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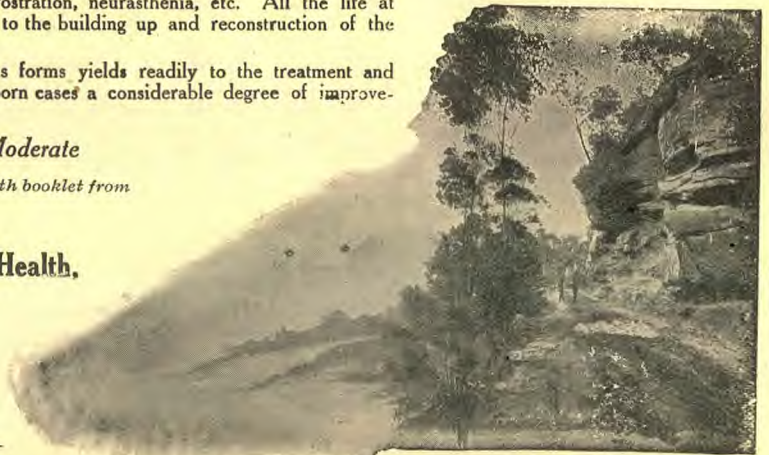
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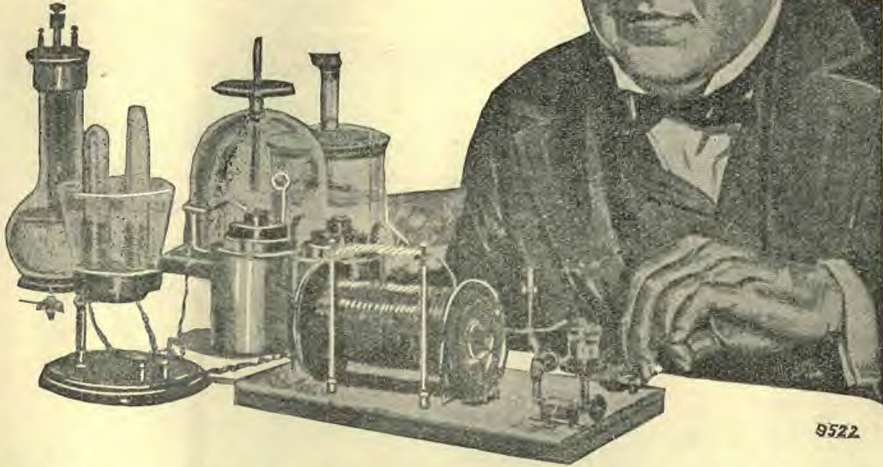
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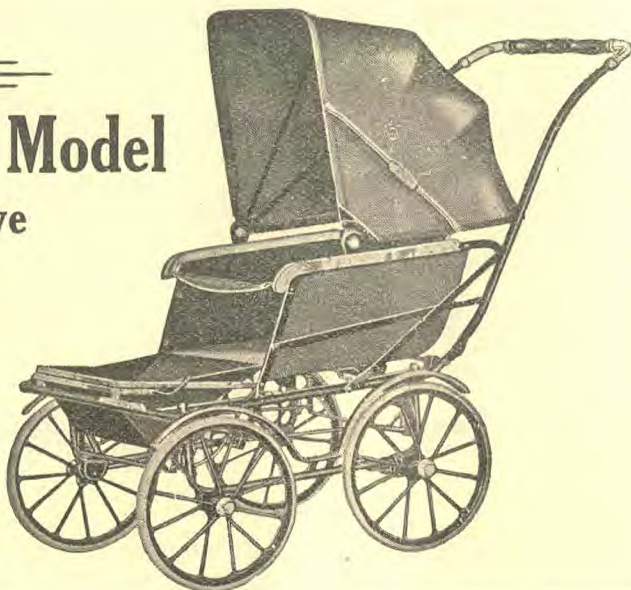
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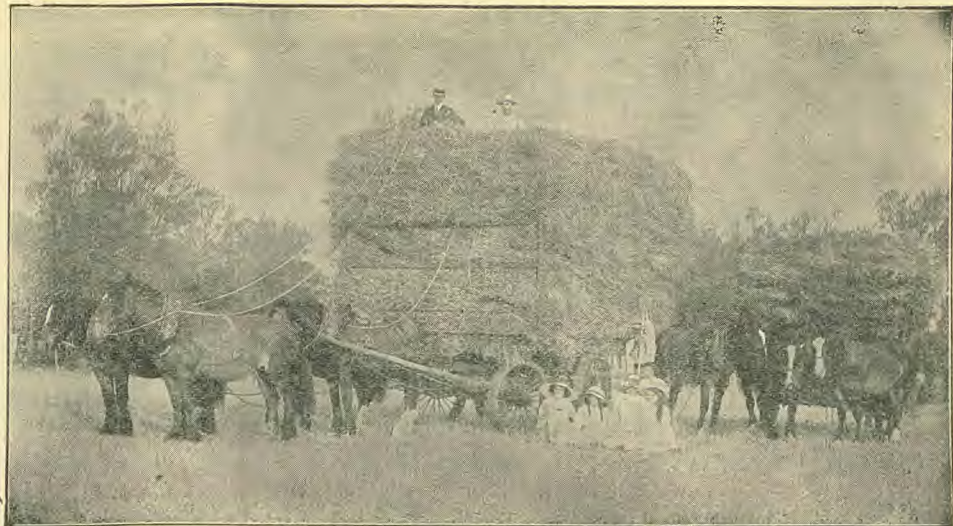
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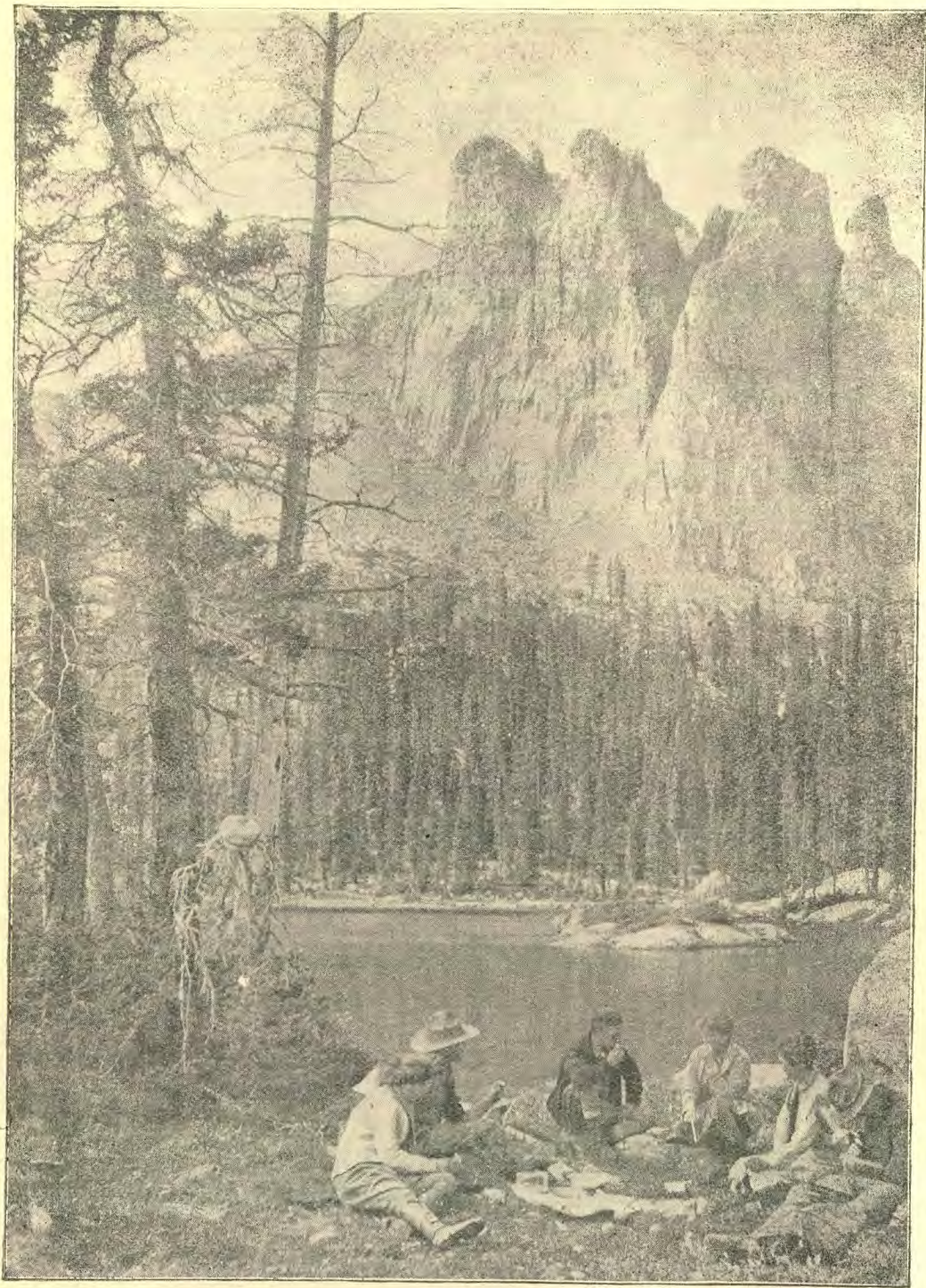
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“THE MOUNTAINS AND THE HILLS SHALL BREAK FORTH BEFORE YOU INTO SINGING, AND
ALL THE TREES OF THE FIELD SHALL CLAP THEIR HANDS

LIFE AND HEALTH

Vol. 9

January-February, 1919

No. 1

Editor: CHARLES M. SNOW

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

It is doubtful if at any time since the beginning of the Christian era the inhabitants of this world, as a whole, were working so hard as they are to-day. True, a very large proportion of this work is of a nature that accomplishes its purpose in destruction, but it is work, nevertheless. While idleness is the "devil's workshop," still much of the heated activity of this present moment is working out his evil designs; and this necessitates a counterworking activity that the powers and purposes of evil shall not swamp the race. It might seem to some that any suggestion of further exercise under such conditions would be not only unnecessary, but extremely out of place.

U U U

BUT understand, O man and woman, that some kinds of work make a few minutes' exercise absolutely essential to a continuance of good health. A woman may sit crouched at a sewing machine for hours at a stretch, and forget that her position is entirely unnatural; that she is using and overusing one set of muscles while other muscles get little or no exercise. The continual tension on these muscles and on the nerves that control them is sapping the vitality of the whole system; because, really, the system is only as strong as its weakest

part. Persons pursuing such an occupation or any similar occupation ought to be caused to see that they are doing irreparable injury to themselves.

U U U

RISE up from such an occupation at least for five minutes in each hour, stretch yourself, go through some light, comprehensive set of physical exercises, fill the lungs, expand the chest, and take up your task again. You will not lose in the end, and your employer (if you have one) will not lose at the time. If he has ordinary intelligence, he will quickly realise the importance of such a diversion, and encourage you in it.

U U U

WHAT applies to occupations of a sedentary nature in this respect applies with equal force to other occupations. Whatever the exercise is, it should be of a nature different from the occupation, so that the vital fluids of the system shall not be stagnant in any part of the body, but shall carry life and health to every organ, to every tissue, regularly, abundantly, strongly. The harmonious development of the whole body is necessary to the most satisfactory condition of health. Manual workers, girls in offices, factories, etc., often develop round shoul-

ders, poking necks, cramped, one-sided positions, certain muscles being allowed to relax, others being overworked, and the result of this (especially in growing young persons) is inharmonious and incomplete development. Further, it is not sufficient to train the muscles while the heart and lungs and other important organs are neglected, for it is on these that the body depends for its vitality, vigour, and its very existence.

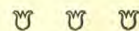


SYSTEMATIC exercises, judiciously taken, will have a beneficial influence on the whole physique, and will enable the system better to nourish itself. Breathing exercises stimulate the activity of the heart and lungs, so increasing the circulation and oxygenating the whole body. These exercises will have a tendency to correct the injurious habit of mouth-breathing; for breathing exercises should always be taken with the mouth closed. Says one who has given many years' study to the effects of intelligent exercise: "Let it not be thought for a moment that the true object of physical culture is to enable a person to perform some difficult exercises for display purposes. Far from it. . . . Correctly taught and intelligently practised, physical exercises should serve as a healthy outlet for the emotions, thus banishing hysteria in its many forms, headache, irritability, etc." More than that, intelligent exercises, judiciously practised, improve the taste for substantial foods, assist the body in eliminating its poisons, give a symmetrical development, and a better balance of the mental and physical powers.



THE use of antiseptics is becoming more and more general in the treatment of wounds of various kinds. The discovery of the action of malignant germs in causing dangerous conditions where wounds occur has brought about the invention of many antiseptic liquids and lotions, and these have wonderfully facilitated the healing of wounds and rendered them less dangerous. In former

generations wounds were quite generally bound up and left to heal themselves. We do know, however, in bygone centuries some little attention was given to dressings that were believed to help the wounds to heal. For instance, in the story of the man who fell among thieves, and was robbed and beaten and left for dead, and was tenderly treated by the good Samaritan, the record states that oil and wine were poured into the wounds which the unfortunate man had received. Oil does have a hindering effect upon the action of germs, and the same can be said of the juices of fruits. But it has been left for the past few decades to specialise in such treatment of injured surfaces as to give nature a chance to heal without the adverse actions of malignant germs. One of the best agents for accomplishing the sterilisation of wounds is iodine. A method has recently been brought into use for using iodine especially in deep wounds without causing any pain to the patient. This method consists in the use of the atomizer. By this method the iodine spray enters into every crevice of the wound, the fingers of the one who operates it are not stained, and there is no loss of the drug itself as there is when it is applied on cotton and then thrown away. The wound is not touched except by the spray. Sloping or low down surfaces can be reached better by the spray than by the fluid itself. As iodine is becoming to some extent a household remedy at the present time, and as atomizers are in very common use; we pass on this suggestion to our readers with the assurance that they will find in it that which will be of great value, especially when wounds of a deep nature are receiving attention.



WE welcome to our exchange list the *Victorian Massage Journal*, official organ of the Victorian Massage Association. The issue before us is Vol. 1, No. 1, dated September, 1918. This is a quarterly published at 66 Elizabeth St., Melbourne, and contains some very good instruction on health topics.

