaning Brass

THE following recipe for cleaning brass is, according to the *Ladies' Home Journal*, used in the United States Arsenals:—

"Take one part of nitric acid to one-half part of sulphuric acid. Keep the mixture in a stone jar. When about to use, have ready a pailful of water and a boxful of sawdust. Articles to be cleaned must first be dipped in the acid, then in the water, and dried with the sawdust. This process will change the brass at once to a brilliant colour. If the metal is greasy—as candlesticks would be—dip first in a strong solution of potash and soda in warm water. This cuts the grease and permits the acid to act."



## The Triangular Bandage

THE bandages which an amateur is oftenest called upon to apply are those of the head and the extremities. Of the head bandages, the simplest and the easiest to apply is the triangular bandage, as shown in accompanying illustration, where a large handkerchief is folded diagonally to form the triangle. The long edge of the bandage is folded over, as if for a hem, and the centre of this hem is placed in the middle of the forehead, the central point of the bandage dropping over the back of the head toward the neck. The two ends are carried around the head to the back and tied; or, if long, they are crossed, brought forward and tied or pinned; after which the point in the back is drawn down to fit closely to the head, turned up to the top of the head, and firmly pinned there.

Another form of head bandage which may be easily applied is the four-tailed cap. A strip of a very wide roller bandage may be used, especially for a child, but for an adult a piece of muslin, three-quarters of a yard long

and not more than half as wide, will answer the purpose best. This strip should be cut lengthwise through the centre about one-third of its length at each end, when it may be used to cover the top of the head, the front, or the back. The central part of the bandage is placed over the injury, the two front tails being carried to the back of the neck and tied, and the two back tails tied under the chin, unless the extreme back of the head is to be covered, when the front tails are tied under the chin and the rear ones over the forehead.

A narrow bandage for the head, the eye, the ear, or the face, may be made from a small triangular bandage folded into the shape of a cravat; or a few turns of a roller bandage may be applied.

The triangular bandage is used to form the large arm sling shown in the illustration. It is the most effective sort of support for the lower arm, but should not be used for injuries of the upper arm or shoulder, as it is inclined to push the elbow upward. In applying this form of sling, one end of the unfolded triangle is placed over the uninjured shoulder, the length of the bandage hanging down in front of the



TRIANGULAR BANDAGE USED AS A HEAD BANDAGE AND ARM SLING

patient with the point of the triangle behind the elbow of the injured side. The elbow of the injured arm should be bent at a right angle across the chest, and the bandage drawn up in front of it in such a way as to support it in the proper position, the lower end being carried over the shoulder of the injured side, and the two ends tied or pinned at the back of the neck. The point behind the elbow is then to be brought forward and pinned, being fitted about the elbow in such a way as to form a snug sup-

port for it. A very good emergency substitute for this sort of sling is to pin the sleeve or the skirt of the coat to the front of the dress or coat with two large safety pins, one at the cuff and the other close to the elbow, which gives a very similar and satisfactory support to the injured member. Narrow slings may be obtained by folding the triangular bandage to form a cravat, or by the use of a fairly wide roller bandage.

Ordinary pins should not be used in bandages as they are liable either to slip out or to cause injury.



# CHATS WITH THE DOCTOR



**NOTICE TO SUBSCRIBERS:** All questions for this department must be addressed to the EDITOR, "LIFE & HEALTH," WARBURTON, VICTORIA. Subscribers sending questions should invariably give their full name and address, not for publication, but in order that the Editor may reply by personal letter if he so desires. Because of this omission several questions have not been answered. To avoid disappointment subscribers will please refrain from requesting replies to questions by mail.

## 172. Aortic Aneurism

"J.W.W." complains of the above with extensive tenderness over the part affected.

*Ans.*—Any blood-vessel when diseased is liable to bulge in parts, forming an aneurism. Sometimes the dilated artery is covered by all the layers of the blood-vessels, sometimes with one only; and occasionally all the layers rupture, and the blood is retained in the dilatation by chronic inflammation of the surrounding tissues. The arch of the aorta is a special seat of the disease. The active cause is often a great muscular strain or very laborious work, but generally the blood-vessels have become weakened previously by some constitutional trouble such as kidney disease, previous injury to the vessel, or syphilis. With increased blood pressure the walls at one spot give way, forming an enlargement of varied shape and size. The symptoms are pain in the chest, shortness of breath, the heart beats sensibly, and there is increased weakness. There is an anxious expression on the face with fullness of the face and neck. Often there is a broken or hoarse voice and clanging cough. There is a fixed pain referred to some part of chest wall, front or back, increased by exertion and during the night frequently associated by tenderness. There may be neuralgic pains along the arm. Sometimes there is bleeding from the lungs from moderate leakage into the lungs.

Sometimes, but not often, there is difficulty in swallowing.

*Treatment.*—The cause of the primary artery trouble (laborious work, strain, syphilis, etc.) must receive attention. There must be rest, low diet, and the removal of discomfort or anxiety as far as possible. The rest in bed must be absolute, the patient must not be allowed to even rise in bed for any purpose. The diet should be reduced to 10 or 12 ozs. of solids and about three-quarters of a pint of fluid per day. To favour clotting, iodide of potash is generally given in large doses, 20 grains four or six times a day. Where there are grave and prolonged paroxysmal seizures of dyspnoea (shortness of breath) bloodletting gives relief if brief inhalations of chloroform are not effectual. Pain can be relieved by ice bag over the part. The bowels must be kept open every day. Avoid especially much nitrogenous food and stimulants of all kinds. Surgical measures are often tried but are not recommended.

## 173. Ice Creams; Chocolate

"A.M.C." writes: "I saw this statement in an American journal recently: 'If the public only knew what good and nourishment there were in ice creams and pure fruit drinks, they would take more of them and would be better in health.' While believing the statement to be untrue, I could not explain why. I would



also like explained the effect chocolate has on the system when taken to any extent."

*Ans.*—There are many objections to ice creams. Their constituents are not always of the best. Food should never be taken between meals. Much sugar is harmful to the digestion. Extremes of temperature, hot or cold, are liable to produce catarrh of the stomach. From 45 F. to 135° F. are probably the safe limits. If taken with meals, the cold temperature would interfere with digestion.

