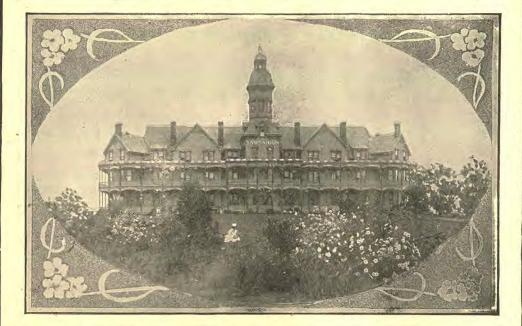


The Sydney Sanitarium

Wahroonga, New South Wales



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N the days when luxury consisted in having someone

IN the days when luxury consisted in having someone else attend to one's unpleasant duties, shouping for the well-to-do spouse must have caused her little concern. Fortunate indeed is the 20th century daughter of this well-to-do identity of 'days that have been," for Messrs. Craig Williamson, Pty. Ltd. shopping-by-Post Department reduces 20th century shopping to an 'early day' degree of simplicity. Here is a partial list of the things you may yearn to own, especially with low Win-ter Sale Prices as extra inducements, but from which

things you may yearn to own, especially with low Win-ter Sale Prices as extra Inducements, but from which you are temporarily separated by distance. This announcement—like a shop window—can show a few only of the multitudinous sale bargains from CRAIG'S. To make your shopping easy and savings sure, CRAIG'S have prepared a special Winter Sale List, and will willingly send a copy to you Free. No disappointment need be expressed by even the most distant shopper, for since "Letters Link a Nation" distance is no barrier. 'Tis DELAY ONLY that de-bars! SO AT ONCE, List your needs, and Shop By Post from CRAIG'S Winter Sale.

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special then is THIS opportu-nity to get Dress Materials in latest textures and colors at even LESS than old original prices. Remembering the fact that all "Craig" materials are in high-grade textures that tasteful ladies appreciate, we specially urge you to share these by Post. Tweeds in new grey greens, showing stripe, check, and herringbone effects, also navy and white and black and white stripe suit-ings, and Melton Cloths in navy, purple, maroon, car-dinal, fawn, brown, grey, splendid winter textures, 40-44in, worth up to 3/6 yd.; by Post from CRAIG'S, Sale Price, 1/14d. Unicey Cloths in dark grounds, show-ing stripe designs, neat and fast colors, thoroughly shrunk, 40in. Worth 23 yd., by Post from CRAIG'S, Sale Price, 1/4d. Cheviots that are now so popular for Winter Costumes or Coats, and in good navy and black grounds, 54in., reduced from 6/11 yd., and yours by Post from CRAIG'S, 5/6 yd. Scarce all-wool French Cloths. beautiful tightly woven textures in a fine range of shades, 48-50in. wide, worth up to 10/6 yd., yours by Post from CRAIG'S, Sale Price, 7/6. 4/11 Famous "Louis" Velveteens; in a complete range of fashionable col-ors, 23in., worth 4/11 yd., yours by Post from CRAIG'S, Winter Sale Price only 3/11. Other Velveteens in the reliable specially made "Craig" finishings, all fashion-able colors included, worth 2/6 yd., now 1/9⁴d. able colors included, worth 2/6 yd., now 1/91d.

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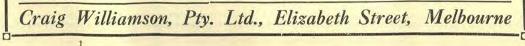
By Post, By Carly of the height of the particle date and the By Construction of the particle date of the particle date of the particle of the particle date of t of leaks, failures impossible ; from CRAIG'S, 1/-.

By Post, Art Sundries For ingenious fingers to work up at home, CRAIG'S offer their cele-brated Pen Painting accessories at special prices, considering the fact that such supplies are considerably limited, owing the intermeted chining conditions abread. However

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In addition to the special Winter Sale Price List that CRAIG'S will send to you Free, there is also placed at your disposal this Firm's beautiful 72 page Winter Style Book. It contains very many illustrations, all the latest garments for all members of the family, also a splendid range of household requirements. Ask for a copy specially, also send for a copy of our great Winter Sale Bargain List.