The Tired Feeling

THE experiment of the stimulation of the muscle of a frog by electricity is well known even to the elementary student of physiology. The muscle is removed from the frog shortly after it has been killed, and, after being suitably fixed, a weak faradic current is applied to it, the result being a decided contraction—the ordinary work of the muscle. If the electric stimulus be repeatedly applied it will be found that the contractions become weaker and weaker, and finally the muscle will not react in the least. It might be thought that the muscle is exhausted, that all its energy had been expended, but such is not the case, for if it be washed with a weak salt solution, it will again react to the electric current. The washing of the muscle is similar to what takes place when we rake the ashes out of the fire. The removal of the waste products of combustion from the stove enables the fire to burn more brightly, and the washing of the muscle enables it to contract more forcibly. Tiredness does not thus always signify the exhaustion of our energies; it frequently and mostly means the accumulation of waste products in the blood and tissues. Hold the arm out horizontal to the body for a few seconds and an aching soon results; rest the arm by the side, the waste products are removed by the blood, and the muscular action can be renewed. After running, walking, or any brisk exercise, a tiredness may quickly come on, but if we continue the exercise the circulation is increased, the sweat glands act more energetically, and what is often called the “second wind” is the result—waste products are removed and energy again returns. Frequently individuals experience more “tiredness” in the morning hours than later in the day. During the night the circulation is at its minimum and the excretory glands also are doing a minimum amount of work, but when, as the day progresses, circulation increases and excretion improves, the physiological ashes are removed and

vigour returns, more or less. Many resort to stimulants in order to rid themselves of the “tired feeling,” but this is exceedingly unwise. Dr. Haig points out that headache caused by uric acid can be removed by an extra dose of the poison. When the blood is overcharged with the poison, the latter crystallises out into the tissue, leaving the blood comparatively clear for a short time, hence the relief. The uric acid, however, is soon into the blood again, and the headache returns.

“It follows,” says Dr. Haig in writing on this subject, “that meat is a stimulant because of the acid salts it contains, for uric acid itself is one (as may be demonstrated by swallowing a few grains of it), and this is a chief stimulant in beef-tea, soups, meat extracts, and other deadly decoctions of flesh. Meat, however, also contains a supply of easily digested albumens, and the effect of swallowing animal flesh is that digestion is stimulated and circulation improved by the acids and acid salts, so that the albumens are quickly digested and rendered available. As a result, the meat-eater is sooner in a position to evolve larger quantities of force than the man who gets his albumen—perhaps exactly the same in amount—from a less stimulating source.

“But there is another side to the question, for in so far as this effect of flesh is due to stimulation, it will come to an abrupt end. . . . The albumens being rapidly available, it follows (other things such as quantity, being equal) that these albumens are also more quickly worked off and dissipated than those having a less stimulating origin in cheese or vegetables.

“It therefore follows that a meal of meat, as compared with a meal of milk, cheese, and bread, equally rich in albumens, is like the force in an explosive oil, as compared with the same amount in a slow-burning oil.

“And the man who has lived on flesh, though possibly more lively and energetic at first, will find himself at the end of

stimulation and available albumens, and faced by rapidly falling urea and increasing fatigue, some time before an opponent, whose precisely similar allowance of albumen was drawn from other sources.

"Stimulation is not strength, but force rendered a little more quickly available ;



"AS WE HAVE BORNE THE IMAGE OF THE EARTHY, WE SHALL ALSO BEAR THE IMAGE OF THE HEAVENLY" I COR. 15:49.

and it is invariably followed by an exactly corresponding amount of depression, when the force is used up and must be replaced.

"Again, the meat eater whose blood is temporarily cleared as the result of acid stimulation has not, therefore, got rid of that uric acid ; it is waiting in his body and will return in increased quantity into the circulation as soon as the rise of acidity and stimulation comes to an end. Hence this man may, some time before his next meal, have an excess of uric acid in the blood and suffer from fatigue as a result, while his milk, cheese, and bread-

eating opponent, with less uric acid to return into the blood, will escape. . . .

"The man who gets his albumens from a less stimulating source, having no early stimulant, has no subsequent depression, and so probably never feels the want of alcohol at all. Hence it follows that those who take alcohol with a flesh diet, generally very soon give it up when flesh foods are relinquished, and smoke very little also, being independent of stimulants. . . .

"Another very common effect of meat-eating, whether alcohol is or is not taken, will be a certain amount of dullness, heaviness, and disinclination for mental or bodily exertion in the morning hours, often associated with more or less irritability and mental depression. . . .

"In fact, the meat-eater is never quite himself or at his best till the evening, when rising acidity clears his blood for a time from excess of uric acid ; and this is, I think, at least one of the factors that has caused our morning and evening hours to grow progressively later as we have drifted into living more in towns, eating more luxuriously, and taking more poisons.

"It is misery to rise in the morning hours if you feel dull, depressed, and unrefreshed ; it is a pleasure to prolong the evening conviviality when you feel bright and cheerful. Few or none realise that a multitude of such minor grievances, with much waste of good daylight and heavy bills for artificial light, are direct results of wrong habits of eating and drinking."

"*Diet and Food in Relation to Strength and Power of Endurance*," pages 39-42.

We have quoted from Dr. Haig at some length because his investigations show that much of the so-called tiredness is due to waste products circulating in the blood. The excretion of acids, as when one perspires, renders the blood more alkaline, and thus increases the solubility of the nitrogenous waste products, which are consequently more readily eliminated in the urine. Dr. Haig is an advocate of the higher proteid standard of 200 grammes ($3\frac{1}{2}$ ozs.) or more daily, and thus introduces cheese as an albumen food. Excess

of proteids, however, even from the vegetable kingdom, will have a similar effect on the blood and the circulation as flesh foods, but to a less degree. Undoubtedly there are other impurities in the blood than those of the nitrogenous waste products. The decomposition of foods in the alimentary canal, due to the action of germs, especially where there is constipation, produces by products which throw impurities into the blood and produce tiredness, languor, and mental depression. Foods that upset the action of the liver—excessive fats and sweets rich foods, foods cooked with fat—interfere with the formation and purification of the blood.

Sufficient has been said to show that the "tired feeling" does not necessarily mean that more food is required for the production of energy; in fact, very often a great reduction in the amount of food increases the feeling of well being; this was certainly so in the now worldwide-known experiments of Professor Chittenden of Yale University.

Real tiredness, however, often exists as the result of organic disease. In diabetes and Bright's disease, for instance, much of the nutriment that should supply the tissues of the body passes out in the urine; in consumption the tissues themselves undergo combustion and fill the blood with waste products, producing not only real tiredness but also fever. In anæmia, lack of iron in the corpuscles—the element so much needed to carry the force-giving oxygen to the tissue—produces real tiredness. Real tiredness is often due to exhaustion of the nervous system, as in neurasthenia. Cancer and many other organic diseases produce real tiredness, exhaustion of the blood and tissues, by interfering with the many and different life-giving functions of the body.

W.H.J.

DO not discard your rubber hot-water bag because of a small hole; cut a strip of adhesive tape to fit, heat it slightly, and press over the hole. It will last a long time; when the bag leaks again, procure another piece of adhesive tape.

Ringworm

RINGWORM is an exceedingly troublesome parasite and infectious disease. When it occurs in a family, preventive measures should at once be adopted with the uninfected children. The hair should be cut short once a week and an antiseptic soap should be freely used every day. When the disease arises, some antiseptic application should be given. The trouble is that they are not usually rubbed in as thoroughly as necessary; each spot should be rubbed thoroughly with the antiseptic ointment (using the thumbs) for twenty minutes. The following is one of many good applications:—

R. Oleate of mercury 40 grains
Salicylic acid 10 grains
Lanoline & vaseline of each half an ounce

The strong and weak tinctures of iodine (equal parts of each) make a good application. The most successful treatment is the use of X-rays, but this of course requires skill and experience. This treatment reduces the average duration of the disease to about one-eighth of its usual length.

W.H.J.

Chicken-Pox (Varicella)

CHICKEN-POX is a very infectious disease and spreads from child to child very rapidly. Children are liable to communicate the disease for about three weeks after the scabs have healed. The disease appears first as little red spots all over the body, quickly succeeded by small blisters which break and form into scabs. Successive crops appear, and the disease may last many weeks. Children should be prevented from scratching the parts, for this will mean the formation of large scabs and perhaps permanent marks may remain. The disease is of a trivial nature and requires practically no treatment. Irritation of the skin and itching will be relieved by sponging with tepid boracic lotion (dessertspoonful of boracic acid to pint hot water) or by a two per cent solution of carbolic acid (three teaspoonfuls

of carbolic acid (liquid) to a pint of water, thoroughly shaken in a bottle). When there is much eruption on the scalp the hair should be kept short. The clothes next the skin should be changed frequently. Daily sponging with tepid water is advantageous. The disease will run its course, which is a very variable one, whatever treatment is adopted. Drugs have no beneficial results whatever.

W.H.J.

Thrush

ONE of the great worries of a mother with a young infant is the development of thrush—little white or greyish specks about the mouth, tongue, and throat. It must be remembered that it is a germ disease, and is more likely to be developed in children fed on the bottle than by those fed at the breast. Great care should be exercised in having the bottles and teats thoroughly clean. After thoroughly cleansing in hot water, they should be allowed to remain until wanted in water that has been boiled. In bottle-fed babies two bottles are thus necessary.

The "comforter" that dangles over the child's clothes is undoubtedly one great source of infection; it is very difficult to keep it free from contamination by germs, in fact almost impossible.

In treatment it is necessary that the bowels be kept open with a dose of castor oil. Generally a mixture of soda and rhubarb is recommended where there are any signs of indigestion. Some local application is necessary, which should be made with a soft camel's hair brush several times a day. One of the best is permanganate of potash (about two grains to the ounce). Add half a dram of the crystals to four ounces of water, and use half a teaspoonful of this solution to four tablespoonfuls of water. Glycerine of boracic acid is a good application. Chlorate of potash and borax (ten grains of each) in one ounce of water sweetened with a little glycerine is also excellent.

W.H.J.

Sunstroke, or Heat Apoplexy

EXPOSURE to excessive heat, especially where ventilation is poor, and particularly on the part of those addicted to alcohol, often results in sunstroke (heat apoplexy, as it is often wrongly called). The symptoms are giddiness, nausea or vomiting, and attacks of syncope (fainting). In severe cases the temperature runs very high and collapse may result. After-effects are common, such as mental irritability, loss of memory, sleeplessness, and headaches.

The patient should be placed on his back in as cool a place as possible, all clothing loosened, and cold water applied freely to face and chest. After recovery from the first symptoms, a brisk purgative should be given. Excessive clothing and poor ventilation must be remedied. The lining of the hat worn should be red or orange to prevent recurrence. Where the temperature is high, cold or iced baths should be given or the patient rubbed with ice or placed in an ice pack if the bath is not available. The temperature should be taken in the bowel and when reduced to 103° F. the cold applications should cease, as there is danger of a collapse. Patient should be wrapped in blankets and put in a quiet room to sleep. Hot drinks may be necessary to stimulate if the temperature runs down quickly and there are signs of collapse. If breathing stops, as it sometimes does in severe cases, artificial respiration should be resorted to. After recovery, to prevent headache, insomnia, etc., diet should be restricted, all alcoholic drinks and tobacco should be prohibited, and mental rest should be enjoined. All eye strain should be avoided and glasses should be worn if necessary. Smoked or tinted brown or yellow (not blue) glasses should be worn outside the house, even though the glare is not noticeable. W.H.J.

IT is cheaper to buy garden seed by the ounce, than by the packet. There is very little difference in price, but a vast difference in quantity.

Headaches, and What to Do For Them

HEADACHE is a symptom, and not a disease. It is one of the most common nervous symptoms, however. More than fifty per cent of women are subject to some form of headache, twenty-five per cent of men, and from ten to fifteen per cent of children. Headaches increase gradually through the developing periods of life to full maturity.

Nearly every woman to-day, from the highest to the lowest, has her headache powder near at hand, ready for immediate use. There is no doubt that the swallowing of so many unknown mixtures is a common cause of headache, for no drug can cure the symptom. It only obscures it, or, by depressing the nerve- and brain-centres, causes the mind to become unconscious of the pain, without removing the cause. Thousands of headache cures on the market to-day are a curse to the present generation. Many of them contain opium in some form, and are a direct agent in forming the opium habit. Some contain cocain, and are equally dangerous preparations. Antikamnia and all like pain-killers should be avoided. A headache treated with drugs is only made a more frequent condition, and after the headache is past, the depressing influence of the drug must be recovered from. Many take headache powders at night, and are sick at the stomach the next morning or the next day, with no appetite, and a feeling of languor and good-for-nothingness. The after-effect fully balances the temporary relief that may be experienced. Headache cures guaranteed to cure in five or ten minutes are dangerous mixtures, and should be avoided.

Reflex Headache

Causes.—Diseases of the stomach and bowels are a very prolific source of headache. Hyperacidity of the stomach, fermentation, and poisons in the stomach from retained or decomposed food, intestinal fermentation, constipation, dilatation of the stomach, and prolapsed

stomach and bowels are the causes of a large share of the headaches so common to-day. Increased acidity of the stomach irritates the delicate walls of the stomach; dilatation of the stomach causes retention of food, followed by decomposition, and absorption of the poisons by the blood, which in turn irritate the nerve-centres of the sympathetic system as well as of the brain. Prolapse of the stomach and bowels stretches the nerves connected with the solar plexus behind the stomach and the fibres connected with the semi-lunar ganglia and lumbar ganglia. A headache that usually comes an hour or two after eating indicates either increased acidity or dilatation of the stomach, or both. A headache due to prolapse of the stomach and bowels will be relieved by lying down, with the hips elevated.

A sluggish liver, with retention of bile, or a slow elimination of bile along with the fæces, is another cause of reflex headache. Headaches due to disease of the digestive organs are usually frontal headaches.

Ovarian and uterine diseases are the causes of many headaches in women, especially during the menstrual period. Such reflex pains are usually felt at the top of the head.

Eye strain is a common cause of headache in the young, due to defects in the refraction of the eye. Such pains are aggravated by reading or sightseeing, and may be associated with dizziness or vomiting. The pain is most marked at the temples and the back of the head.

Nasal catarrh often causes reflex headache, which is indicated by a dull pain between the eyes and over the eyes.

Treatment.—Remove the cause if possible.