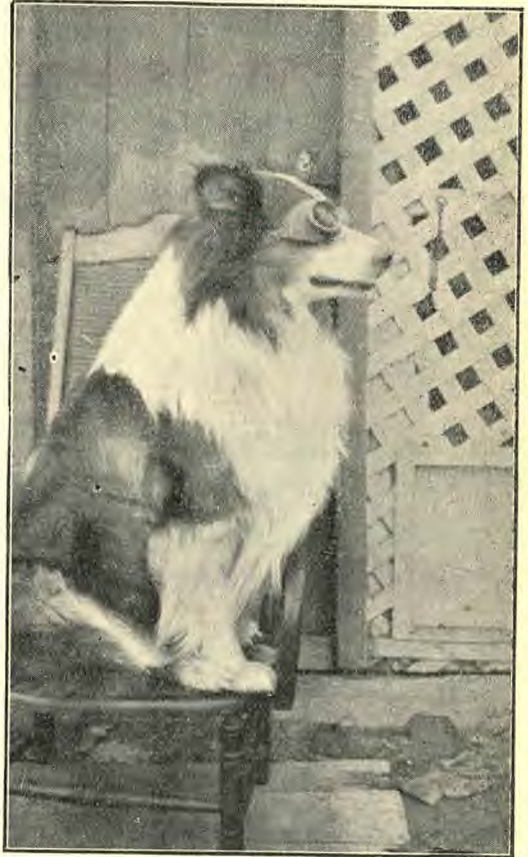
"Chocolate," says Hutchison, "is one of the most wholesome and nutritious forms of sweets, but should be taken with the meals and not between meals." They are more suitable for children than adults. Chocolate consists of ground cocoa, from which the fat has not been removed, mixed with white sugar, starch, and flavourings, such as vanilla, etc. The inferior varieties are made from unfermented beans and have a bitter taste. Good chocolate should melt easily in the mouth. Chocolate contains from 20 to 47 per cent of fat and from 26 to 66 per cent of sugar, and consequently with many, causes indigestion. Like all sweets, however, they should be taken in moderation only.

#### 174. Unfermented Bread

"R.J.M." asks for a recipe for making bread (loaf), not using any ferment.

*Ans.*—Damper, that made by the diggers in the old days, was certainly unfermented, but very indigestible. An aerated bread can be made by forcing air into the dough by machinery as the Daughlish method. In this process the gas is prepared from chemicals, and after being dissolved in water is mixed with flour under pressure in air-tight chambers. The pressure in these is then lowered by opening a tap, and consequently the dough is blown up and forced out by the expanding gas. It has not the flavour of yeast bread, but is economical, as it saves the destruction of flour by fermentation. Similar results can be obtained by baking

powders, but these we do not recommend. The *Lancet* Commission (1894) reported that the powders sold for this purpose contained a mixture of tartaric acid or cream of tartar with bicarbonate of soda. Some contain alum. The tartaric acid gives off twenty-five times its volume of gas and the cream of tartar thirteen vol-



"HIS FAITHFUL DOG SALUTES THE SMILING GUEST"—Campbell.

umes, and the alum powders seven to eleven volumes.

#### 175. Nervous Symptoms

"E.X.S." writes: "I have had a very funny feeling over my breast bone, but no pain, just like as if you had a bad fright; it makes my heart beat very quickly, and from my elbow down just like as though I had no use in my arms; there is the



**I**T pays in these days to buy foodstuffs by quantities. If you wish to keep your bag of potatoes from sprouting, place them in a wire basket, lower them into a copper of boiling water for two or three minutes to destroy the germs, dry them, and again bag them. This will save much waste and flavour.

same feeling from the knees down. My head aches severely from the two temples to the top of my head, and it is swimming round and round as though I were going to fall over."

*Ans.*—A medical examination is necessary in this case; it may be due to poor-ness of blood (anæmia), indigestion, or excess of stimulants, such as tea, coffee, and flesh diet. The "swimming" in the head is often due to ear trouble, wax in the ear, etc.

#### 176. General Muscular Pains

"Mrs. E., N.S.W.," writes: "Could you tell me what to do for pains in muscles and joints? All the muscles in the back of legs, arms, back, and neck ache. I have pains between and across the shoulders; joints are tender and weary, the thumbs near the wrist in particular; if knocked, the pain is very great and the veins swell. I had bladder trouble at one time. The doctor said it was due to bad position of the womb and that I would never be strong again. Since the change of life I have grown very stout."

*Ans.*—One cannot give a satisfactory diagnosis in this case without a personal examination. Certainly the weight should be reduced by lessening the food taken. The evening meals should be omitted. Fruit in any digestible form should be taken and flesh foods discarded. If milk be taken, there will be no fear of

**A**LL boots and shoes last longer if kept in boot trees. These may be easily made by cutting off the legs of an old pair of stockings just above the ankles and stuffing the feet tightly with shredded paper, sewing the tops when finished. Shape the foot as much like your own as possible.

a deficiency of nitrogenous foods—take a glass each meal and omit all flesh foods. General massage four times a week and exercise in the open air would be beneficial. A stay at one of the sanitariums is recommended.

#### 177. Mania

"S.H.J." writes: "1. Is mania hereditary? 2. What is morbus cordis?"

*Ans.*—There has been mania in the family and the writer wishes to know if he should marry. Mania has certainly a tendency to run in families, but that tendency is not so great as to prohibit marriage in a healthy young man unless any symptoms have developed. *Morbus cordis* is the Latin for heart disease.

#### 178. Thread Worms and Abscess of Throat

"Mrs. A.C." writes: "For some time my daughter (aged two years) has been very irritable, is very nervous, and thread worms appear in the motions. . . . Is there any remedy other than injections? . . . My husband has been troubled four times with his throat. His tonsils enlarge, one or both, and completely block his throat; it is very painful for several days, and for two days he cannot even drink, it comes out of his nostrils. Then it bursts, giving immediate relief, and he spits up thick yellow pus (matter) . . ."

*Ans.*—The injections into the bowel (the rectum) are absolutely necessary to get rid of thread worms. Cleanse the bowel first with an enema (plain water), and then inject 6 ozs. of one of the following fluids, retaining the injection as long as possible. Salt and water (tablespoonful to a pint); infusion of quassia (one ounce with pint of boiling water and allowed to cool); carbolic acid and water (one teaspoonful thoroughly shaken up with 6 ozs. of water) or lime water. Give also twice a week first thing in the morning, 1 grain santonin and 1 grain of calomel and after three hours a dose of salts (fasting).

The husband's affection is abscess of



the throat. Directly the throat gets red paint the tonsils with tincture of iodine and gargle with chlorate of potash and water (teaspoonful to half a pint). Paint the throat once daily and gargle three times in the day. Between the attacks paint the tonsils once daily with tannic acid, glycerine, and water (one teaspoonful of tannic acid, one tablespoonful of glycerine, and the same quantity of water).

#### 179. Formalin

"Alpha" asks if formalin is good for the throat, and if so is it injurious to any other organ.

*Ans.*—Formalin is a really good disinfectant and can do no harm to the throat or other organs.

#### 180. Massage

"Massage" asks if massage would be helpful to banish open pores in the face and for the development of the movements of the stomach. Can the abdomen be massaged too frequently.

*Ans.*—The art of massage can only be learned by practical demonstration. Massage of face will do good to open pores. Massage of the abdomen is good for the bowels, but should be combined with exercises that strengthen the abdominal muscles, such as raising the body while the legs are kept straight on the floor, and raising the legs while the body is kept in the horizontal position. The muscular action of the stomach will increase with increase of general health; we cannot see that massage has any direct action. One massage treatment daily for the abdomen is quite sufficient.