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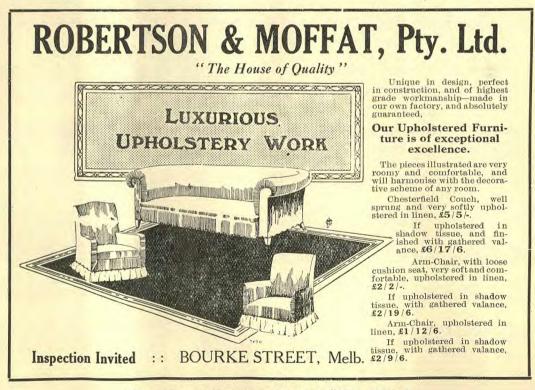
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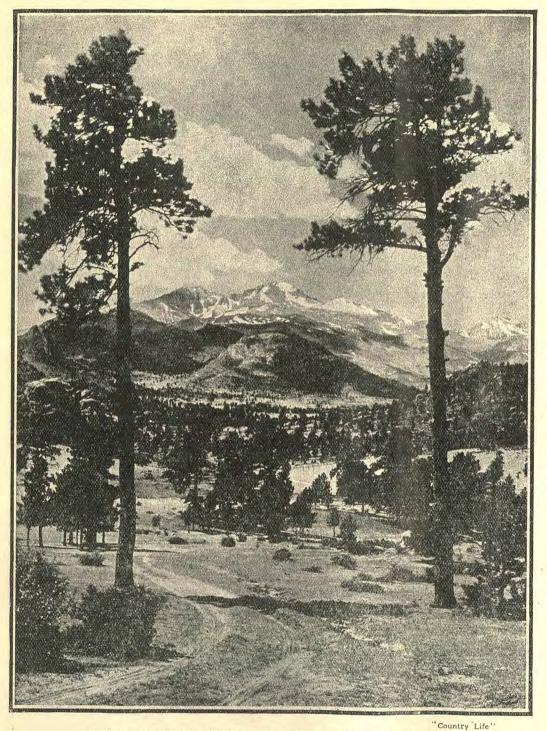
CHATS WITH THE DOCTOR

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

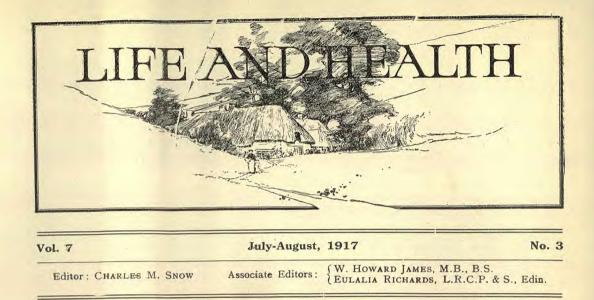
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WHERE SUMMER AND WINTER MEET-ESTES PARK, COLORADO, U.S.A.



ONE writer on health topics declares that the only gymnastics worth anything in the long run, aside from outdoor games, exercises, and work in the open, are those associated with baths, including vigorous rubbing and bending and twisting exercises, which are designed to improve the vigour and vitality of the muscles of the stomach and abdomen. Laxity and weakness of the external trunk mean lack of vigour and tone internally. These bending and twisting exercises should be taken with the feet a short distance apart, turning from left to right and from right to left as far as the muscles will permit, beginning gradually so as not to lame the It will be found that five muscles. minutes a day accompanied by this backward and forward bending and rotary twisting will do a great deal for the muscular system and for the digestion.

w w w

OUR unhealthful habits are usually the accumulation of the habits of our various organs that have been wrongly educated by us. Our organs can and do form habits. The liver can get into the habit of taking stimulants, and so can the stomach, kidneys, and bowels. They can all acquire the drug habit. And when they have all acquired the drug habit, then we say the individual has the drug

habit. The organs can also acquire habits other than drug habits. The brain can get into the habit of going without sleep, so that one can lie awake and turn and toss through the hours of the night, while a better educated brain is getting rest and permitting its owner to do the same. The stomach can become accustomed to receiving proper food at proper times in proper quantities and of proper qualities, and so do its work properly. But not every stomach is thus properly educated, and the result is disastrous to the system. Every physician knows that the bowels can become accustomed to physic and refuse to perform their functions properly without it. The use of alcoholic liquors stimulates the kidneys. To this the kidneys become accustomed and will not properly perform their functions without it. Many persons, knowing this fact, can go over their life's history and be able to discover where their ailment began. If you are ill, there has been some mismanagement of the bodily functions somewhere at some time. So you are advised to go back to the place where you lost your way in the labyrinth of life, and start over again in that particular. Take your doctor along with you, and he will doubtless be able to help you in getting a right start again. He cannot change your modes of thinking and acting, although

he can show you where they were wrong and advise you in what particulars to make a change; but he cannot make the change for you. You must do that.

www

SOME years ago everyone was advised to Fletcherise-chew the food until it was a liquid in the mouth. This aided the digestion by thoroughly mixing the food with the saliva, and also increased the flow of gastric juice in the stomach, thus insuring better digestion and assimilation. But we are now informed that this can be overdone by some individuals, those who have a tendency to sour stomach. The increased mastication increases the flow of acid gastric juice, and so increases the "sour stomach." There is no doubt that many people get great good from an increased mastication of the food, and that many people do themselves great harm by swallowing their food without sufficient mastication. But fortunately this is a matter which can be easily demonstrated by anyone who will give a little attention to it. Most people eat too rapidly; few people chew as much as they should ; but if there is hyper-acidity of the stomach, watch carefully the results of scanty mastication and thorough mastication, and then act in harmony with the results.