1. For constipation, take a thoroughly cleansing enema. Many cases of headache will be relieved by this measure, frequently in a few minutes.

2. For gastric disorders correct the diet.

3. For dilatation of the stomach, if in the evening, wash out the stomach, or drink freely of warm water and vomit.

4. For prolapse of stomach and bowels, wear an abdominal supporter. This will give great relief. Strengthen the abdominal muscles by exercise.

5. For biliousness, wash out the stomach. In many cases this is all that is necessary. If this is not possible, take

Passive congestion is due to some obstruction, as a tumour, to alcoholism, to heart-disease, and to old age.

Symptoms.—Throbbing of the head, "as if the head would burst," "a splitting headache," increased by lowering the head or by exercise; the face is hot and flushed, the head is hot, the eyes are injected with blood.

Treatment.—Hot enema, hot foot bath,



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

Sears Photo., Melb.

twenty grains of salicylate of soda in the evening, and in the morning a dose of castor-oil (two tablespoonfuls), or a tablespoon of salts in half a cup of water.

6. For eye strain, consult a specialist.

Congestive Headache

In this condition there is congestion of the brain, which may be acute or chronic.

Acute congestion is due to great mental excitement, emotion, crying, prolonged mental effort, fevers, exposure to the sun, tea, coffee, overeating, poisons, heart disease, and Bright's disease.

with a towel wrung out of ice water around the neck and over the face and head. Rest, with the head and shoulders elevated. Abstinence from food. In fevers the headache may be relieved by giving the patient a hot hand and arm bath for a few minutes. In some fevers, such as typhoid, and in pneumonia, it is very difficult to relieve the headache at times, and the pain is due to poisons generated by the disease.

Headache due to increased blood pressure and rapid heart action will be relieved

by an ice-bag or a towel wrung out of ice-water applied over the heart for fifteen minutes, with cold applied to the neck and head at the same time.

Very often sleep is a much more efficient remedy in relieving headache than any drug prescription.

If congestive headache is due to over-eating, the pain may be relieved by fomentations over the stomach and liver. If this treatment does not give relief, the sufferer should drink freely of warm water and then tickle the throat with the finger. Vomiting, by exciting the circulation, may increase the headache for a few minutes, but it will soon subside.

If the headache is due to great mental effort, some form of vigorous exercise will divert the blood from the brain. If headache returns whenever study is taken, the eyes should be examined.

Anaemic Headache

The pain is of a gnawing character, with a sensation of weight, due to the impoverished condition of the blood, following hæmorrhage or any exhausting disease. This type of headache occurs in those who are suffering from nervous exhaustion, from overwork, from sexual excesses, from excitement. The patient is usually pale, and has poor circulation, indicated by cold feet and hands, and fainting spells. In anæmia the blood-vessels lack tone, and are relaxed.

Treatment.—A warm fomentation to the scalp, with cold friction three times a day. Tonic treatment, such as hot and cold to the spine, hot and cold over the spleen and liver, daily morning sponge (if the strength will permit), a wet sheet pack every other day, the salt glow twice a week, outdoor exercise, breathing exercises, and a wholesome, nourishing diet, with abundance of sleep if possible. Fomentations to the back of the neck and upper spine at bedtime. Apply fifteen to thirty minutes.

Headache in Organic Diseases

Bright's disease is frequently aggravated by a severe headache, due to an increased blood pressure. The pain is dull, and associated with a feeling of fullness. This headache is best relieved by the neutral bath at 97° or 95°, or the warm pack. A constant headache may indicate a brain tumour, or a brain abscess. Headache is common in gout, rheumatism, chronic malaria, and alcoholism.

Hysterical headache is a frequent manifestation of hysteria. It seems to increase at the menstrual period. It is usually a localised pain, and is likened to a nail being driven into the head. Relieve with hot compress for ten minutes every two hours, following with cold compress, 60°, changing every fifteen minutes.

F.M.R.





GENERAL ARTICLES

The Art of Not Getting Drowned

EDWIN TENNEY BREWSTER, Author of "Swimming"

How easy it is to drown a child. The water need be no more than three feet deep. Boat or bank may be no more than three feet away, but the terrified little one does exactly the wrong thing; and then if no older person is by,—. Few indeed are the parents of young children who do not carry always at the backs of their minds the haunting fear that some day or other their offspring will fall into the water and not get out again.

I know that in my own case it was a real load off my mind as each of my youngsters in turn passed triumphantly the family swimming test, and could be trusted to take care of himself in any ordinary accident. The memory of that blessed peace moves me to suggest to other parents the method by which I succeeded in teaching all my children to take care of themselves in the water some three years earlier than it is commonly done.

I started all of them on lessons at the age of three—in the bath tub. I am a great believer in the family bath tub as the place to learn to swim, even for adults. For little children it is the only place to begin. A little child will learn more in a week of systematic lessons indoors than in a whole summer of running around the beach in a bathing suit.

We don't half realise how overwhelming to little people is the great out-of-doors with its winds and waves, and its

foolish grown-ups who think it a great joke to frighten the beginner. But at home, in the familiar bath tub, with its pleasantly warm water just deep enough and under mother's encouragement, even the three-year-old soon learns that water is his friend. After that, it doesn't take long for the child to find out that his new playmate will always hold him up as long as he lies still.

Nevertheless, there must always be definite lessons planned out and insisted on. A child at any stage of progress will play all day in tub or pond and never make the least effort to increase his skill.

My own system in outline is this: I used to begin in the winter, with warm water in a warm room, and lessons lasting a half hour or more with frequent rests and with play afterwards. First of all, I taught holding the breath. I began by closing the child's nose with my thumb and finger, not always at bath time, but whenever it came handy. Then I taught him to do it for himself. Next he learned to stop his breathing at will without holding his nose.

Then, very cautiously, I trained the child to put his face in the water. I began with an inch of liquid in the tub, in which the proud youngster ventured to wet just the bare tip of his proboscis. By and by, he immersed his face freely; and before very long he accomplished the remarkable feat of breathing out under

water through his nose, making bubbles like a real swimmer!

It may take a whole winter or even two. All this is in some cases very slow work. A child breathes so unconsciously that it is the hardest sort of thing for him to learn to take thought, but it can be done. My own boys at four used to keep their heads under water for a quarter of a minute. At five, they picked up small objects from the bottom of the tub with their mouths and used to coast down the sloping end of the tub face downward and head first, slide the length of the tub under water, and finally emerge under the spigots.

It seems a small matter to spend so much time over, but remember that a five-year-old who can do even this little, if he falls into the water, will hold his breath till he comes up again. He will not strangle, and he will not sink. That means that his rescuer has another half-minute of leeway at a time when seconds are long. My own little daughter at about this stage got washed off a rock by a big wave. She lay quite still, and as often as her head came up she caught a fresh breath, until in the course of time, the nearest man got around to fishing her out.

When a child can handle himself face down in the bath tub it is time to take him to a quiet pool out-of-doors and teach him the plunge. This means, at the beginning, that, facing towards the shore in water waist deep, he shoots himself along the surface with his body straight and his head submerged. When he has learned this, which should be shortly before he reaches the age of six, he can be trusted on any gently sloping beach in water up to his shoulders. There he will have a glorious time, when other children of his age are only dabbling their toes.

As for floating, children vary greatly. In general, before the age of six, girls can float and boys cannot. But an uncommonly plump and small boned boy will often float as easily as his sister, while not a few girls are as lean and muscular and unbuoyant as any youth. It takes

but a short while to find out whether a child can float or not. If he can, he can learn perfectly well in the bath tub, and do it to perfection the first time in big water. Just as soon as one is sure that a youngster is going to be able to float at all, he ought to be taught the art thoroughly. The child who can float cannot be drowned in smooth water.

Proper swimming, as distinguished from plunging and floating, does not seem to me to be possible to the average child before six or seven years of age. Apparently, the nervous system is still too undeveloped.

But along about the sixth or seventh birthday there comes to the normal child

a rather sudden expansion of muscular control. He stops simply "playing" and begins to learn games. He discovers, often quite suddenly, that a bat can be put in front of a ball, and that there is some relation between the



READY FOR THE KICK

motion imparted to a stone and the place where it will land. Every mother will recognise this stage. When it arrives, the boy can learn to swim. He will learn in a few weeks if he has been started as I have outlined.

My own experience is that from this point on there are two paths toward a mastery of the art. For children who can float—this means practically for girls—the easiest advance is from the floating position, face up. One may teach the back stroke, as given in all the books. Or one may teach the child gradually to twist the body onto one side, still keeping the face up and the head almost submerged, and thus pass to one of the modern side strokes.

The first method I tried in the bath tub on my seven-year-old daughter, teaching the kick only. The first time I took her out of doors she pulled out of my hand, travelled across the little pool, and bumped her head against the bank. My star pupil with the other method was

a ten-year-old girl whom I had to teach out of doors. She could not swim a stroke, and hadn't been willing to try. On the sixth half-hour lesson she covered a quarter of a mile.

For the typical boy on the other hand, the starting point is the plunge. One



FINISH OF THE KICK

gets him, more or less gradually, to turn his face round till his mouth comes above water. Modern practice is to teach him first the crawl stroke. This also is in all the newer books. The old breast stroke, once the only efficient method, is now quite obsolete. Even in the old days, however, boys rarely learned with it. It has always been and still is, the worst of all possible strokes for the beginner.

My own experience is that really young swimmers, before seven or eight, have not enough voluntary control over their members to learn any proper stroke. I have, therefore, while my children were little, let them swim by a nondescript sort of action as nearly as possible like the instinctive movements of creeping. One or two years later, I have started over again with the proper crawl.

To teach this beginner's stroke, let the pupil lie flat on his stomach on the floor and wave his legs up and down, alternately bending and straightening the knees. Let him twist his body somewhat to one side at the waist, and the head still farther toward the same side at the neck, until the face comes almost into the position which it has when one lies on the back. Try this in the bath tub,

increasing gradually the depth of the water, until nothing comes above the surface except the nose and mouth, the moving feet, and one shoulder. If the child has not already learned always to take his breath quickly through the mouth and to release it slowly through the nose, this lesson must now be thoroughly learned. Teach him also to paw the water alternately with his hands, reaching out as if he were trying to pull himself along.

Whenever the child can, at the same time, paw with his hands, thresh his legs up and down from the knee, without much if any bending at the hips, and breathe comfortably, he can swim.

He will not, to be sure, swim at all well. But he will flop along for ten yards or so. And that much, in more than nine cases in ten, is all one needs to save his life. When one falls off the pier or gets spilled out of a canoe, he rarely lands two yards from his support.

"The proof of the pudding is in the eating." I worked this idea out on my older children and put it into practice on my youngest. He, at six years, could swim twice as many yards, and so could be trusted anywhere along the shore of quiet water. At seven, he could do a hundred yards straight away, and had a resting stroke that would keep him afloat for half an hour. At eight, with the wind on shore, I used to turn him loose in a little sail boat, alone on a big pond and dismiss him from my mind. At thirteen, he covered a measured mile in an hour and five minutes, and would have done at least another rather than drown.

That is what comes of beginning young, and of taking pains, and of utilising a bath tub.—*In American Motherhood.*



BEGINNING OF BREAST STROKE

Bathing the Baby

MARY L. REED, B. Sc.

ONE bath every day; sponge bath until cord heals; later, tub bath. Not within an hour after feeding; not when greatly fatigued; tub bath preferably in morning, before second feeding; otherwise, before third or evening feeding.

In warm weather an additional sponge bath at night (same as lower temperature of morning) is advisable. In hot weather give two or three sponge baths 70° to 90° F., according to age, in addition. In cold weather, an oil rub at night may be given instead of sponge bath. A "sponge bath" is given with a wash cloth; sponges are never to be used, because unsanitary.

Temperature for bath is always to be regulated by bath thermometer. Changes to be gradual, by 1°F., from day to day.

Until sixth or eighth month, tub bath 98° to 100° F., followed by cool. Then reduce 1° a fortnight, to 90° F.

After second week, a dash of cool water (90°F.) applied by hand to back (begin at lower end), chest, and buttocks. At two months lower by 2° F. each month to 80° F., as long as baby reacts well—skin rosy and warm, not blue lips, goose flesh, cold feet.

Cool water may be added slowly while baby is in tub, but not hot water.

Giving the bath: before beginning to undress the baby, have everything ready, and just before undressing the baby, wash the hands thoroughly. Costume: wash-dress, sleeves to elbow, bib-apron, bath apron. Room: no draughts; temperature about 70° F. (65°-72°).

Equipment: Clean tub or basin filled with bath water; enamel, tin, or rubber tub may be used; after six months, large tub may be used. Heavy bath-towel may be placed in bottom of tub. Prepare tray with toilet articles and rolled gauze. Bath thermometer; supply of hot and cold water. Fresh wash cloths for face and body, kept only for baby. Soft face towel; two large bath towels spread on nursery table.

Laid out in order for dressing: dry, warm clothes, petticoat placed inside of dress; wrapper or shawl.

Allow fifteen to twenty minutes for undressing, exercise, bathing, dressing. Allow five to ten minutes for rubbing and exercise. Allow two to ten minutes for clearing away after bath.

Undress the baby on the nursery table; have a large, warm, Turkish towel under him; leave the diaper on, unpinned, until put into tub.

Rubbing. Half minute to two minutes. Use only the hand until 9-12 months. Hands warmed; anoint with cold cream or cocoa butter, if rough. Give 2 to 6 long strokes, each arm and leg, beginning at extremity and rubbing towards the heart; 4 to 6 long strokes down back; 4 to 6 long strokes across chest; 4 to 6 long strokes on abdomen, gently, beginning at lower right, and ending at lower left; 2 to 4 strokes on ribs, from back to front. Fill tub to depth covering abdomen of baby; note temperature with thermometer. Wrap the towel around the baby and put on cuspidor to urinate. Keep towel around the baby until ready for tub. Ears, eyes, and head are washed before going in the tub; also buttocks, if soiled, using the diaper basin and cloth, not the bath water.

Ears. Use sterilised cheesecloth or old soft muslin squares, little or no soap. Use warm water from tub. Wash carefully in all creases and behind the ears; let no dirt remain. Apply albolene or liquid vaseline for scurf. Never use a pointed instrument; "never put anything smaller than your elbow in the ear." Put soiled gauze in tissue paper receptacle.