#### 181. Catarrh; Bunion

"Mrs. McF." asks for treatment of catarrh of back of nose and throat, and for bunion on big toe.

*Ans.*—The treatment of catarrh is given fully in last issue of LIFE AND HEALTH.

*For bunion.* In the early stage remove the cause. Use wide-soled boots with square roomy toes and low broad heels.

**M**AKE your own coat-hangers by rolling up your old magazines and tying to keep in place. Wrap them in tissue paper, tuck in at the ends, and tie again round the centre with a strong cord or polished wire, leaving a length of end to form a hook or loop to hang it by.

The deformed toe should be drawn inwards into line with the inner border of foot with strapping. A simple piece of leather when wet can be moulded to the deformed toe when kept in line with the inner border of foot. This should be worn all night. Liniment of iodine applied daily reduces the hardness and relieves pain. Sometimes an operation is necessary.

#### 182. Catarrhal Deafness and Head Noises

"G.G.T." sends us an advertisement for the above and asks our opinion on the drug.

*Ans.*—We have had no experience whatever with the remedy. Most of the advertised remedies are very disappointing; they are got up for the purpose of gain only. Read instructions for catarrh in last issue of LIFE AND HEALTH. Probably a week's fasting would do good or a fruit fast; i.e., only taking fruit as a diet for a week or ten days. Fats, butter, sugar, and all rich foods must be very largely eliminated from the diet in catarrhal conditions of nose and throat.

#### 183. Glaxo; Running from Eyes and Nose

"Subscriber" asks if "Glaxo is a safe and healthy food for infants and invalids, and what can be done for running from eyes and nostrils in cold weather. Is the latter due to old age and can anything be done for it? it is not at all troublesome while he is in bed."

**B**UY your baking soda by the pound and use it, not for cooking, but for removing stains from all kinds of white porcelain and china, baking dishes, marble and granite ware, and for cleaning combs and brushes.



*Ans.*—Glaxo is a reliable milk preparation. Many infants and invalids do well on it. Syringe the nose daily with salt and water (large teaspoonful to one pint of boiled water). Drop into the eyes daily a solution of nitrate of silver (2 grains to the ounce). Keep the feet warm and avoid chills.

#### 184. Fellows' Syrup ; Egg Powders ; Alcohol

"O.S." asks: "Is Fellows' Syrup beneficial as the tonic it is claimed to be?"



ONE OF THE SMALLER OF CALIFORNIA'S BIG TREES

Should we taboo custard powders and egg powders? Should alcohol be used in cases of emergency or what other remedies can be employed?"

*Ans.*—Fellows' Syrup is a combination of drugs—some poisonous. We believe it to have only a temporary effect, and that its prolonged use is harmful. Egg powders are largely chemical combinations and are best avoided. Alcohol we find is very rarely needed in sickness, and should only be employed on the advice of a reliable physician. The hospitals that eliminate alcohol have the best results. Teaspoonful doses of very hot water every half minute stimulate the heart's action. Smelling salts (ammonia) are also helpful. In practice we go for years without finding alcohol necessary. We have used it to tide over threatened collapse in very severe cases of pneumonia and the results have been favourable. Hot and cold applications to the heart are very useful in weak action of that organ. Repeated

cold wet applications (not sufficiently wet to damp the clothes) covered with dry towel and a hot foment occasionally (say every half hour) tone up a weak heart in acute illness.

#### 185. Diet for Strength

"Mac" writes: "I am trying to live on a vegetarian diet. I take for breakfast, porridge, two eggs on toast, bread and butter, and an apple or a couple of bananas. After breakfast I always have a teaspoonful of olive oil. For lunch I take bread and butter and a little fruit. For dinner at 6.30 I take potatoes, cabbage, boiled rice, and bread. Sometimes I have beans or peas. Before I go to bed at night I have a cup of milk with two ounces of melted mutton fat. I go dancing a good deal

and perspire very much. I do not drink tea or coffee and have no drink with my meals whatever. I drink one pint of boiled water between meals."

*Ans.*—The milk and mutton fat at bedtime should certainly be discontinued. Mutton fat is certainly not vegetarianism; fat is really the worst part of flesh food. The milk could be taken with the meal, and half a pint of milk could be taken with the lunch. Olive oil is good, but the breakfast is a very substantial one without the oil. Read article in this issue of LIFE AND HEALTH on "Diet for Strength." Exercise at night time in a close, heated room is certainly inadvisable.

#### 186. Removal of Postnasal Growths

"Halifax" states that some twelve months ago his boy had postnasal growths removed, but that he still sleeps with his mouth open and breathes largely throughout the day through the mouth. He can



breathe through the nose very well, but the difficulty is to get him to do it. He snores when he has a cold.

*Ans.*—Sometimes a second operation is necessary; it is most probably needed in this case. It may be habit; perhaps if he were threatened with a second operation if he did not breathe through his nose it would help him. The mouth could be kept closed at night by suitable straps. A warm dry winter climate would be helpful. Attend to his diet and keep him off all rich and especially fatty foods. Fat is necessary for him and can be given as milk or butter, but keep it out of the cooked food. Allow no food or sweets between meals. If the nose and throat are unhealthy, they should be attended to.

#### 187. Rheumatism

"Alexa" writes: "My son, aged  $12\frac{1}{2}$  years, has for some time complained of

pains in his legs and arms, sometimes severe, so that he cries with the pain. He is a big healthy boy to all appearances. I suspect rheumatism, but do not know how to treat him. He attends a country school where nearly all the year the roads are covered in places with water. He goes without boots or stockings, rather than remain all day with wet ones. If the trouble is rheumatic, can I get an exemption from school for him?"

*Ans.*—The trouble is probably rheumatism. He certainly should not go to school without stockings and boots. If he cannot wear goloshes, could he not have a second pair of boots and stockings to put on when he gets to school, removing the wet ones? He should avoid all flesh food, tea, coffee, and cocoa, and use largely milk, potatoes, vegetables, and fruit. No food or sweets should be taken between meals. A hot bath at bedtime twice weekly is advisable.







# QUIET TALKS WITH MOTHERS

## Toys For Every Child

ELLA FRANCES LYNCH, Author of "Educating the Children at Home"

SOME people think that good children, like poets, are born, not made. Yet badness in unspoiled children is rare. As one successful mother writes: "A good child is sometimes far more a matter of mother-training than child-training."

Child-training is not unlike forestry, where the best remedy for crookedness is prevention. The good forester has an eye to the direction of the young tree's growth, using props where needed, and then trusting largely to the soil and rain and sunshine and time and room to grow.

One of the best props for children between the ages of two and four years is Occupation, known in olden times as Play. Give the toddler a few playthings and he not only becomes instantly "good," but he proceeds to instruct himself far more effectively than a trained kindergarten could instruct him. By this means, too, the busy mother is released to rest or sew or look after a newer baby.