w w w

SOME women, having received a good education, feel that they must have a career, an opportunity to influence the world. But just now the greatest field offered to women is the work of lifting the home into its proper place in the life of the people. Speaking purely of civil and temporal affairs, the home and the school are the two pillars upon which our most important institutions stand. The proper correlation of these is the work of the days that are before us if there is not to be a collapse of our democratic institutions. The school can do much; but it cannot undo all the mischief that results from the unwise management of the homes of the land. The housekeeper, whether male or female, must take the JULY-AUGUST

conscious direction of the home life, study its defects and its possibilities, and so order that home as to secure not only the most economical but the most efficient results, not in lavish display, not in large bank accounts, but in the best-developed men and women, the product of that home.

UUU

ONE woman says she "never met a woman who did housework and liked it." If that is so, then a great missionary work is open before the educated woman of today. Shall she go out into the world of intellectual development and intellectual enjoyment, and leave the necessary duties incident to daily life to be done by "the left-overs, the failures, the out-at-theelbows, all who can do nothing else, and so take up housework"? The educated woman of this generation should know how to answer that question in the negative and answer it satisfactorily.

www

THE more this world gives itself over to communal pleasures, such as club life and theatre-going, the more cheerless the home becomes, and the more indifference is manifested toward the joys of family life. The house becomes only the place of shelter and storage, to be left behind when real enjoyment is desired. With it is minutely associated the drudgery of daily routine, not the delight of living. This tendency is shown not only by the crowds in nightly attendance at the theatres and picture shows, but by the equally large crowds of women seen daily on the shopping streets. The estimation in which the home is held by those who make the purchase of a one-shilling collar the excuse for three trips to the city's shopping district cannot be very high. It is of the utmost importance to the upgrowing generation that the home occupy the place God designed it should occupy as a shield, a protection, an educating and cultivating influence in the world. When it does that, we shall hear less of boys and girls going astray and becoming a disappointment to their parents, of domestic broils, and broken family ties.

Treatment of Acute Lung Troubles

W. HOWARD JAMES, M.B., B.S.

WE recognise acute lung troubles by the sudden onset of fever, difficult breathing, more or less cough, increase in rapidity of pulse, restlessness, and often sleeplessness. The difficulty of breathing in children is accompanied by unusual movements of the sides of the nose and increased muscular action of the chest; the regular, even inspiration and expiration is interfered with. Very often there is pain, especially in pleurisy and pneumonia (inflammation of the lungs); the pain is increased by inspiration, especially in pleurisy. Pneumonia in adults is usually ushered in by violent shivering (rigors). In bronchitis the most noticeable symptom is the cough, which may be very violent with more or less expectoration-scanty at first but finally plentiful and loose. Blueness of the features is an indication that sufficient air is not entering the lungs; this is quickly developed in children. In the fit of coughing in whooping-cough it is developed in a few seconds, but soon passes off. The sharp, stabbing pain in the side increased on inspiration is very characteristic of pleurisy.

Fresh Air

In the treatment of all lung troubles, acute or chronic, fresh, pure air is absolutely necessary. Draughts must be avoided, but a well-ventilated bedroom will not create draughts. The bed of the patient should be so placed as to avoid the current of air in the room; a bed between a window and the fireplace stands in a bad position. Cold air, and in fact all cold treatments, increase the depth of inspiration, and consequently are beneficial in acute lung troubles, especially when the patient is feverish. Persons with fever are not likely to suffer from an "overdose" of cold air. The open air treatment of both acute and chronic chest troubles has, in many hospitals, been followed by greatly reduced

mortality. It is easy to arrange for sufficient clothing to avoid chilling the patient. It should be remembered that in all lung troubles there is deficiency of oxygen in the blood, and abundance of this element is absolutely necessary for the body to carry on its functions in a satisfactory manner.

Feverishness

The fever at the onset of acute lung trouble should receive immediate attention; frequently early treatment will abort an attack of pneumonia or bronchitis. A good sweating not only diverts the blood from the congested lungs, but also removes poisons which always exist in the blood in feverish colds, pneumonia, and bronchitis. Profuse perspiration may be produced in many different ways. Repeated fomentations to the upper part of the spine, hot leg baths extending up to the knees with the body well wrapped in blankets, hot steam baths, hot salt water baths, or hot blanket packs, will, as a rule, produce satisfactory results. During the treatment hot water, or hot lemon water, should be freely partaken of. The hot applications must be continued until the perspiration is free, after which the body should be well sponged with almost cold water and the patient put to bed. This cold treatment following the hot applications prolongs the good effect by keeping the blood in the skin and away from the congested organs. When hydropathic remedies are not available, profuse perspiration may be brought about by a dose of aspirin (10 to 15 grs.) or of Dover's Powder (10 grs.) at bedtime. The sponging of the body and dry nightclothes are advisable after the use of these drugs.