Nose. Clean each nostril with a fresh cheesecloth square rolled to a point. Dip the gauze in the liquid vaseline or albolene, and then push gauze gently into the nostril and twist around, until nostril is clean. Never dip the gauze a second time into the oil; put used gauze into tissue

paper receptacles. If the nose accumulates dirt or mucus during the day, repeat.

Eyes. Use a fresh square of sterilised cheesecloth for each eye. Wet the gauze in the weak boric solution (2 per cent), and squeeze a drop into the corner of the eye. Wash eyelids gently, toward outer corner, and carefully remove dirt or secretion. Never put gauze in solution a second time; put gauze into tissue paper receptacle. If eyelids are sticky or with slight secretion, anoint with vaseline, avoiding eyes. Repeat boric wash at night, or at hourly intervals, if eyelids are inflamed. Report severe



ENJOYING
THE BATH

redness or discharge to physician immediately.

Head. Use face cloth, soap, water from tub. Soap wet cloth and rub over head, avoiding pressure over fontanel or getting soapy water in eyes. If head has scurf, anoint at night with vaseline or olive oil, and put on a thin muslin cap. Never use a comb or harsh rubbing.

Body bath. Note temperature of water and modify with supply at hand to exact degree. Place the baby in the tub, supporting the head and upper back with left hand. Baby may be lowered in the towel, if afraid. If giving only sponge bath,

hold head face upward over basin to rinse, and wash and dry each part of body separately. Rinse the head several times very thoroughly with cloth. Wash the body gently; use a little soap two or three times a week. Wash under arms, in creases of neck, thighs, fingers, and toes; turn baby over and wash the back.

After six months, baby may splash or attempt swimming for one to four minutes. Lift baby on to bath-apron and give cool sponge very quickly. Lay baby on table and wrap in dry Turkish towel. Wipe face and ears with soft face towel; pat body dry with towel. Dry the head thoroughly.

Do not rub with towel before ten months. Dry carefully under arms, in creases of neck, thighs, knees, fingers, and toes. Remove wet towel. In warm weather, after two months, allow an air bath one to three minutes, patting or gently rubbing skin with the hand.

Avoid the use of powder, except in hot weather, in creases, for fat babies; powder clogs the pores. Put zinc ointment or albolene on chafed places. If there is any bulging of the umbilicus, put two strips of surgeon's plaster across, to hold in place and prevent rupture.

During first four or six weeks, gently draw back foreskin in boys and cleanse with boric acid; wash genitals of girls with boric solution; apply vaseline. Later, general bathing is usually sufficient, and special attention is not desirable. Dress with dry, warm clothes; brush hair; put on wrapper or shawl.—From the "Mother Craft Manual," Copyright, 1916, by Little, Brown, & Company.

IN order to preserve good digestion, avoid iced drinks at meal-time. Iced drinks, if taken at all, should be swallowed very slowly, and not at meal-time.

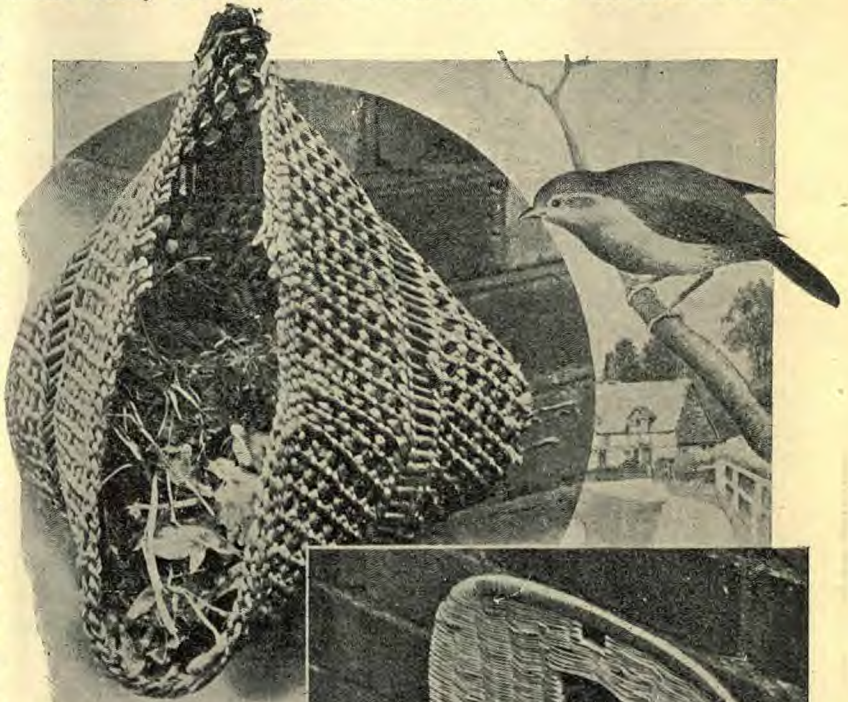
Advice to Young Parents

By an old Nurse

EVERY true parent longs to do the very best for the little ones, and many keenly feel their lack of experience. They want to know how to keep and make their children strong and healthy. What is the best thing to accomplish this?—Regularity! You have noticed that regularity causes the millions of heavenly bodies to swing in their orbits in space without colliding. You do not realise how many collisions in homes can be avoided by the same means. Fixed laws govern and control all creation, of which our bodies form a part.

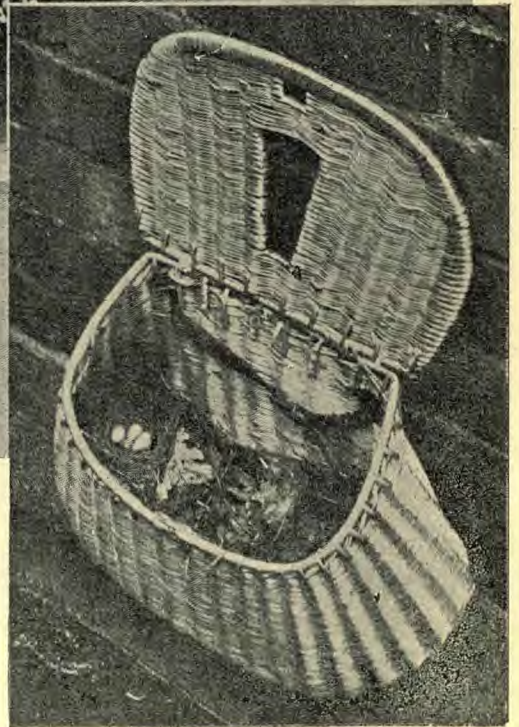
Disease, with all its miseries and tortures, has been caused, primarily, by breaking the physical and moral laws that govern our being. Therefore in order to rectify and restore, we must obey Nature and thus remove the cause of the trouble. All who have practised regularity in the feeding of their little ones, both in the matter of time and quantity, have recognised its benefits. But when baby is off the bottle and the breast, many abate this rule, having an idea that "children like chickens should always be pickin'." But children's interiors and chicken's are very different. Irregularity is a great mistake. If you mean your child to grow up with a sound digestion—a possession worth more than thousands

of pounds—give him at the same time every day three regular meals of nourishing, sustaining foods, varying them to suit the seasons. You will then have no



TWO DESIRABLE
FREEHOLD RESIDENCES

PEGBASKET LODGE
AND
CREEL COURT



cause to complain of his lack of appetite when mealtime comes. Lollies and cakes eaten between meals are the

chief cause of lack of appetite, irritability, and skin eruptions, besides undermining Nature's resistive forces. Then, if an epidemic comes along, the child will more easily fall a prey and have less chance of recovery. In how many thousands of cases Providence is unjustly blamed for the little ones' death.

Another thing, if children were taught to control appetite, to eat for strength only, and at the proper times, there would be no gluttons or drunkards—though wine-shops stood at every corner. The majority of parents allow and even tacitly encourage self-indulgence instead of self-control. The doctors in charge of our mental hospitals will tell you that the chief cause of so much insanity is lack of self-control. It causes most of the crimes, the murders, robberies, divorces, immorality, and the countless miseries that spoil our world to-day. On whom, then, does the chief responsibility rest? On the parents. Is it not a very serious fact? What your children are to become rests largely in your hands, fathers and mothers. They come into this world totally ignorant and helpless, and as these young twigs are bent so the trees will be inclined to grow. But they need training, and that means intelligent watchful care and loving reproof and correction. Be certain of this: no work brings larger returns or greater rewards. Right habits form right characters, and bad habits form bad characters. Therefore practise regularity in regard to meals.

FLORENCE M. HARKER.

Rules for Health

FOR the prevention of diseases of metabolism, including obesity, diabetes, gout, and rheumatic disorders, the following simple rules are suggested by Greely in the *Wisconsin Medical Journal*:—

1. Thorough mastication.
2. Reduction to a minimum of meat, starches, and sugar.
3. Increase in amounts of fruits and vegetables eaten.
4. The use of only one cereal at a meal.
5. Living [and eating] more slowly.

6. The cultivation of a hobby—a resource for happiness when the real work of life must be suspended.

Starvation

"I MAY remark," says Dr. Haig, "that those who starve themselves may feel very bright and well at first, after the usual gastric symptoms of discomfort give way, for they are being nourished on a stimulating flesh diet from their own tissues, and are saving some of the force usually expended on digestion.

"Later on, however, when their reserve of albumens has long been used up, and the tissue albumens get low, they discover that they have been living on capital which should never have been touched, and which it is difficult to replace; for with all their forces, including that of digestion, at a low ebb, it will take a comparatively long time to assimilate sufficient albumens to keep the machine working, as well as to replace lost capital. These considerations sufficiently account for the fact, of which I have seen many instances, that those who put themselves on an unaccustomed diet, often dangerously diminish their allowance of albumens for some time before they discover that there is anything wrong, and great difficulty is then experienced in getting back to physiological levels.

"Thus while ten grains of albumen per pound of body weight are required for an active life, nine grains per pound are about the minimum that an adult can continue to take with safety.

"Where in the case of sickness there is a diminution in the amount of albumens taken, there should also be a lessening of the force expended, otherwise there will be loss of strength and vitality. Where the digestion is good, loss of weight means that the albumens should be increased, and this can be readily done by increasing the amount of milk and eggs taken. Where the diet is much lessened in quantity, rest in bed is generally advisable."

Cows' Milk as a Solid Food

Diet Specialists Urge Its Use by Children and Adults

THAT milk is a solid food and not merely a pleasing beverage is the statement of the food authorities at the New York State College of Agriculture. They say that although milk is swallowed as a liquid it almost immediately becomes a solid food, for a process similar to cheese making takes place in the human stomach, just as

is urged as a wise move, especially in such a time as that in which we live.

It is recognised that there are some adults and even some babies who have difficulty in digesting milk. This difficulty occurs in the liquefying of this curd, which must be liquefied as it is digested. There is a simple way of correcting this difficulty—that is to boil the milk. The curd formed from boiled milk is not nearly so large or so firm as that from fresh milk.



MILK PRODUCTION UNDER IDEAL CONDITIONS

when junket is added to the milk it thickens into the rather firm curd which is the solid food of milk. In the cheese factory this curd is made into cheese; in the stomach it is digested and becomes assimilated into body tissue. This curd may not seem as solid a food as meat, but it does the same work in the body, and has the added advantage of passing through the digestive process without as much of the decay that meat or other foods undergo. To let milk replace meat in the daily food in a measure

Milk is the kind of solid food which should be fed to little children, for it is pointed out that they can use it to much better advantage than they can meat. It is a matter of common observation that little kittens are subject to fits when fed meat, and although little children may not be so seriously affected, they may be made nervous and irritable by it. It is even suggested that the crossness of some grown-ups may be due to too much meat.—*American Motherhood.*

Rational Diet

H. W. MILLER, M.D.

AN intelligent knowledge of foods and food values is essential to proper dieting. The day is past for fads in the matter of diet. We place no confidence in the raw-food advocate, in the particularising of certain foods as the only essentials for the nutrition of the race, and in like fads too numerous to name. We must be guided by certain principles that are as fixed in their relation to diet and health as are the laws that govern the movements of the planets.

Man, being the highest order of creation, should give primary consideration to the proper provision of that which is to constitute his physical being, and provide that which his body is adapted to digest and assimilate. The world was created and adapted to serve every physical need of mankind, and the purpose of the Creator is exemplified in nature. Air was created in just such proportion of oxygen and nitrogen as the lungs could assimilate and appropriate for the needs of the body. The right proportion of lung capacity was given to man; and no improvement can be made on the mixture of gases to afford a better atmosphere for respiration than that which the Creator provided.

Thus we recognise that the Creator had a plan for man, and that He provided man's environment, even to the extent of outlining his occupation. We therefore should study the adaptability of creation, and especially learn primarily what has been told us concerning the human organism, its possibilities and limitations, as revealed in the working out of God's purpose and plan for the human race.

We read that God said, "Behold, I have given you every herb bearing seed, which is upon the face of all the earth, and every tree, in the which is the fruit of a tree yielding seed; to you it shall be for meat." And He provided exactly the same kind of diet for the animals. We have no record of the creation of any carnivorous animals. And when we are

pointed to the restoration of all things to the Edenic state, we read of the lion eating *straw* like the ox.

The fact that men have been able to live for a period covering a number of years subsisting partially, at least, upon flesh meats, does not carry any weight of evidence that this is the diet best adapted to the human stomach, any more than does the fact that a man can subsist on beer instead of water, and still live a number of years, prove that beer is better adapted to sustain life than water, which God has so abundantly provided.

Fortunately science sustains, as we should naturally expect it to do, God's plan for His creatures to subsist on a vegetarian diet. It should not be expected that anyone would be able to thrive as well upon a diet for the digestion of which the stomach and digestive organs are not adapted, as upon the food substances which those organs were specifically created to handle. Again, we see the beautiful harmony existing between the animal creation and the vegetable creation—how the one is perfectly adapted to the other. What plants store up in the form of carbon supplies food for animals. What animals throw off as waste—nitrogenous products and carbon dioxide—furnishes food for plants; and what plants throw off as waste—namely, oxygen—is necessary to the life of animals. We cannot take or obtain nourishment from inorganic substances, and are therefore absolutely dependent upon plants as the medium between animals and the inorganic elements. Plants do construct from carbon, oxygen, phosphorus, and other mineral elements organic compounds which animals can ingest, reconstruct, and build up into tissue. And so we might continue to enumerate points of adaptability of the one to the other.