This morning I called at a friend's house and found the three-year-old hugging the fire-shovel. His mother remarked: "When Teddy can have that kitchen shovel to dig sand with, he is a good boy all day long."

"What does his little brother like best?" I asked.

"Oh, just give him any kind of little box, or some spools, and he asks for nothing more," she replied.

In one corner of my schoolroom a little

girl attends to her housekeeping. She scrubs her tiny blackboard, bakes sand-cakes, and looks after her dollies for nearly two hours a day, without annoyance to teacher or pupils.

A little boy plays frequently in my office, and while I am writing, we pretend we cannot talk. So well does this work that it is I who usually break the silence. One day, when he had constructed a cageful of ferocious beasts from bits of raffia, I asked, "Are the animals enjoying themselves, Billy?" "No," he assured me, "they are enjoying each other."

What a pity that children should ever lack amusement when it can be provided with so little cost and trouble. The child's very nature demands intense busyness. When no outlet is provided, the child contrives one, and we call him mischievous, or even bad. By supplying a few playthings, we offset the disposition to make mischief and help the young mind to unfold naturally, petal by petal.

The child needs time to think his own long thoughts, to adjust himself to his new surroundings and experiences; to frame the questions he needs to ask. Often and often his need is a good letting alone, free from interruptions, safe from chiding or instruction. He needs time to just grow. Playthings, even more than playmates, are a necessity. Home-made playthings answer every need. Modern complex toys, on the other hand, stunt



the imagination, since they leave nothing to be imagined, and teach the child to be destructive.

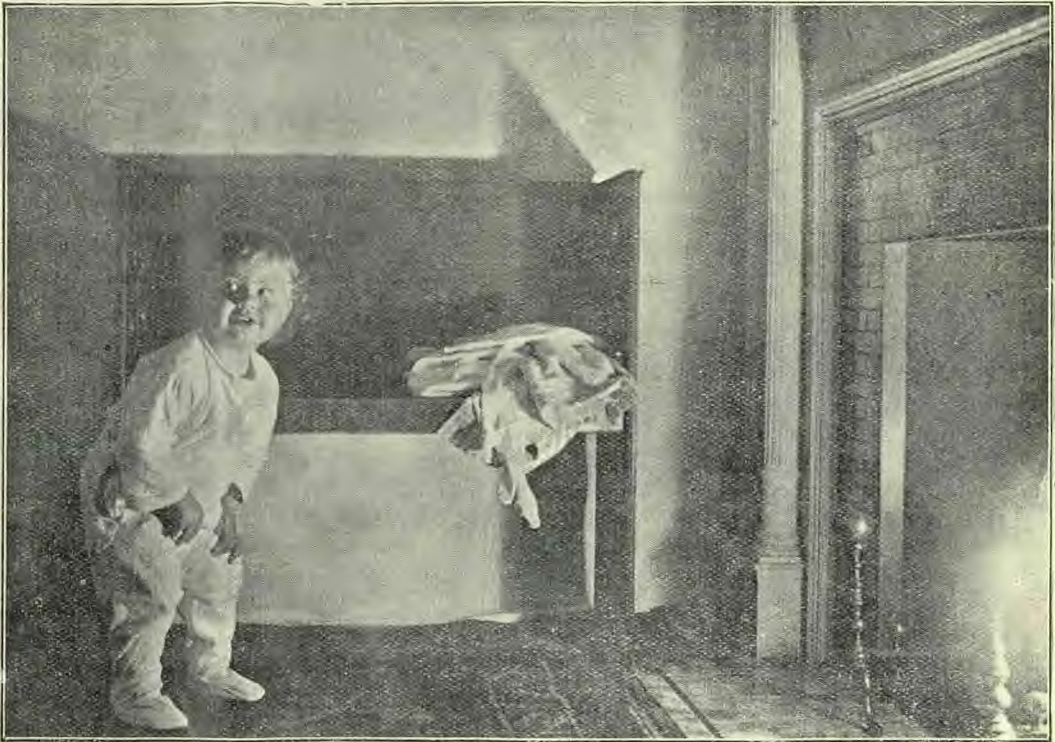
A little girl loves her rag doll better, far better, than her costly toys. A clothes-peg or a wooden potato masher dressed up in a piece of mother's gown becomes a cherished member of the family.

Few toys furnish a greater variety of entertainment than a few dozen old-fashioned split clothes-pegs. Baby thrusts the

dren of all ages from three years upward. No need to purchase a bubble-set when a clay pipe will answer the same purpose.

Paper to tear; a ball to throw; a ball on a string; a handful of buttons or dried beans in a closed box; even a flower, a leaf, a stick, will hold a child's attention for a long time. Best of all is a potato.

Dear to a baby's heart is "something with a hole in it,"—paper, pasteboard, a piece of cigar box,—but the hole is the



EXPECTANCY

split ends together and pulls them apart. He piles them up for a house and, by and by, learns to build house and barn and fences.

For building materials he must also have blocks, dominoes, or empty spools, which he can pile high and knock down again. Tiers of spools and then a square of pasteboard; on this, tiers of spools and another square pasteboard until we have a tenement house.

Blowing soap-bubbles entertains chil-

thing. He sticks one finger through and tries to pull it off on the other side. If he ever gets tired of this, give him bright scraps of cloth from your piece bag, or a lock and key to play with, or a tiny solid mirror to throw the sunlight about.

An empty shoebox fulfils a manifold destiny. With string attached it may be drawn about the room, serving for doll carriage, farm waggon, tram car, and dump cart.

Waggons, cars, and trains of cars may



be made from empty spool boxes. Wooden button moulds fastened on with large-headed pins make the wheels. To such a waggon we harness a burly quadruped made from a potato, with matches for legs and ears, match-heads for eyes, and a carved grin.

How a small boy loves an old watch, or anything with wheels; he likes little garden tools, and a broomstick for a horse. The little girl likes a small broom and a duster; old dishes for housekeeping; clothes to "dress up" in.

Blunt ended scissors, costing a few pence, and odd bits of wallpaper, are a safe combination. Clean sand furnishes material for building, washing, planting, and cooking. A basin of water in which to float chips or sticks is sometimes in order. While we work in the kitchen, a

small piece of dough makes the child happy.

What child does not love a hammer and board and a few tacks? Better than a board, a few shingles may be used, for the delight of tacking the thin ends together—and pulling them apart.

If these plans and devices had no more value than that of keeping the little one quiet and safe and happy, they would be worth while. But in truth they furnish instruction of an indispensable kind, training the *sense of touch*. This sense is most active in the young child and gradually becomes dulled if not exercised. Other training indeed also must be given the little beginner, but without these exercises in simple and undirected play, our educational foundation will not be wholly sound. It will lack one needed prop.