At best, flesh must be regarded as a secondary food, being composed of organic compounds constructed very largely by

the storing up of the carbohydrates derived from vegetables, in the form of glycogen in the liver and muscles. The fats derived from cereals are stored as fats in the animal, and the various proteins are found in the tissues of animals as albuminous globulins and other forms of protein. These primary foods used in the construction of the flesh of animals are far preferable to eat before passing through the organism of an animal.

There are two chief factors to consider in diet—one is to guard against too great variety of foods, thus maintaining the diet as simple as possible; and the other is to guard against a diet so simple as to be one-sided, being deficient in some of the essential elements. In reference to the first point, it is clearly evident that the Western nations have indulged in too great a variety, and have had too high a protein diet. The Orient illustrates practically how, from cooked rice combined with a few green vegetables, muscles, fibre, bone, nerve tissue, and the other fundamental chemical constituents are built into the human body.

In reference to the second point—the danger of a one-sided diet—certain dietitians have endeavoured to reduce their flesh by a strictly albuminous diet. While they succeed in reducing flesh, it has been noted that they develop undesirable symptoms, as fatigue, faintness, and nerve excitability; also formerly, when persons suffering from diabetes were treated with the albumens and a fat diet, frequently pa-

tients died of coma, owing to the acid poisoning. By the addition of carbohydrates a great improvement in these cases has been noted.

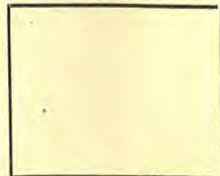
It has been proved by Atwater that more albumen is absorbed when mixed with carbohydrates and fat than when the same amount of albumen is taken without the other two food elements. Likewise, the absorption of carbohydrates and fat is more adequate when the diet is properly balanced with the necessary amount of protein combined with it.

It does therefore appear that the mother of the household, who has to do with the selection of food materials and their proper preparation, since she holds the health of her household so largely within her grasp, should possess the information which we to-day have abundantly in the valuable literature existing upon this subject. An interest in food values and food combinations gives better results in promoting race betterment than any other single factor. Proper eating and adequate nutrition are essential to the attainment of success in almost any vocation in life.

WHEN potatoes come home from the market—this is to the city dweller who buys in comparatively small quantities—put them in the sink and scrub them quickly, using plenty of running cold water. This saves a dirty vegetable basket, the daily washing of potatoes before paring, and badly stained fingers.

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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.

216. Necessity for Water; Hot Water

"E.O.M." writes: "All my life I have had very little desire for drinks of any kind; in fact some days I could go all day without a drop of any kind. I am told I should drink a certain amount every day for my kidneys. Is that so? I mostly drink hot water when I do drink, and lately I have taken it just before my meals. Is it harmful to drink it then? I never drink tea or anything with my meals. Please tell me whether I should drink, how much in a day, and when is the best time."

Ans.—The system requires water in order to keep the blood healthy. Water dissolves the waste products and thus helps their elimination through the kidneys. Almost all food taken contains a large percentage of water, and amount of thirst depends largely on the nature of the food. Flesh foods contain 75%; vegetables and fruit 90% or more. If dry foods are taken, more water will be necessary and this will be evidenced by greater thirst. Vegetables, fruits, milk, porridges and puddings, soups, etc., all contain a large percentage of water, and consequently with such foods less water is required. Flesh foods increase thirst because they increase the waste products, the poisons, in the blood, and consequently more water is required. Alcoholic drinks, pepper, spices, salt, and mustard all cause irritable condition of blood and increase need of water. The amount of water re-

quired thus depends on the kind of food taken, the amount of exercise, and the climatic conditions. The drinking of pure water helps to keep the blood healthy and increases the action of the kidneys, liver, skin, and bowels. Some water should be taken on retiring, first thing in the morning, and between meals. The amount will depend on the circumstances already stated. A glass full—half a pint—should be taken three or four times a day. A little fruit juice may be added. Hot water before meals debilitates the lining of the stomach but is helpful in catarrhal conditions. If water be taken within two hours after a meal it should be hot. Cold water at other times acts as a tonic. Where there is constipation, water should be taken freely. In dropsy it is inadvisable to drink more than thirst indicates, and in pleurisy with fluid it is often advantageous to prohibit water altogether for a time. In feverish conditions water is very beneficial.

217. Thread Worms

"Gatton" asks for a remedy for the above. She and her children all suffer severely.

Ans.—There should be strict cleanliness. The hands and nails should be thoroughly washed to prevent re-infection. Salads, water-cress, and other raw vegetables should be avoided. Excess of starchy foods should also be avoided.

Adults should take a spare diet and keep the bowels well open, and take two ounces of compound decoction of aloes before breakfast and a pill of two grains of extract of quassia after each meal. An adult will find nine-grain doses of sulphur daily effective; a young child should have one and a half grains three times a day. Salt enemata should be used after the bowels are open—a tablespoonful of salt to half a pint of water in older children and adults, and about half the quantity in younger children. In giving the injection elevate the buttocks and use a funnel and rubber tube. Infusion of quassia with or without the salt is a very effective injection. Pour half pint boiling water on a small handful of quassia chips and allow to stand for one hour. One grain santolin at night and a dose of castor oil in morning every night for six nights is a useful procedure in children. Weak white precipitate ointment applied locally will relieve the itching. A good enema can be made by adding two teaspoonfuls of oil of turpentine and two grains of santolin to six ounces of starch mucilage. Use every other night for a week.

218. Chronic Constipation

"Mrs. F. P. (Southport)" asks for a remedy for the above.

Ans.—(1) Rules for good digestion must be adhered to: Thorough mastication of all food; avoidance of foods cooked in or with fat; also avoidance of pastry, new bread, sweets, spices, pickles, pepper, etc.

(2) Tea and coffee are a fruitful cause of constipation. All teas and coffees contain a large percentage of tannin and this is decidedly constipating.

(3) Some of the following should be taken with each meal: Stewed prunes, fruit, vegetables, graham biscuits, puffed wheat. Wholemeal bread should be taken instead of white bread. Bran cakes recommended in last issue of *LIFE AND HEALTH* under "Treatment of Diabetes" are very helpful. A tablespoonful of boiled wheat with each meal is effectual with many.

(4) Drink abundance of water—cold preferably—going to bed, rising in the morning, and between meals.

(5) Avoid use of purgatives as much as possible. Cascara sagrada is the best. When hot enemata are used, they should be followed by injection of half a pint of cold water which should be retained.

219. Malaria

"A.P." asks for a treatise on Malarial fever.

Ans.—All writers on general medicine take up the subject fully, such as Osler, Allchin, etc. "A.P." will get a very good description of Malaria in "Medical Science of To-day," by Wilmot Evans, M.B., B. Sc. The special mosquito causing the disease is confined to certain localities and restricts its wanderings to within a few feet from the ground. In malarious districts rooms built several feet above the ground are immune. Even a hedge of trees or a strip of water will hem these pests in. Those who sleep on board ship at night at a little distance from the shore keep free from the disease. Even the sleeping on shore for one night may mean serious infection. During the feverish stage there must be rest in bed. The diet should be light, water should be given abundantly, and the bowels kept freely open. All changes of temperature and draughts must be avoided. In most cases a cure can only be effected by a change of climate. Quinine is the only drug that gives relief, and this must be given in large doses; consequently it is necessary that a correct diagnosis should be made. If there is any doubt about the complaint an examination of the blood should be made. The ethyl carbonate of quinine—"equinine"—is tasteless, and thus is preferable for children. The dose is the same as that of the hydrochloride, sulphate or bisulphate. Quinine should be given in solution or in uncoated tablets. Coated tablets are often useless and are passed by the bowels unchanged. The quinine in bad cases is given by the bowel after being dissolved in tartaric acid and

added to thin starch mucilage. In mild tertian or quartan (attacks every 3 or 4 days) malaria five grains of quinine three times a day are sufficient. When the symptoms are severe, such as coma, the smaller doses are ineffective, and large frequent doses must be given. Large doses—sixteen grains—may be injected into the muscles and ten grains every hour given by the bowel until the symptoms subside. With this treatment even serious cases recover rapidly. Quinine has harmful results, but those of malaria are much worse; consequently the lesser evil must be chosen. In children in malarious districts often the only symptoms are convulsions; if these occur in children over six months old the disease must be suspected. Large doses by the bowel will usually overcome the convulsions. A child of one year may have five grains by the bowel and two and a half grains every hour till the convulsions cease.

Quinine should be given in small doses for three months after recovery from all attacks of malaria. The uncomfortable effects of quinine (noises in the head) often discontinue after the drug has been taken for some time. In the hot stages hot drinks should be frequently given.

220. Drowsiness After Meals; Cold Hands

"J.J. (Port Melbourne)" asks for information concerning two friends. One dozes to sleep directly after meals, especially the evening meal. The other suffers from cold hands.

Ans.—Big bulky meals will cause sleepiness by drawing blood from the brain to the walls of the stomach. There is generally what is known as "atony (want of tone) of stomach." Bulky vegetables should be avoided. One course with bread and butter would be sufficient. For the evening meal bread and butter with fruit would be sufficient. Granose biscuits with stewed fruit would make a suitable evening meal. The bowels should be kept regular and the body should be sponged twice daily.

Cold hands and cold feet mean a poor circulation. Dr. Haig describes the blood

containing waste products from flesh foods as circulating very slowly through the microscopic capillaries. If the waste products are not got rid of through the kidneys, cold hands and cold feet may be one of the results. Flesh and indigestible foods, lack of exercise, constipation, or poorness of blood (anæmia) will cause cold hands and cold feet.

221. Decay of Teeth in Pregnancy; Circumcision

"A.B.C. (Norfolk Island)" seeks information re the above.

Ans.—Undoubtedly many women suffer from toothache during pregnancy and the teeth are more liable to decay at this time. Digestion is often upset during this period and acids accumulate about the teeth, causing their decay. Outdoor exercise is restricted and this also is an important factor.

As it is impossible to see a surgeon for two or three years, the circumcision of the child can be put off for that time as long as there is no difficulty in passing water and the child does not wet the bed at night.

"Anxious" also asks about circumcision. We would certainly recommend him to have his boy (13 months) circumcised as soon as possible.

222. Badly Set Thigh Bone

"Anxious" also writes to the effect that as a result of a fracture of the thigh his leg is about one and a half inches short and awkwardly tilted, and wants to know if it could be rebroken and set again.

Ans.—We would advise an operation in this case; the shortening of the limb may not be rectified much, but certainly a better position would result sufficiently to make walking almost normal.

223. Numbness of Right Arm

"J.J.B." complains of "a sort of cramp, or 'gone to sleep' feeling (without the tingling sensation) in the right arm. This numbness, which is not particularly painful (although there is a dull, slightly

aching pain much like a mild attack of cramp), comes on through the night when I am asleep and extends from the shoulder to the hand. I have been troubled with it, off and on, for a few weeks and to-day it was present during the day time."

Ans.—This is most probably a local neuritis due to exposure or pressure on a nerve. There are other causes of this symptom, such as tumour, gall stones, or duodenal ulcer, but other troublesome symptoms would also be present. The best treatment is to apply three or four good fomentations to the shoulder at bed time and massage.

224. General Weakness (Anaemia)

"Anxious to be Helped," we judge from her letter, suffers from poorness of blood (anæmia).

Ans.—She should take a glass of fresh milk with each meal. Instead of taking two or three eggs a week, take two daily. Beat them up raw with a little milk. Granola, granose biscuits, and malted nuts should form a part of her food. As there is a lack of iron in the blood, we would advise that citrate of iron and ammonia be taken—as much as will go on a sixpence—after meals. Burroughs and Wellcome make up a good form of iron in sugar coated tabloid form, some five grains and others ten grains in each. Three of the five grains could be taken after each meal instead of the citrate of iron and ammonia. We have seen wonderful results from their use. Sponge the whole body quickly with cold water daily and rub briskly. The iron should be taken for three months, and improvement should be apparent in about three weeks.

225. Stye

"A.H.L." writes that his wife suffers from the stye on the eyelid and asks for reply by post.

Ans.—We do not, except in very exceptional cases, answer by post personally. The trouble is due to unhealthy glands connected with the eyelashes. It is frequently associated with ill health or some

difficulty with eyesight. Often glasses are necessary. In early period of stye, the eyelash corresponding to the stye should be pulled out and hot boracic lotion (teaspoonful of boracic acid in half pint of hot water) freely used. An ointment of yellow oxide of mercury (4 grains to the ounce) should be regularly applied. When matter forms, a small incision should be made and hot boracic acid fomentations used until swelling disappears. When crops of styes continually occur, a vaccine prepared from the matter should be procured and injected, but this is a matter for the medical practitioner to attend to.

226. Well Water

"R.A.W." sends us an analysis of well water made by the government laboratory in Tasmania, and asks us whether it could be used advantageously for ill health.

Ans.—We see nothing in the analysis to warrant the advertising of the water for ill health. As the examiner states, it is "of good quality for drinking purposes;" *i.e.*, it contains no injurious ingredients.

227. Brown or White Bread

"Puzzled" asks why authorities differ so much in regard to the nutritive properties of brown and white breads. Some teach that white bread is almost useless, while others maintain that the white contains more nourishment than the brown.

Ans.—Bulletin 28 (Revised edition) issued by the United States Department of Agriculture, Office of Experiment Stations, gives the following composition of bread:—

	Proteid	Carbo- hydrate	Fat	Water	Mineral	Food value per pound in Calories
Brown bread	5.4	47.1	1.8	43.6	2.1	1050
Wheat bread or rolls	8.9	56.7	4.1	29.2	1.1	1395
Whole wheat bread	9.4	49.7	0.9	38.4	1.3	1140

Atwater gives the following analysis:—

	Water	Proteid	Mineral matter
White bread	35.4	9.5	1.1
Brown bread	40.0	5.0	1.9
Graham bread (Whole meal)	32.3	8.5	1.5

Hutchison gives the composition of wheatmeal and fine white flour thus:—

	Water	Proteid	Fat	Carbo- hydrate	Mineral Matter
Wheatmeal	12.1	12.9	1.9	70.3	1.2
Fine wheat flour	13.0	9.5	0.8	75.3	0.7

The value of food does not depend altogether on the percentage composition in regard to proteids, fats, and carbohydrates. The pulses have a high percentage of nutritive matter but quite a large percentage is not assimilated. Digestibility and the amount assimilated are important factors. A very important matter in regard to bread is the amount of mineral matter, and this counts for nothing in regard to the estimation of calories of heat and energy; they, however, are very necessary for the healthy action of the blood. Without the mineral matters, proper oxygenation of the tissues and a free circulation could not be maintained. What the lubricant is to the machinery, the mineral matter is to the healthiness of the blood. Brown bread cannot be depended on. But the bread that is made from the wholemeal before the bran and the pollard are separated contains all the essential minerals for a healthy reaction and fluidity of the blood. Bread made from wholemeal is certainly more healthful and therefore more nutritive than white bread, whatever the respective calorific values may be.