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## Do Children Like the Useful Gift?

MAY BELLE BROOKS

THE average child receives so many toys that he soon becomes surfeited with playthings and unappreciative of those he has. Many persons make the mistake of thinking that nothing but toys will appeal to the youngsters, but the fact is that they are highly pleased over some useful gift that is all their own and something they can use themselves, understand, and not have some one else use it for them.

Anything intended for their individual use will be sure to find favour, if it is nothing more than a small cup and saucer or table silver. If the child carries a luncheon to school every day, give him a tiny salt shaker such as may now be obtained in silver, aluminum, or china, or a set of small serviettes with his own initials embroidered thereon. An inexpensive luncheon serviette for children may be quickly made of cotton crêpe fringed and initialled. They will wash easily, require no ironing, and are so cheap that the loss of one is not a calamity.

Serviette rings of woven raffia are sani-

tary and practical, and if dipped in a favourite colour will help to reform any little person who is careless about folding his serviette after meals. Nice things beget nice manners—every mother needs to remember the psychological law in training her offspring. This fact was brought to my attention one summer when I visited a friend's summer camp. The children at home were remarkable, I thought, for their refinement at the table, but out there, where conditions partook more of the primitive, it was astonishing to note the laxity in their department.

Then there are a number of articles for the child's own room that will not only make him feel quite grown-up to possess, but will help to inculcate good habits here, also. Give the little girl a hat rest made by covering a tin can with cretonne, the edges neatly concealed with braid or gold guimpe, and she will be tempted to put her best hat away on it instead of throwing it on the bed or chair to be sat upon and crushed. This same little maid will respond as happily to a dainty coat



hanger for her closet. Buy an ordinary wooden hanger and shir ribbon over it. Then wrap the handle with ribbon, tie a bow or rosette to it, and suspend from the centre a tiny sachet bag. "Just like mother's," she will exclaim, gloating over it, and unless she is abnormally indifferent you won't have to tell her every time to hang up her coat.

And why shouldn't any little boy or girl have a pretty laundry bag? For the boy, make one of those funny little bags that resemble a miniature shirt. Use regular shirting madras or silk just like his own or father's. Make a square bag ten by sixteen inches. In the middle of the front stitch a pleat ending in a point about half way down, and sew three pearl buttons on it. Make two small sleeves with cuffs and sew in with the side seams. Turn down the top edge over an embroidery hoop and stitch. Attach a soft collar and a bow tie and a loop for hanging, and the bag is complete.

The small girl would like a daintier bag of white linen or nainsook fashioned like her dollies' frocks. Cut a little peasant dress from the material, stitch up all the edges except the neck, which should be turned down over an embroidery hoop. Embroider her monogram on the front and trim the neck and sleeves with lace or coloured bands and stitch a band around the bottom.

One might not suppose that a towel would be a suitable gift for a child, but after witnessing the pride one seven-year-old took in a small linen towel, every bit his own, even to the initial, with a crocheted edge in his favourite colour, I unhesitatingly recommend it. Whenever that particular towel was on his rack in the bathroom, we noticed that after each use it was folded neatly and hung so that the embroidery showed to the best advantage, and we never had to pick *that* towel off the floor! I have observed that the boys like pretty things as well as girls—

until somebody teases the sentiment out of them.

A delightful quilt for a young child's room is made of unbleached calico squares bordered with turkey red trimmings, or any other colour. On twenty-six of the squares embroider in a running stitch a letter of the alphabet, and on the alternating ones, some simple rhymes. This will take some time to make, but it is a gift that would be handed down to future generations.

Have you ever thought to give a young girl a set of doll patterns? Most pattern agencies now provide a full outfit in sizes to fit several dolls. They furnish excellent practice work that may later save the young lady from many errors in making her own garments.

Don't give a child a pair of stockings or some such necessity without embellishing the gift in some manner. Two women were buying gifts for a little fellow the other day and one suggested stockings, as he always needed them.

"Oh, don't get him stockings!" begged the younger woman. "Get him something useful if you like, but a little fancy. I remember I got a pair of shoes one Christmas and I was so angry! They were nice enough shoes, but I knew I'd get them anyhow, and it didn't seem square to pawn them off on me as a Christmas present."

"Well," said the older woman, who couldn't relinquish her practicality, "I'll get the stockings, but I'll put a simple toy and some pennies in the toe of each."

And that solution made a great hit with the small boy, and the stockings were lifted above ordinary stockings because they were instrumental in furnishing a surprise.

Nothing makes a small maid feel so grown-up and capable as an apron that ties around the waist. A large pocket adds immensely to that feeling.





# THE HOUSEKEEPER

## Dishes from Waste Products

### Practical Hints to the Housewife

"WASTE not, want not" was a very old adage in the time of our grandparents, and it is not one that has changed with the changing times, unless it be that now it can be read: "Waste not, want all!"

It has been asserted that the average housewife wastes as much as she cooks, and by "waste" we mean the dictionary definition: "squandering lavishly or foolishly; loss that has no compensation." To satisfy yourself as to whether you are a practical and thoroughly economical housewife, study the following hints and see if they are the laws of the kitchen and pantry in your homes.

A dainty dessert especially suitable for children and invalids, and even for healthy people, is easily made from the water in which rice has been boiled, water which is usually poured down the sink. Pour off from the cereal and leave in a cool place to congeal. Put a few spoonfuls of the jelly into a cup or basin, add a little thick cream, one or two drops of flavouring, and a spoonful of sugar. Mix lightly and serve cold. If desirable, a little crushed fruit or fruit juice may be added when serving.

And what do you do with your pineapple peelings? Next time you have one of these delicious fruits, try this: Cover the peeling, or "eyes," with cold water, after washing the outside surface, and boil until soft. Use the juice of this concoction to make a delicious tapioca pud-

ding. Or, if you have apple parings also, combine the two lots of "waste" and make a delicious fruit jelly. Or the pineapple juice may be used to flavour a drink or form the dressing of a fruit salad.

Surely the above hint has suggested the use of nearly all fruit parings, particularly apples, plums, and grapes. Covered with water and boiled until tender, they will yield good juice to produce a glass or two of excellent jelly.

While speaking of fruit peelings, the following hint, although somewhat out of season, will not be out of place in this waste-eliminating and money-saving scheme. Peach peelings may form the basis of a delicious butter. Boil them and press through a sieve or fine colander, and do not be surprised at the amount of pulp you will extract. Add sugar in the usual proportion and cook until thick.

And here is a hint for the use of "waste" orange and lemon peel. Grate the yellow portion and pack in jelly glasses with alternate layers of granulated sugar. Cover tightly and keep in a cool place. Having once tried this, you will never lack a refreshing flavouring for desserts, and far superior to the extracts on sale.