228. Womb Trouble

"Mrs. J.H.A." is suffering severely from the above.

Ans.—We could not give her satisfactory advice apart from a thorough examination. Curettage, if successful, would increase the liability to pregnancy. We cannot answer the question whether an operation is now necessary. As much rest as possible should be taken, the food should be plain and nourishing, and as much time as possible should be spent out of doors; the bedroom should be well ventilated, and the body sponged with cold water once daily. An injection into vagina twice daily would be helpful—a solution of permanganate of potash in the morning and sulphate of zinc at night. Use as much permanganate as will go on

a threepenny piece and a large teaspoonful of sulphate of zinc to a pint of water with the chill taken off it.

229. Fractured Knee Cap (Patella)

"J.J.G." has suffered from split knee cap, and the movements of the joint are consequently impaired.

Ans.—These cases require a lot of perseverance. At night for one full hour apply very hot and very cold applications alternately. Each hot foment should remain around the joint about ten minutes or as long as it remains very hot, and the cold wet compress about two minutes. Alternate hot and cold applications bring healthy blood to the parts and are consequently stimulating. A thorough massaging of the joint with olive oil is helpful in the morning and after the above treatment.

230. Nasal Catarrh; Postnasal Growths

"H.B. (Wonthaggi)" asks: "1. What is the difference in symptoms between nasal catarrh and postnasal growths in early stages for girl five and one-half years old? 2. Can either of these troubles be cured by home treatment? 3. What are the best methods to induce nasal breathing in a child whose lips naturally are curved widely apart and made to meet only with pressure and so whose mouth is always open?"

Ans.—1. Postnasal growths usually cause more pronounced symptoms than mere catarrh, but mild development of postnasals cannot be distinguished from catarrh by the symptoms. In fact, catarrh and postnasals usually run together. In postnasals the tonsils most probably will also be large. Mouth breathing occurs in both. There is usually a more stupid vacant look in postnasals and often flattening of the nose and greater dullness of intellect than in simple catarrh.

2. In treatment of catarrh poorness of blood, indigestion, or constipation, should they exist, must be appropriately treated. Open air exercise and a well ventilated

bedroom are necessary. A cold sponge every morning, followed by a brisk rub with a rough towel, is very helpful. The nose should be cleansed by an alkaline lotion twice daily, such as, bicarbonate of soda (Howard's), borax and salt (two grains of each) and five grains of white sugar to one ounce of water; or glycerine of borax and rectified spirits, ten drops of each to the ounce. If a solution is made four times the above strength it can be diluted with warm water (three parts) before use. If the above are not successful, an oily spray should be used, such as:—

Ry Mentholis grs. v
 Olei Eucalypti m 20
 Olei Amygdalae up to ʒj (1 oz.)

This should be used twice daily.

Postnasal growths should be removed, and often catarrh is associated with some condition of the nose that needs surgical attention.

231. Milk in Constipation

"H.B." also asks if anything should be added to fresh milk when it causes constipation.

Ans.—Generally speaking, fresh milk is not constipating. Scalded milk very often is so. We would not add magnesia as "H.B." suggests. A little uncooked oatmeal (say teaspoonful) would be better. Take a tablespoonful of well boiled wheat with each meal or bran cakes as recommended in last issue of LIFE AND HEALTH. Granose biscuits, puffed wheat, prunes, vegetables, fruit, and the drinking of abundance of water often help the bowels.

232. Indigestion and Fainting Fits

"Harry" writes: "I suffer badly from indigestion. After every meal I take a teaspoonful of extract of malt or a teaspoonful of wheat-honey (melsitos). This makes me go to stool about three times a day. A little while after taking the malt or wheat-honey, I suffer from flatulence. Which is the best water to drink, water

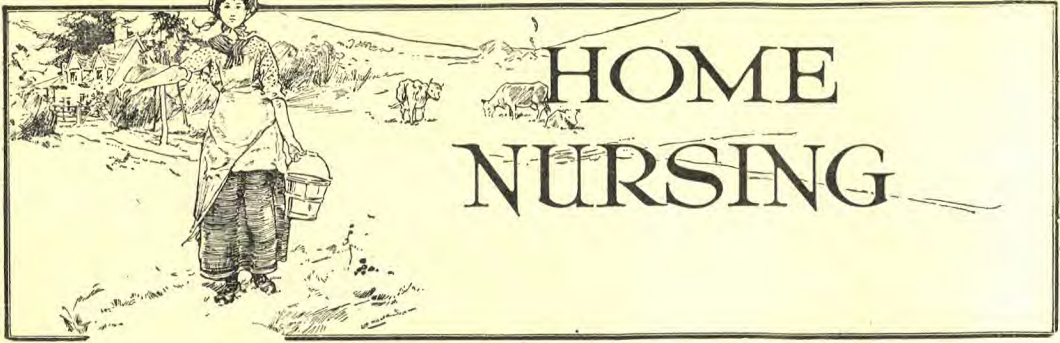
after being boiled or filtered? How do you parch wheat? Could one make a meal of it? What causes fainting fits and what is the best remedy?"

Ans.—We do not think the extract of malt or the melsitos has anything to do with the flatulence; it is certainly very unusual for such food to operate so readily on the bowels. Chew your food well, drink very little with your meals and no tea, coffee, or cocoa. Avoid coarse vegetables such as carrots, parsnips, and cabbage, also legumes (dried peas, beans, and lentils). No fried foods or food cooked in or with fat or grease of any kind should be taken. No food should be taken that is cooked with baking soda or baking powders. Only take three meals a day and nothing between meals. The evening meal could be left off for a short time with advantage. If the teeth are decayed, see a dentist. A full set of teeth is a great advantage. Filtered water is better than boiled water; the latter contains very little air and is insipid. Cleanse the wheat thoroughly, soak till swollen, and then dry in an oven only moderately warm. We would not advise large quantities to be taken. It is good for constipation after being boiled. For fainting fits, lie on the broad of your back without a pillow, and take sips of very hot water. Much flatulence will often cause fainting fits.

233. Diet in Gallstones

"X.Y.Z." asks for the above.

Ans.—Special diet will make but little difference to gallstones that already exist. Gallstones are sometimes passed into the alimentary canal from the gall duct in great numbers and are found in the fæces. As a rule, however, an operation is the only cure. Gallstones are formed through over work of the liver, so that to prevent others forming, or those that exist becoming larger, the food taken should throw as little work as possible on that organ. Animal foods, excess of fats and sweets, and food cooked in or with fat and all rich foods should be avoided.



Rheumatism in Children

To recognise early symptoms of disease is like discovering a fire while a dipper of water will extinguish it.

EMMA GARY WALLACE

CHILDREN frequently have rheumatism although many times it is not recognised as such, because the rheumatic symptoms in children are considerably different from those seen in adults. This was the reason that formerly rheumatism was thought to be rare in childhood. Now we know that so-called muscular or "growing pains" of childhood and many other once-upon-a-time little understood disturbances are of rheumatic origin.

Rheumatism is very rare in infancy, although there are well authenticated cases of it. In fact, it is not common under five years of age, but from that time on, and especially up to puberty, it and its manifestations are met with increasing frequency. As a rule that which appears to be of a rheumatic nature in young infants is in reality one of the food diseases induced by faulty nutrition. Scurvy and rickets belong to this class.

The symptoms of scurvy, rickets, and rheumatism have some resemblances, and so there is danger of confusing one with the other. Scurvy is marked by fretfulness, pallid complexion, and poor nutrition. The knees and ankles are often swollen, and the child lies with the limbs thrown outward from the hips. It cries when handled, and on account of the pain and tenderness may refuse to try to use its own limbs, so that paralysis is suspected. There may be bleeding beneath the skin,

causing discoloured spots. The gums become purple and bleed readily. Sometimes the eyeballs are prominent. Food is taken with difficulty. The child becomes anæmic and ceases to thrive. Usually there is a history of the prolonged use of some artificial or sterilised food. Unless relief is gained the wasting leads to death, either directly or indirectly, because of complications.

The relief of scurvy depends upon the proper regulation of the diet and the giving of fresh milk. A recent authority has said that no one is justified in withholding milk from a child, no matter what the price, on account of the vitamins and other food elements so necessary to life. Fruit juices are also highly advantageous as a body-regulating substance for young children with scurvy. Older children are benefited by the addition to the diet of fresh vegetables, especially potato. Improvement is rapid under favourable conditions.

Rickets is also a disease of nutrition. It, too, occurs most commonly in young children and those fed upon proprietary foods which are lacking in fats and protein and which contain an excess of sugars and starches. This disease affects the bony structure at a time when the growth of bone is most rapid, and so serious injury is done. The bones become unnaturally flexible and misshapen and

the normal structure is quite changed. The head is enlarged, the ribs show a beaded line, the chest becomes narrow, the abdomen prominent, the wrists and ankles symmetrically enlarged, and hands and feet show a markedly curved contour. The child is restless, anæmic, becomes constipated, and the head sweats profusely at night. The child may be fat and flabby or emaciated. Such children are prone to tonsil and adenoid trouble and are of feeble resistance against disease. Although rickets seldom, if ever, cause death directly, they increase early mortality greatly by encouraging predisposition to disease.

The sooner the symptoms are recognised and the proper treatment given, the better. The diet should be regulated by a skilled physician, who will lessen the starches and sugars and increase the fat in the food. Raw eggs, fruit juice, as well as olive oil, and cream, may all be necessary. Hygiene is very important in the way of sunshine, fresh air, and proper surroundings. Children from ten to eighteen or twenty months are most commonly troubled with rickets, and later children in the family are noticeably more susceptible if earlier ones have shown even a slight tendency that way as "the predisposition is sure to increase with each successive child."

Rheumatism has symptoms of its own. The temperature is slightly elevated, perhaps not more than two or three degrees. The joints may be slightly swollen or a single joint as the wrist, hip, knee, or ankle affected. There may be no apparent swelling, stiffness, soreness, or lameness, or again the rheumatic influence may manifest itself in occasional wandering pains and localised tenderness. A joint or a group of tendons or muscles may persist in giving trouble for some time until a tuberculous affection is suspected, but the onset of an acute attack of rheumatism is more marked and the fever more persistent throughout the twenty-four hours. The child may or may not complain of pain or distress about the heart, the rheumatic poison fre-

quently causing an inflammation of the membranous lining of that organ.

The effect of this poison in the blood also causes a condition of paleness and anæmia, both during the attack and before and after. In fact, the symptoms again often suggest malaria in that the attack may be acute enough to be marked by high temperature, intermittent with a condition of chilliness, or cold hands and feet or blue lips and nails with headache and general lassitude due to heavy absorption of poison.

There seems to be no longer any doubt that chorea, or St. Vitus's dance, tonsillitis, and an intense and superficial redness of the skin, as well as certain membranous inflammations as of the pleura, are all associated with rheumatism.

In scurvy the symptoms are largely confined to the legs, save for the gums, and there is an absence of or very little fever. In rickets the condition is quite characteristic, and is not relieved until the cause is removed,—that is, acute attacks do not appear and disappear as in rheumatism. Among the symptoms of rheumatism are anæmia, muscular spasm, tenderness of the joints, ligaments, or muscles, occasionally contraction of the muscles of the neck, and sometimes the appearance of little nodules or bunches beneath the skin from the size of a pin-head to a bean. These cannot always be seen unless the skin is drawn tight, nor do they always appear even then.

If there is a family history of rheumatism or a history of previous attacks accompanied by these symptoms, rheumatism seems to be the logical diagnosis.

Children usually recover from rheumatism if the symptoms are recognised and the treatment prompt and adequate. One of the gravest dangers of rheumatism is injury to the heart. Oftentimes the damage is done before the real nature of the trouble is suspected. One attack of rheumatism is pretty sure to be followed by another or a susceptibility to further attacks. When there is any fever present at all, the child should be kept in bed and the room kept warm. Both rest and

an even temperature are of great importance in protecting the heart of the child affected with rheumatism.

During and after chorea and tonsillitis close watch should be kept for rheumatic manifestations. The underclothing of the patient so pre-disposed should be woollen, a light weight gauze wool being used during the summer. Sudden changes of temperature should be avoided, the feet kept dry, and exposure guarded against.

Alkalines are valuable to correct the

acid tendency of the secretions. A simple home remedy which often works well with rheumatic patients is to take one-half teaspoonful of soda and dissolve it in two-thirds of a glass of water, giving the patient a tablespoonful of this every second hour. Both the diet and correct medical treatment are very necessary.

A little intelligent care, and that given promptly, may save a life of suffering or one sadly handicapped by permanently diseased conditions.

Measles Dangerous "Afterwards"

MEASLES seems too often to be regarded as of little consequence, as a disease which naturally every child is expected to have at some time. There are doubtless some mild cases that leave no trail of ills behind them, the exception rather than the rule, but measles should be considered as dangerous, both the disease itself and its numerous complications.

It is likewise the most contagious of all contagious diseases, appearing even to be conveyed from one to another during the incubation period. Its beginning is so like that of an ordinary cold one may not suspect its nature unless it be known that the child has been exposed. Yet it is in its catarrhal stage that the disease is most actively contagious.

The child with the snuffling nose, sore throat, and annoying cough allowed to go to school, or Sabbath-school, or perhaps a child's party, may unsuspectingly expose everyone susceptible with whom he comes in contact and start an epidemic of measles in the community. When, after three or four days, the rash appears, it is then easy to determine the nature of the disease, and most parents in these days are sufficiently educated in health matters to keep the child with a rash in quarantine until recovered, but that is somewhat like "locking the barn after the horse is stolen." The mischief already may be done. Mothers should bear in mind that a child with a semblance of a cold in the head

should always be kept apart, so far as practicable, from other children, since even a cold is contagious, and what appears as a cold is often the forerunner of more serious ailments.