Here is another method of disposing of the same "waste": Trim the peeling free from the white pith, cut into strips, and boil until tender. Drain and cook in a thick syrup until clear. Drain again and



roll in granulated sugar and pack in glass jars. This makes a splendid substitute for raisins and other dried fruits in puddings and cakes, or it may be used as a sweetmeat. Chopped fine, it greatly enhances a dish of custard or ice cream.

If you have not a good grinder or mincer, get one; it will repay you a hundredfold. When ground up, the coarser sections near the stalk of a head of cabbage make an excellent addition to mashed potatoes, parsnips, turnips, or carrots, or may be used to flavour soups and gravies.

And, particularly in these times, it is found that the food mincer and stale bread should be inseparable companions. Save every clean piece of stale bread, dry in a slow oven, and grind, store in a tin or glass jar, and they will keep just as long as they are not used for puddings, stuffings, rissoles, and entrées. These breadcrumbs also make an excellent substitute for flour in scones, breads, or pancakes. Having once got into the habit of this substitution, the modern, careful, economical housewife will commence a circle of usefulness in the use of ground stale bread that will be the envy of her less wise sisters.

Our grandparents used the tops of radishes, turnips, and celery as greens, even as now we boil the beet tops. Why not bring in the fashion again? And do not let it stay there. The green tops of young onions, cut into small pieces and added to soups, sauces, omelettes, or mashed potatoes, turnips, or parsnips, produce a most desirable flavour. When very young and crisp these onion tops make one more ingredient for the vegetable salad.

Here are one or two suggestions to add to the celery lover's list. Chop up the green tops very fine, along with one potato and one onion, cover with water and simmer for half an hour. Thicken with a heaping tablespoonful of flour and a pint of milk, and when smooth season with salt and butter. And lo! you have a tasty cream of celery soup made from what you would otherwise have wasted. The green leaves also improve the stuffing of pumpkin or other vegetable. Even if you have no immediate demand for the services of

the green celery foliage, do not waste it. Dry in a slow oven, crush to a powder, and pack in a bottle or jar; and you have a costless celery salt unequalled by any on sale at the grocer's.

But, you say, must we even deprive the cow of the coarse outside cabbage leaves? Yes, even so, in these times! They may be used to produce an appetising dish called Mock Cauliflower. Make a good tasty forcemeat or stuffing out of bread-crumbs, milk, eggs, and seasoning, and form into a round ball. Wrap this ball in six or eight large cabbage leaves, tie in a clean cloth, drop in a pan of salted boiling water, and boil rapidly for one hour. Remove the cloth and the *top* leaves and serve with white sauce and you have a nice green-leaved cauliflower with a fine white heart. If all the green leaves are left on the ball after boiling, you have another dish which you can designate Mock Cabbage.

By this time all our housewife readers will surely have made up their minds to save all the waters in which vegetables are boiled (except that of dried beans, which is said to be poisonous) for flavouring soups, sauces, and gravies, and some will have decided to save even the water in which macaroni is boiled. This latter, combined with tomato pulp or juice, makes a most tasty soup. And what about your pea-pods? Boil them, thicken the water, add milk or cream, and you have another new soup with which to mystify your husband and your friends. Here we will close, for by this time the scraps of the kitchen will have nearly all disappeared.

The following true incident will show the natural logical consequence of putting into practice the suggestions outlined in this article:—

"Where," said the visiting lady health inspector in a large city, "is your garbage tin. Oh! this is dreadful. What ever do you do with your garbage?"

"Eat it!" was the quick and innocent reply of the little boy whose mother believed in kitchen economy and practised it.

H.G.F.



## Some More About Potatoes

IN our last issue we gave some valuable hints to the housewife on the scientific and economic aspects of potato cooking. In these days of world starvation, the cheapest food is the one which combines the characteristics of economy, nutrition, and plenty. All these are found in the potato, and since it is easily grown at little expense and moderate trouble, it has leaped into prominence as a great factor in the fight against the grim spectre called famine.

But the value of the potato as a food is largely dependent on the method of cooking. Our last article gave information concerning several do's and don't's in the cooking of this favourite vegetable, which we follow up in this issue with further hints.

It has been proved by careful investigation and experiment that while two pounds of potatoes, peeled and boiled in the ordinary way—the water in which they were cooked being thrown away—will be sufficient for five persons, the same quantity cooked in their skins, or "jackets," will feed six persons. A fact worth considering in these days of shortage and high prices! Potatoes may be cooked in their skins either by boiling or baking. New potatoes do not bake well because the skin is too thin, but when the skin becomes thick and corklike, it is a delicious way to cook them. After scrubbing them quite clean, dry them thoroughly; then place in a hot oven. A cold or a warm oven will not make the skins crisp. When nearly done (they take about an hour to bake), prick them in two or three places with a skewer or knitting needle to allow the steam to escape; otherwise you will probably lose the majority of your potatoes when they burst all over the oven. If you are in a hurry for baked potatoes, pour boiling water over them before laying in the oven.

As we saw in our last article, potatoes contain a large percentage of water; hence many people claim that it is better to cook them without putting them into more

water. And so they advocate steaming. Peel the vegetable as for ordinary boiling, place in the steamer, and sprinkle a little salt over them. The water must be boiling and the steam ready, however, before putting into the steamer. They take about one hour. To obtain floury balls, shake the pan as advised for ordinary boiled potatoes.

Potatoes for salad must not be shaken if they are required to be waxy and firm. This method of serving them, of course, makes the dish somewhat indigestible. Cut the potatoes into dice while hot, and save your small tubers for your salads.

Fried potatoes, like many very tasty morsels, are not the most digestible of foods, and so we strongly advise all dyspeptics or those suffering from indigestion to forego them if they desire health, happiness, and peace.

### Closing Words

It is best not to use old potatoes and those which have commenced to sprout, as they contain an abnormal quantity of solanin, a vegetable alkaloid of the same nature as belladonna, and one which has similar effects on the system. If, however, the housewife feels that she must, at the end of the season, use the sprouting tubers, let her be certain to cut away the portions around the sprouts, as it is in these portions that the solanin is mainly deposited.

We trust that these few hints and suggestions in the cooking of one of our staple foods will not only encourage the housewife as she sees the successful results of the methods, but will also save many a doctor's bill and many an hour of pain. Prevention is better than cure; so learn to cook potatoes properly, profitably, and appetisingly, obtaining variety by use of the further list of potato recipes immediately following this article. H.G.F.

### More Potato Recipes

**Potato Puffs.**—2 cupfuls of mashed potatoes; 1 tablespoonful of butter;  $\frac{1}{2}$  cup of cream; 2 eggs; 1 teaspoonful each of sugar and salt.



Heat the potato and butter in a saucepan; add the cream, salt and sugar and then the beaten yolks of the eggs. Let heat thoroughly, but do not boil. Remove as soon as the yolks are well mixed in; add the very stiffly beaten whites of the eggs, and bake quickly in greased gem pans.

**Potato Rock Cakes.**—Potatoes mashed with milk, placed roughly on patty pans and baked, are very appetising. A little grated onion or some chopped parsley may be added for variety.

**Potato Pancakes.**— $1\frac{1}{2}$  cupfuls of grated raw potatoes, or 1 cupful of mashed potatoes;  $\frac{3}{4}$  cup of milk; 1 cupful of flour; 2 eggs; 1 teaspoonful of sugar; 1 tablespoonful of soft shortening; salt.

About four medium-sized potatoes are required. If raw potatoes are used, peel and cut into strips, placing in salted water the night before. In the morning drain and run through the mincer and drain again. Add the eggs, shortening, part of the flour, and the milk; then the rest of the flour sifted with the other dry ingredients. If mashed potato is used more flour is necessary. Mix and bake on a hot griddle. This makes about a dozen cakes.

**Dutch Tea Rolls.**—1 cupful of mashed potatoes; 1 cupful of sugar; 1 cupful of soft yeast; 4 eggs;  $\frac{1}{2}$  cupful of shortening; 1 teaspoonful of salt; flour to make a soft dough.

At breakfast time mix the potato, sugar, and yeast, adding the eggs one by one, and set to rise. At noon add the shortening and salt, with enough flour to make a soft dough; let it rise again until three o'clock; shape into rolls, and let rise again until half an hour before required for use at tea. Then put in a moderate oven and bake for twenty minutes.

**Potato Biscuit.**—1 cupful of mashed potatoes;  $1\frac{1}{2}$  cupfuls of flour;  $\frac{1}{2}$  cupful of butter; 1 teaspoonful of sugar; salt to taste.

Rub the flour, sifted with the other dry ingredients, with the potato; then add the shortening. No milk will be required unless the potato is very dry. Roll half an inch thick and bake in a hot oven.

**Scotch Scones.**—Divide the above prepared dough into three round parts; cut each one at right angles to make four parts; bake on a griddle and when both sides are browned, split and butter before serving.

## Foods to Replace Meat and Wheat

George E. Cornforth

INSTEAD of wheat cereals, try these:—

**Rye Cereal with Nut Cream.**—2 cups water,  $\frac{3}{4}$  teaspoon salt,  $\frac{3}{8}$  cup rye meal.

Add the salt to the water and heat to boiling in the inner cup of a double boiler placed directly over the fire. Whip the rye meal into the boiling water and stir until thick. Then place the inner cup of the double boiler into the outer cup, which contains boiling water, and cook from one-half hour to one hour. Serve with—

**Nut Cream.**—Put one-third cup light-coloured peanut paste into a small bowl. Add a little cold water to it and stir till smooth, then stir in a little more water. Continue stirring in water till the mixture is free from lumps and of the consistency of thick cream. Add two teaspoons sugar and a few drops of vanilla flavouring.

Rolled rye can be bought in packages to be used as cereal. It costs more and makes no more wholesome and nutritious cereal than the old-fashioned rye meal that was common in our grandmothers' days.

**Natural Brown Rice with Fig Sauce.**—Natural brown rice has the same relation to the ordinary white rice that Graham flour has to white flour. It is the whole of the grain. As it comes in packages, it is clean and requires no washing. Take  $\frac{1}{2}$  cup natural brown rice,  $1\frac{1}{2}$  cups boiling water,  $\frac{1}{2}$  teaspoon salt.

Cook in a double boiler one hour, and serve with

**Fig Sauce.**—Wash one-fourth pound of figs and cut off the stems. Run the figs through a food chopper with a fine cutter. Stir enough hot water into this marmalade to make it of the consistency of gravy. Add one tablespoon sugar and cook in a double boiler fifteen minutes.

Pour some of this fig sauce over each serving of rice, and sprinkle a few chopped nuts over the sauce.

**Golden Grains with Dates.**—2 cups water,  $\frac{3}{4}$  teaspoon salt,  $\frac{1}{2}$  cup cornmeal.

Prepare according to the directions for cooking rye cereal, cooking one hour in a double boiler. Before serving, stir into the cereal one-half cup dates stoned and cut into small pieces. Serve with cream or milk.

**Pearl Barley with Raisins.**—1 quart boiling water,  $1\frac{1}{4}$  teaspoons salt, 1 scant cup pearl barley.

Cook in a double boiler five hours. Stir in one cup raisins and serve with cream or milk.

It takes so long to cook barley that it is well to cook enough at one time to serve at more than one meal. Raisins may be stirred into only part of the barley and the remainder served with a gravy as a substantial dish for dinner.

**Nut-Paste Gravy.**—2 cups water, 2 tablespoons light coloured peanut paste, 2 tablespoons flour,  $\frac{1}{2}$  teaspoon salt.

Dissolve the peanut paste in the water by stirring the water into the paste a little at a time. Heat to boiling and stir in the flour that has been stirred smooth with a little cold water. Cook two minutes.

Or the barley may be served with a pea gravy made by thickening left-over pea-soup with flour to the consistency of gravy.

Rolled oats and Scotch oatmeal are other cereals that should be given their share of use in replacing wheat cereals.

These cereals are nutritious, and may constitute a substantial part of the meal, no meat being required at such a meal. The rest of the meal may consist of fruit or such vegetables as cabbage (preferably raw), celery, lettuce, and spinach.

And let it be remembered that cereals contain considerable starch and require mixing with the saliva for good digestion; hence such dishes should be well chewed.

[These wheat-substitute recipes may be found more timely a few months hence when Australia's wheat begins to flow more rapidly toward the mother country; but it may be well to become familiar with them now. They will be found good, appetising, and strengthening, even if there is no present necessity that would compel their adoption.—ED. L. & H.]



# CHILDREN'S HOUR



## An Insect Silk-Factory

Making Baby's Cradle

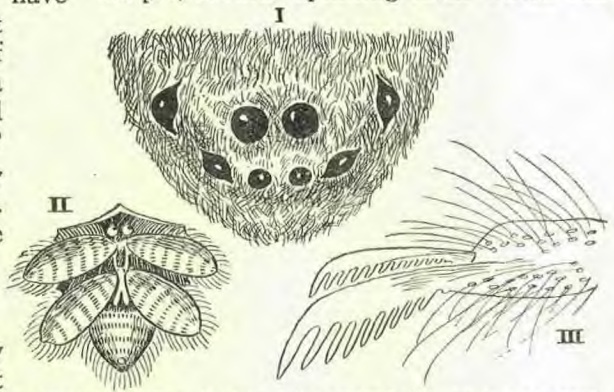
Horace G. Franks

HAVE you ever visited a silk factory, with all its complicated machinery and spinning wheels and whirring looms? If you have, your journey will surely have been full of interest. But what would you say to a visit to one of Nature's own silk factories, with a pretty spider as the building and with legs and hairs as machinery?