Caring for Measles Case

It is best that the patient be kept in bed during the fever stage of the disease. The sick room should be only moderately warm, 68° to 70°. It should be well ventilated with the air kept moist. This may be accomplished by keeping a dish of water vaporising over an electric heater, a spirit lamp, or in some other approved way. A shaded room is best, as the eyes are very sensitive to light. The harassing cough may be greatly relieved by inhalations of steam with or without medication. Fomentation to the throat and chest will often alleviate the cough.

It is of the utmost importance to keep the nose, mouth (including the teeth), and throat as clean as possible. A three per cent camphor-menthol-alboline spray is quite commonly used as a nasal cleanser, and any approved antiseptic gargle will serve for the throat.

The bowels should be well regulated and the diet simple. Plenty of warm or cold water, as best suits the individual, may be drunk whenever craved. The juice of sweet oranges and other subacid fruits is generally beneficial.

For the irritation of the skin, which

usually accompanies measles, nothing is more soothing than a tepid, hot, or cool sponging, whichever is best liked by the patient. A careful oiling of the surface should always follow.

The complications liable to come in the wake of measles constitute its greatest menace to life. Every care should be taken to guard against taking cold during either the active stage or convalescence. Children who have a mild form of the disease are often allowed to return to their usual routine of play or school as soon as they feel well enough to be about; but cold or damp feet, or exposure of any kind, at a time when the body is in a more or less weakened condition, may result in lung or bronchial trouble hard to eradicate.

For several weeks after convalescence especial precaution should be taken to avoid exposures, as an attack of measles not infrequently predisposes to tuberculosis.—*Good Health.*

Mumps: Their Symptoms and Treatment

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

THIS infectious disease was known and described by the physicians of ancient Greece. Every year, in the spring and autumn, it still makes its appearance and attacks children and young adults, particularly males. It is not a serious disease, but every case should have careful nursing as there are complications which may occur unless the patient is cared for.

The symptoms appear from two to three weeks after the disease has been caught from someone already suffering from it. During this long "incubation period" the child feels quite well, but at the end of it he begins to complain of a swelling of one side of the neck. After a few days, this usually spreads to the other side as well. The swelling begins below the ear and spreads forwards over the jaws and cheek, and backwards and downwards to the neck, at the same time becoming very hard, tense, and tender. Opening the mouth and chewing become so painful

that in many cases only fluids can be taken. There is also often some fever.

The swellings are caused by the affection by the disease of the glands which make the saliva of the mouth. The salivary gland first affected is known as the parotid gland; the submaxillary and sublingual salivary glands which lie under the lower jaw also sometimes become tender and swollen.

After eight or ten days the tenderness gradually disappears and the glands regain their usual size, and the patient feels none the worse for having had the disease.

This is the history of an ordinary case of mumps, where the patient has been prevented from catching cold and has been kept in bed until the swelling has gone down. If the patient has been allowed up too soon he is much more liable to get inflammation of other glands in the body, with more serious results.

The patient must be kept in bed and not allowed to get up or walk about until the salivary glands have lost their swelling and tenderness. The room which he occupies should have the window open day and night. To protect him from draughts and colds a pad of cotton wool should be bandaged over the face on either side. Where there is severe pain hot fomentations may be applied. In ordinary cases no medicine will be required, but of course the decision as to whether it is necessary or not lies with the doctor. The diet should be light and during the acute stage will have to be liquid. It may consist of milk, thin cornflour or arrowroot, etc., marmite dissolved in hot water, grape juice, and fresh fruit juice. Later, milk puddings, eggs, and bread can be added.

One week after all swelling has subsided, the patient may be considered free from infection. He should be given a bath with a good antiseptic soap or with some "Izal" or "Cylin" or a similar compound in the water, and afterwards dressed in clean clothes. He may then be allowed to mix again with others. Proper isolation should be carried out during the whole illness and the room, bedding, and clothes properly disinfected.



THE HOUSEKEEPER

Making Last Year's Clothes Do

Will It Pay to Dye the Old Costume?

MUCH good material, in many instances far better in quality than any procurable at even a very high price at the present time, is laid away in moth chests and storerooms. In many cases the colours are out of date, faded and streaked, or unbecoming to the person for whom the materials must be used. It is surprising what good and yet satisfactory results can be produced by skilful dyeing.

There are many good, sound reasons for dyeing materials. Plaid and striped materials become very tiresome if worn constantly, and while a light material may be pleasing to the eye in the spring, it lacks harmony with the bleakness of the winter season. A deep brown, Burgundy, or green would have more warmth and depth and be much more suitable. A colour selected may often be found unbecoming after a gown or costume is made. Unless one sticks to certain tested colours one is likely to make this mistake, and the wisest go astray now and then when choosing colours.

Remnants of good materials are often found marked at low prices because of the unusualness of the colour. In such cases money can be saved by purchasing a good fabric and dyeing it the colour desired.

There are two plans that may be followed. The cheaper method is to carry out the dyeing process at home, and the

second is to send the garments to a professional dyer. Though even the most inexperienced amateur can produce good results by following exactly the directions that should be furnished with every packet or tube of dye, heavy tailored coats and dresses that require the most careful pressing and handling to prevent them from pulling out of shape, and very delicate fabrics, might better, if possible, be sent to a professional.

The writer has been very successful in recolouring ripped-up materials, but has never done well with complete garments except in light-weight silks, cottons, and challis. On the other hand, a grey spring costume which had been worn several seasons was made blue by a good dyeing establishment and seemed just like a brand-new one. The price for such work varies according to the weight of material, condition it is in, and the style.

One should always remember that even well-sponged cloth is apt to shrink somewhat when it is dyed, and that linings and stiffenings, being of different fabrics, will not shrink the same way. Many dyers require that linings and buttons be removed; others do this work themselves as well as take out necessary facings. It is a good plan to enquire about this point before leaving the garment. If the skirt will need to be lengthened after it is dyed rip it out first, otherwise there may be a streak around the lower edge.

Choice of Colour

Certain colours will not take over other ground colours, and so the following suggestions have been prepared to give you an idea of what colours to select:—

Black will take over almost any other colour.

Very dark blue gives good shades over grey, lavender, lighter blue, green or purple, and other light colours with the exception of yellow. Do not use over yellow, orange, or brown.

Light blue should be applied only over white or very light-coloured goods.

Brown may be applied over tan, yellow, orange, purple, light red, or other light colours. It will not produce good shades over very dark green or blue.

Crimson or other bright reds may be used over yellow, red, or white. When used over brown produce catawba.

Garnet may be applied over any light or medium colours.

Grey may be applied successfully over white or very light-coloured fabrics only.

Green may be applied over any light-coloured cloth, but never over red or brown unless a very dull or muddy shade is desired.

Purple should not be used over yellow, orange, brown, or green. It will produce clear shades only over light colours, blue, or red.

Consultation of any good direction dyeing booklet will shed further light on this subject.

Home Dyeing

Many women have never tried to dye materials simply because it seemed to be

at first glance too much trouble. Living under pre-war conditions, when one could pass fairly good-looking garments on to less fortunate persons, this attitude had a certain altruistic side which justified it.

At the present time one must dye certain light-coloured or faded garments or appear needlessly shabby if there is no alternative but to wear them.

Different fibres require different kinds of dyes. Be sure that you buy the correct kind for the garment or material you expect to dye. There are different dyes for silk and wool, cotton and linen. White goods may be dyed any colour and coloured goods may be dyed a similar colour or a shade darker to freshen.

Prepare the cloth by brushing and cleaning first, washing if possible in warm pure soapsuds and rinsing thoroughly in water of the same temperature. Have a clean washboiler or large preserving pan for the dye receptacle, and in this place the required amount of water. Dissolve the dye in a cupful of cold water, which should then be placed

in the lukewarm contents of the boiler.

It is easier to do testing on samples than to change the colour after the whole cloth has been dipped.

All pieces to be dyed should be dropped simultaneously into the bath or the intensity of the colour may vary. The solution should then be brought to a boil and kept in constant motion by the aid of wooden sticks until the required time of boiling has elapsed. If trimmings, linings, etc., are to be used with the material, they



Wire Rack for Preventing Waste in Stored Vegetables

NOW that the war has focused attention on the need of conserving all kinds of food, and many housewives as a measure of economy are buying food in larger quantities than usual, a wire rack for storing vegetables meets a real need. The rack has five shelves so that different kinds of vegetables may be stored without mixing. The open construction permits the air to circulate freely on all sides of the vegetables, and thus decay is prevented. The outer edge of the shelves is turned up to increase the capacity. The rack stands about five feet high, and the construction is so substantial that it will support several bushels of vegetables.

should be dyed at the same time, as it is always difficult to reproduce an exact shade.

If you wish to produce darker shades or tints of the same colour for trimmings merely intensify or dilute the dye bath. One way to determine whether the end point has been reached is to fish out a tiny sample from the bath and drop it into clear water. If the colour is fast it will not stain the water and the sample will be the same colour throughout. The goods should then be lifted out on sticks and dropped into a tub of clear water. Flat pieces can be put through a wringer, but a complete garment will have to have the excessive moisture squeezed out and should then be placed on a padded hanger, turned and pulled gently from time to time as it dries to prevent it from sagging out of shape. It is best to press before the garment or material is quite dry. Press over a heavy material, using a dark cloth for dark fabrics and white for light-coloured.—*Ladies' Home Journal*.

Remodelling Garments

Florence A. Warner

THE present shortage of wool may not be relieved for many months, so that remodelling partly worn garments is the duty of every woman.

If you have one of these	Make it into one of these
Woman's long Coat ...	{ Short coat. Child's coat. Skirt.
Woman's costume ...	{ Remodelled. Misses' costume. One-piece dress. Dress for girl. Skirt (with yoke or pockets).
Woman's dress ...	{ Remodelled by combining with different material. Jumper dress with white under-blouse. Child's dress.
Blouse ...	{ Sleeves shortened and neck turned in and finished for morning blouse. New collar and cuffs or vest of contrasting material.
Skirt (wash) ...	{ Ripped and recut to bring up to date. Contrasting material used to lengthen or widen, for pockets, belt, etc. Middy blouse. Rompers.
Skirt (woollen) ...	{ Ripped, washed and recut. Coat for child. Bloomers.

UNDERWEAR

Nightgown ...	{ Child's gown. Child's petticoat. Child's princess petticoat. Drawers.
Drawers ...	Cut down.
White skirt ...	{ Child's skirt (ruffles also used for child's skirt).
Chemise ...	Drawers.
Man's shirt ...	{ Blouse for boy. Apron with bib. Shirt blouse for girl. Morning blouse for woman.

Potato Recipes

Mashed Potatoes.—2lb potatoes, 1 oz. margarine, 1 gill milk (about), seasonings.

Method.—Boil or steam the potatoes in their skins. When cooked peel, beat up well with a fork or spoon. Add the margarine, milk, and seasonings, and mash well over the fire till the potatoes are creamy and thoroughly hot. Pile up neatly on a hot dish.

Currant Potato Scones.—1 pint of mashed potatoes; 1 pint of flour; 1 tablespoonful of butter; 1 teaspoonful of sugar; 1 teaspoonful of salt; $\frac{1}{2}$ pint of cleaned currants; milk to make a soft dough.

Mix the flour and the other dry ingredients and rub with the potato and butter; add the currants and enough sweet milk to make into a soft, firm dough; half a cupful may be enough, depending upon the moisture of the potato. Roll half an inch thick; cut into squares or diamonds; bake for twenty minutes in a quick oven; split with a fork when done. Serve hot.

Potato Corn Meal Muffins.—1 cupful of mashed potatoes; 1 cupful of corned meal; 1 teaspoonful each of sugar and salt; 1 cupful of milk; 2 eggs.

Mix the dry ingredients; add to the potato; stir in the beaten egg and milk, and bake for twenty minutes in a hot oven. The amount of milk used will vary with the quality of the meal. Stir in just enough to make mixture drop easily from the spoon.

Potato Shortcake.—2 cups of mashed potatoes; 2 eggs; $\frac{1}{4}$ cup of shortening; 1 teaspoonful of salt; 2 tablespoonfuls of sugar; flour to make a stiff dough; mashed fruit with sugar.

Add the egg to the potato, then the shortening and the dry ingredients; roll out in one sheet half an inch thick. Cut in halves; butter the top of each; place one on the other and bake on a griddle or in a brisk oven until browned. Serve with syrup or fruit; if the latter, lift off the top sheet; spread half the fruit within; replace, and spread the rest of the fruit on top. Serve with cream.

Tapioca in New Dishes

TAPIOCA is high in food value and useful because of its starch contents in giving body to many dishes, new to housekeepers. We have too generally confined our use of tapioca to puddings.

Duchess Soup.— $\frac{1}{2}$ onion, 2 tablespoonfuls of fat, 2 tablespoonfuls of tapioca, 1 quart of milk, 1 egg, or

2 egg yolks, $\frac{3}{4}$ cupful of cottage cheese, 1 teaspoonful of salt.

Cook the onion in the fat until tender but not brown. Remove the onion; add the milk gradually, saving out a quarter of a cupful. Add the tapioca and the seasonings and cook for fifteen minutes. Pour the soup over the egg, beaten with a quarter of a cupful of cold milk. Add the cheese, and serve immediately.

Tapioca may be used for thickening soups, gravy, and white sauce. Cook the white sauce in a double boiler, allowing one tablespoonful of tapioca to one cupful of milk.

Fruit Mold.—3 level tablespoonfuls of tapioca, 2 tablespoonfuls of sugar, 1 teaspoonful of vanilla, $\frac{1}{2}$ pint of cream, 1 pint of milk.

Heat the milk in a double boiler; add the sugar, stir in the tapioca, and cook for fifteen minutes. Pour into a bowl to cool, add the vanilla, and fold in the cream whipped. Ornament with fresh berries.

Minute Rabbit.—1 pint of milk, 3 tablespoonfuls of tapioca, 1 cupful of cottage cheese, 1 egg, well beaten, $\frac{1}{2}$ teaspoonful of salt.

Scald the milk in a double boiler and, when hot, add the tapioca. Cook for fifteen minutes; then add the cheese cut into small pieces. Stir constantly until the cheese is melted; add the well-beaten egg mixed with a little cold milk, and salt. If desired this may be turned into a baking dish and baked until brown.