Listen then to the wonderful story of the Banded Epeira and its work. But first of all let me say that we are endeavouring to penetrate one of Nature's most secret mysteries; we can tell of what comes out of the silk factory, but we cannot say much about the machinery or about the processes employed. For this there are two main reasons: In the first place, the factory is well hidden in the body of the spider; and secondly, this particular factory works chiefly at night time.

You have all seen a spider's web, and I suppose that the majority of my readers have often stopped and watched the builder at work. The threads of that web are made of silk, all home-spun in the spider's silk factory. In making the web, however, the marvels of Nature are innocently displayed by that energetic inhabitant of spiderworld. As you must remember, the spider itself is of no great size, and the little bag which contains her manufacturing plant appears to be only a

particle of dirt. Yet out of that insignificant pouch she can produce a line of silk twelve feet long! Man, with all his knowledge and apparatus, can make platinum wire so thin that it can only be seen when red hot; but here we see a simple, natural spinning loom which can



I. SPIDER'S EYE; II. THE SPINNERETS (OR SILK FACTORY); III. SPIDER'S FOOT;—ALL HIGHLY MAGNIFIED

make silk threads so delicate that even the brilliant light of the sun does not always expose them to our sight.

But this home-made genuine spider silk is not made solely for use in web-building. The mother spider makes the cradle for her young from the same material. Using the tip of her abdomen and her hind legs she first forms a satin bag, of very dainty texture. It is bound to certain threads near it by means of ropes, which also keep the mouth stretched open. In this bag the mother spider lays her eggs until it is quite full; and it is a remarkable thing that she has so calculated the size of the bag that when she



has finished laying all her eggs there is no space unoccupied. She lays them all at once, and as she gets "off the nest" we may have a hurried view of the orange-coloured eggs—but only for a moment. Investigation shows that there are often six hundred.

The faithful mother now commences to close the bag. This time the spinning factory does not turn out yards of silk thread, but yards of soft felt. And then comes another change. The satin bag containing the eggs must be kept warm, so the mother surrounds her babies' cradle with a layer of eiderdown. And so silk comes out again, only this time it is not white, but reddish brown, finer than the first kind, and issuing from her factory in clouds, which the hind legs beat into a kind of froth. And so we lose sight of the spider-cradle, and see only a ball of soft wadding.

But the energetic mother is not satisfied with a round ball; for we see her now moving up and down each side making her cradle like a balloon, with a neck at the top. And then suddenly the material again changes. White silk comes out, with which the spider-weaver makes her outer cover. But she does not turn this material out as quickly as she did the previous ones. First of all a few threads are thrown out to keep the layer of wadding in position, and then, after spinning a thick and dense outer covering, the bag is sealed with a padded stopper. She finishes off her nest with another silk, varying in colour from black to russet brown.

Her nest having been completed, she slowly moves away without even a glance at her masterpiece. She knows now that her work is finished, and that she must let Father Time and Mr. Sun do the rest. Tired and exhausted, with no appetite, she lingers for a few days, and then dies—and the silk, felt, satin, and cloth factory closes down owing to the death of the manager.

After some weeks, the little spiders are hatched from their eggs, and set out to commence new silk factories.

## An Insect Baker

Horace G. Franks

WHEN I was a little child, I often wondered what the many kinds of insects did to pass away the time. Whenever I looked at spiders or caterpillars or ants or flies, they were always very busy, or at least they seemed to be! I learned many a lesson of tidiness and patience and usefulness from these tiny members of the



LEARNING LESSONS FROM THE SPIDER

insect world, but now that I have grown up, I am learning many more lessons from what are to many people unwelcome visitors.

A careful study of the lives and habits of insects reveals to us some wonderful stories. Let me tell you one of the hundreds there are to tell. If you look at the top of this story you will see the title of this little experience in the life of a beetle with a very long Latin name and a very ugly English name. So we will call it the baker beetle.

This extraordinary insect actually gathers grain, makes flour, and turns it into loaves. The first thing this beetle



does is to commence to build a home. So you see that it is a builder as well as a baker. When the male beetle finds a mate from among the many female beetles, the two set about choosing a site on which, or I should say *in* which, to build their house. Having selected a suitable position, the wife-beetle digs a large burrow, often more than four feet deep. This burrow is not straight; it consists of spiral staircases, passages, landings, and small rooms jutting off from the passages.

And the husband-beetle is not allowed to be idle. On the top of his head he carries a fork with three prongs with

pantry for food for the baby beetles which will one day be born.

And now comes the sad part of my story. Although the poor husband is harvesting and flour-making for sometimes twelve weeks, he never stops to feed himself. He knows that he must spend all his time preparing food for his coming family, and so he bravely works on until he and his wife decide that they have enough provisions stored away. By this time the poor hard-worked husband is exhausted and knows that the time will soon come when he will die. And his last thoughts are full of kindness. Know-



which he carries all the soil from the underground passages to the entrance to the house, where he piles it up. Having done this to the satisfaction of his mate, he sets out on a harvesting expedition which often lasts for over three months. He goes into the fields in search of certain little black balls which he carries back, on his three-pronged fork, to his flour mill, which is on the first storey of his subterranean home. When he has collected a good pile, he becomes a miller. He goes into the room in which is the grain, and, by means of that ever-useful fork, soon produces a good quantity of flour, which drops down the circular stairway until it reaches the cellars of their home, where it is gathered by the hard working wife, who becomes cook. She takes the flour and kneads it into huge cylindrical loaves.

And what do you think these loaves are used for? They are stored away in the

ing that his plenty of work family of small decides that he must crawl away outside the house so as not to give the female the trouble of burying him.

And so the last we see of the faithful dying husband is a pathetic sight, as he uses his last atom of strength dragging himself laboriously along, lonely and aged, to die in some distant heap of stones, not having had even a glimpse of that family for which he worked himself to death.

THERE is a curious tree in the forests of central India. The leaves of the tree are of a highly sensitive nature, and so full of electricity that whoever touches one of them receives an electric shock. The electrical strength of the tree is strongest at midday and weakest at midnight. In wet weather, its powers disap-

pear altogether.



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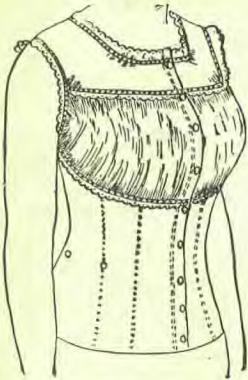
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# GRANOLA



PLACE  
**GRANOLA**

Nº1 INTO BASIN  
WITH DRY  
SPOON  
(See Recipe)

POUR  
**BOILING WATER**  
OVER **GRANOLA**  
And stir quickly with  
fork to separate grain

Nº2



Nº3

PLACE COVER  
QUICKLY OVER  
BOWL TO RETAIN  
STEAM, LET STAND  
A FEW MINUTES.



Nº4

RESULT — TASTY  
SOFT GRAINS —  
NOT MUSH!

ADD MILK, CREAM OR  
STEWED FRUIT TO TASTE

What could be easier?

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