New Sponge Cakes

ALL may be made by this method: Separate the yolks and whites of the eggs. Beat the yolks until light; add the sugar, the salt, and the lemon juice. Fold in alternately the flour and the stiffly beaten whites. Sift the flour before measuring it, and measure it lightly.

These cakes are all very nice and light. Barley has characteristic flavour. The cornflour cake is especially tender, and all are of good texture. The extra lemon juice is used with rice and corn because these flours have a slightly starchy taste.

Cornflour Sponge Cake.—1 cupful of cornflour, 1 cupful of sugar, 4 eggs, 2 tablespoonfuls of lemon juice, $\frac{1}{8}$ teaspoonful of salt.

Rice Sponge Cake.— $\frac{3}{4}$ cupful of ground rice, 1 cupful of sugar, 4 eggs, 2 tablespoonfuls of lemon juice, $\frac{1}{8}$ teaspoonful of salt.

Barley Sponge Cake.—1 $\frac{1}{2}$ cupfuls of barley flour, 1 cupful of sugar, 4 eggs, 1 tablespoonful of lemon juice, $\frac{1}{8}$ teaspoonful of salt.

Oat Sponge Cake.—1 cupful of oatmeal, $\frac{1}{3}$ cupful of cornflour, 1 cupful of sugar, 4 eggs, 1 tablespoonful of lemon juice, $\frac{1}{8}$ teaspoonful of salt.

Good Furniture Polish

1. Put into a bottle in the order named: One gill each of powdered rottenstone, raw linseed oil, turpentine, naphtha, a

strong solution of oxalic acid, half a gill of alcohol, and one gill of water to which has been gradually added one tablespoonful of sulphuric acid. Shake the bottle, and pour a little of the mixture on a piece of felt. Rub the soiled surface with this, using a circular motion, and rubbing lightly but quickly. Finish by rubbing with soft old linen. Keep the bottle well corked and in a cool place.

2. A good polish for mahogany furniture may be made by dissolving beeswax in spirits of turpentine. Add a little burnt sienna and umber to colour the preparation. Apply with a soft rag in the usual way.

Household Hints

For Greasy Dishes

A little soda in water for greasy dishes is a great help, and a bit of blue in the water in which glass is washed adds much to its brilliancy. Glass cloths must be free from all fluff.

Greasy Kettles

To clean greasy kettles warm the pot or kettle, then throw in a handful of corn meal and rub well. You will find the meal will absorb all the fat, so that soap and water will make the kettle perfectly clean.

Vegetables

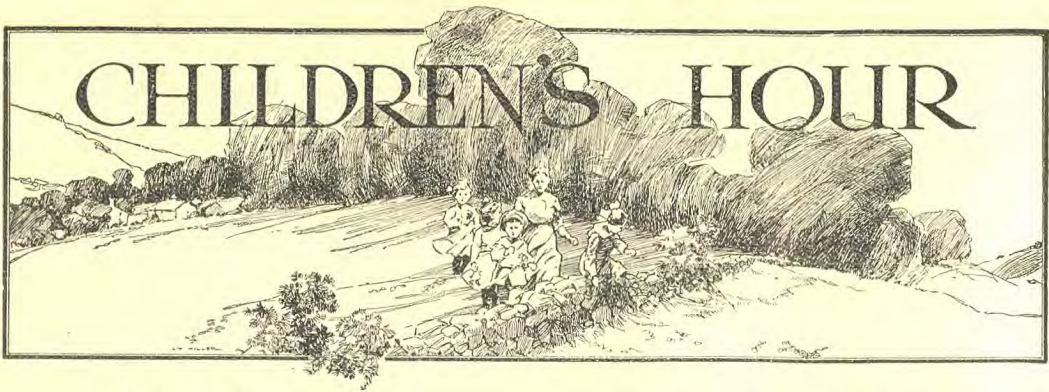
After peeling or scraping vegetables, lay them in cold water to keep their colour. Lay all greens in cold, salted water before using them. Drain all vegetables well, and serve them very hot. Boil greens fast with the lid off and skim the water well.

Burnt Loaves of Bread

When loaves are baked in too hot an oven and the outside crust gets too brown, do not attempt to cut it off, but as soon as the bread is cold rub it off with a coarse tin grater and remove all the darkened crust.

To Wash Flannels Without Shrinkage

Have a tub half full of water that is more than warm but not very hot, and make a strong suds with laundry soap of the best quality. Shake the flannels thoroughly, then squeeze them with the hands, sop them up and down, and if necessary rub the spots between the hands. Do not rub soap on the flannels, and do not rub them on a board. Wring from the first suds, and put into another lot of the same temperature. Rinse through this water, then put them into another as warm that does not contain soap. Wring dry, shake vigorously, and dry quickly. Iron before they are quite dry with a moderately hot iron. Then press well. Do not use borax for coloured flannels.



The Old General

HIS fighting days had long been done ; and one afternoon the old General sat in the garden with a grandson whom he greatly loved. He talked gently to the boy ; and the little man asked him questions. "Grandfather, now that you are old you sit quiet a long time and you remember, do you not?" "Yes," replied the old soldier ; "it is always thus with the aged." "Grandfather," went on the little man, "you won a lot of victories ; tell me which of all your victories you consider the greatest. Was it that one in which you stormed the hill fort and took it?" "Not so," broke in the old soldier. "Then, was it when you had that night march through the desert and captured that African city at dawn?" The old warrior shook his head. "Was it," asked the boy, "when you yourself rescued that wounded man and received the Victoria Cross?" "No," came the immediate reply. "Tell me, then, grandfather," coaxed the pleading voice, "which do you think was the greatest victory you ever won?" "My greatest victory," said the old General, in a solemn voice, "was achieved when, after many years' struggle, at last I conquered myself."

The small boy was silent, for he did not quite understand. "Tell me, please," he asked, "something about it." "Well, little man," said the General, "when I was your age I had a terrible temper. I used to feel it rising inside me like blowing up a fire with the bellows, and, because I really fought against it, it got worse and worse. But one day God

compelled me to learn that I could never be a true soldier unless I conquered my temper. It took years, and even now angry passions will sometimes rise ; but I pray, and so come off victorious."

"Yes, grandfather," broke in the small boy in rather a shaky voice, for he had a temper of his own, and his nurse could have told tales. "Please go on." The old soldier went on.

"Then," he said, "when I was a boy I always wanted my own way, and all of it. I was often disobedient. When I joined the army I just had to learn to obey, or instead of being promoted I should have been sent away in disgrace. I did not like having to do as my superiors told me, but I had to conquer my self-will."

"Thank you, grandfather," interrupted the little man. "I don't think I want to hear any more. Hearing all this hurts. Please may I go?"

The aged General smiled tenderly, for he knew why hearing it hurt. "Yes," he said, "you may go. And remember that if my little grandson wishes to conquer himself, he must pray a good deal and try hard. He will find that God always helps those who are trying their best." "I will remember, grandfather dear," promised the small boy. And he stood at the salute and ran off. The old General watched him with shining eyes that showed how much he loved him. Then he murmured to himself, "Yes, yes ; there was never one of my victories so great as that by which God enabled me to conquer myself."—*Christian World.*

Uncle Ned's Magic

Belle Laurence

PATTER, patter, drip, drip, sang the rain on the roof. Tearfully Teddy glanced from the window.

"O dear!" he sighed.

"O dear!" echoed Frank and Betty.

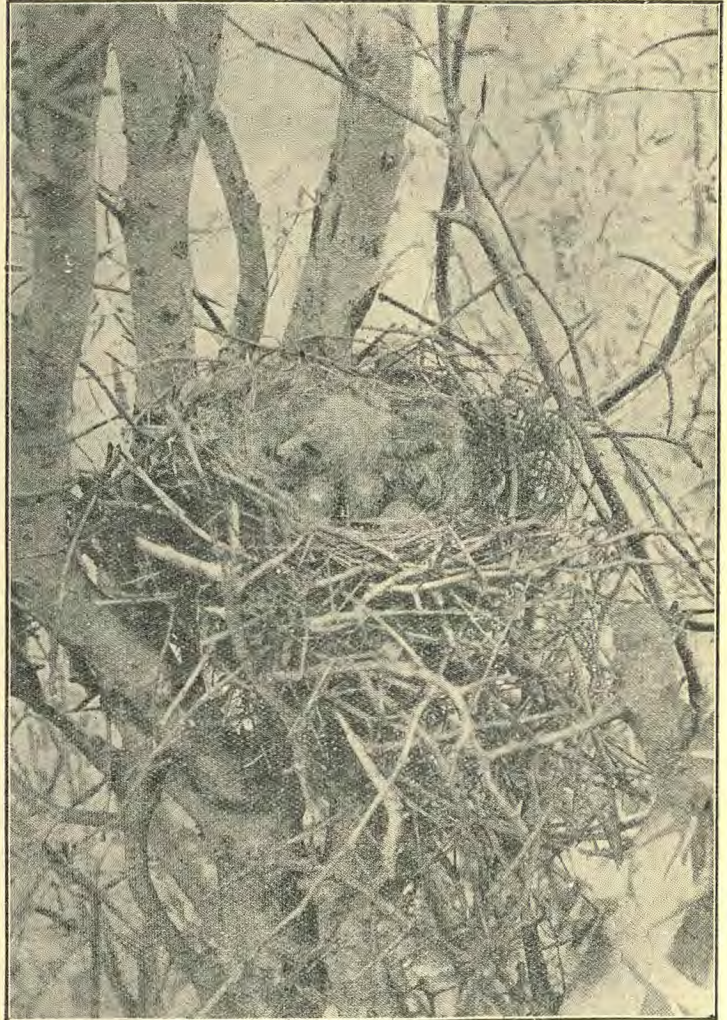
"Guess daddy couldn't make a fire on the rocks to-day," said Frankie, with pictures of the intended picnic vividly before him. This was very evident by the sudden downpour which followed his remarks. Even sight of the lake was shut out from him.

It isn't such an easy thing to amuse two eager little boys and a little girl on a rainy day. Sailing boats in the bathtub was fast becoming tiresome. A sudden gust of wind rattled the windows, and the children did not know that somebody had opened the door and was standing right behind them, and they did not know, either, that that somebody was Uncle Ned.

The children had not seen Uncle Ned for a long time, so of course they were very glad to see him, and just at the right time, too. Somehow uncles always happen to come at just the right time, so it was not any wonder that he was besieged with kisses, and coaxed to tell a story. Thoughtfully Uncle Ned gazed at the logs in the big fireplace.

"I'll tell you, chums," he said, prompted by a sudden idea, "let's have another magic trick, and this shall be called the 'Russian Mountains.' And now I'll get the things necessary."

While the children were gathering round the table, uncle returned with a small kerosene lamp, a strip of paper about four inches wide and about three feet long, a glass of water, a teaspoon, and a small plate. These he placed on the table, while from the long bookcase he selected four books, decreasing in size



ONE OF THE DELIGHTS OF THE BUSH

from a very large book to a very tiny book.

He lighted the lamp and held the strip of paper over the top near enough so that it soon became covered with thick, greasy lampblack. Then on the backs of the

books, which he had stood upright and about four inches apart, he pinned the paper, the greasy side toward him, allowing the end nearest the tiny book to rest in the plate.

"Now, then," said Uncle Ned, "we are ready," and taking a little water in the teaspoon, he let it fall drop by drop upon the paper.

"Gracious!" said Frankie. "Just see how it rolls!" and sure enough, one after another the tiny drops rolled down the inclined plane of one book, gaining speed enough each time to mount the next, and so on into the plate.

The children each in turn dropped some water on the paper, and watched with delight the tiny drops striving to see which could gain the plate in the quickest time. It was near supper-time when they thought to look out of the window—and what a surprise greeted them! The rain had ceased, the dark, threatening clouds had gone, and the sun was shining bright and clear. The next day they could have their picnic, and a much better time because they would have Uncle Ned with them.

Cradles in Spider Land

A CERTAIN spider found in the southern part of Europe makes a curious cradle to preserve her babies through the long cold winter, knowing, as does every mother, that cold weather and uncared for babies always mean death. She makes from the thread inside her a silk case somewhat like a balloon upside down, not quite half an inch long, and fitted with a door, or cover, which may be opened, though she always leaves it carefully closed. One day she herself enters this cosy little cradle, and lays her eggs from which will come the spiders in the spring. After she has thus far done her duty, she comes out, again carefully closes the door, and then to make assurance doubly sure, she builds an outer case, exactly the same shape, only twice as large. The space in between the inner cradle and outside shell

is carefully stuffed with a golden-brown silk, making a warm and inviting little palace for the baby spiders when they crawl out of their eggs and can open the door of their cradle.

After having closed the outer door and made a careful inspection of her whole work, the proud mother hangs her cradle to a bush and leaves it there, knowing full well that under ordinary circumstances it will weather the winds and the rains and the storms.

H.G.F.

Living Balloons

ALL have heard about, and many have seen, the curious little animal who carries a whole armoury of swords and spears with it for self-defence. Its name is the porcupine, but who knows of its brother, the sea porcupine? It is as disagreeable to meet as its relation on land, and much more stupid. These sea porcupines have a very curious habit of puffing themselves up like a balloon until they are so full of air that they almost lose control of themselves. When in this condition, their fins and tails are useless to them, and they then merely turn over on their backs as if they were dead, and float about wherever the wind and wave may carry them. After a time some of the air escapes, and they then gradually get back their usual appearance again. In appearance these living balloons are ugly, and their thick leathery skin is covered with hard spikes, longer in some species than in others. The flesh of the majority is poisonous and has a very disagreeable odour, while a wound inflicted by their spurs is apt to be very dangerous when the poison they contain begins to work.

The fish is mainly a tropical one, although a few species are found in northern waters.

H.G.F.

A FAMOUS Englishman once said: "I have no confidence in the religion of any one whose animals do not know him to be a Christian."

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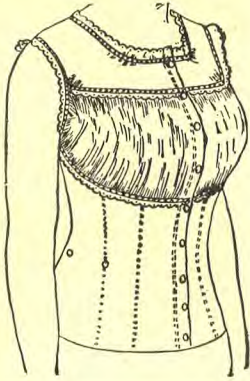
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Almost a Man

By Mary Wood-Allen, M.D.

FRANK talk to a boy who was "almost a man." Every boy will read it and be the better for it.

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