Should the temperature continue after these sweating procedures, frequent tepid sponging will be found useful, or a folded towel (3 or 4 thicknesses) wrung out of cold water and applied to front of body from the lower part of neck to

LIFE AND HEALTH

abdomen. Cover with dry flannel or piece of blanket and re-apply the pack as soon as it gets warm. Discontinue cold applications when the temperature falls to 100° F. or below. Where the lungs are congested, as in pneumonia, very cold (even iced) packs should be similarly applied from the spine to the breast bone on the affected side. Chilliness should never be produced by cold applications;

of chilliness should be met with by one or two good hot fomentations, but where there is fever, chilliness rarely occurs when the treatment is properly carried out. Between the treatments cover the chest with a jacket of cotton wool or a heating compress. A heating compress should consist of five or six thicknesses of cheese cloth wrung out of cold water and covered with cotton wool



AT WORK IN WINTER

if a patient is cold and chilly the cold applications should give place to hot. The cold applications to the chest lessen the fever and drive the blood away from the congested lungs. The legs and feet should be kept very warm by hot water bottles, or fomentations while the cold is applied to the chest.

If the cold applications are continued for a long time, an occasional short, hot fomentation to the same region is advisable to renew the nerve sensibility and to promote the vigour of the reflex effect from the cold. An hour's cold treatment suffices in most cases, but should be repeated four or five times in the twenty-four hours. After each hot treatment, the body should be sponged with cold water and thoroughly dried (cold mitten friction). The advent and flannel binder. Never allow the patient, however, to get uncomfortably hot. The heating compress often induces sleep.

Where the pulse is very rapid, apply an ice bag or cold compresses over the heart; the cold compresses will need changing frequently. The cold mitten friction and the cold towel rub are invaluable in sustaining the action of the heart. Where there is cold, clammy perspiration or chilliness or blueness of the skin, a short, hot fomentation to the parts should be applied just previous to the cold mitten friction. Cold applications are not borne so well by thin patients and those of low vitality, and in these cases some primary heating treatment is necessary. The cold applications should pro-

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duce a general redness and glow of skin; if chilliness results they should be discontinued. Chilliness, however, is often merely the result of poor treatment.

Pain

Pain frequently gives trouble in pneumonia associated with pleurisy. In pleurisy of a simple nature, not associated with tuberculosis or pneumonia, cloths is flannel blanket. Half a dozen pieces about a yard long and nearly as wide should be procured. Fold the cloth the longest way, and dip into boiling water, keeping the two ends dry for a few inches. Twist the two ends quickly in opposite directions and then pull, holding the cloth over the water, still twisting. After wringing very dry, fold in a dry piece of blanket of sufficient size to cover



PLAY AFTER WORK IN WINTER

there is very little rise of temperature, and the pain is best relieved by a tight binder around the chest, the patient lying on the affected side. Strips of Meed's adhesive plaster 23 to 3 inches wide applied from the spine to the breast bone on the affected side are more satisfactory. About three strips are sufficient, and they should overlap to about half their width and be applied firmly during expiration. By these applications the movements of the chest walls are lessened, and the friction between the two pleural membranes is lessened. It is the rubbing together of the inflamed surfaces of the lung and chest walls that produces pain in pleurisy.

In pneumonia pain is best relieved by frequent applications of hot fomentations. The best material for fomentation the side of the chest from the spine to the breast-bone.

These fomentations should be applied every ten minutes for half an hour or longer. The patient should lie on the sound side. The thorough application of fomentations requires some experience, but the results are really good.

Cough and Expectoration

require treatment. Fomentations followed by heating compresses give the best results. The inhalation of steam is also beneficial. A little compound tincture of benzoin (a teaspoonful to one pint of boiling water) increases the sedative action of the steam. When the expectoration is difficult, the alternate application of fomentations and cold wet compresses is beneficial. The cold compress should be left on till slightly heated (about two minutes), and should be quickly followed by another fomentation. Finish the treatment by the cold application and thorough drying. This alternate treatment of hot fomentations and cold compresses helps the action of the heart, and increases the depth of respiration. Diet

Diet in acute lung troubles should be

very light and digestible. Mature fruit, milk. and dextrinised foods are excellent. Flesh foods, beef tea, and chicken broth should be avoided. Very little proteid food is required other than milk. Water, or water with fruit juice, should be partaken of freely, for these, by increasing the action of the kidneys and the skin, help in the elimination of the toxines, the poisons in the blood. The bowels should be kept open by small doses of salts or enemas.

Winter Beverages

EULALIA S. RICHARDS, L.R.C.P. & S., Edin,

WHEN the mercury is standing at 100° F., or thereabouts, every one is thirsty. Nature cries out most urgently for fluid

assisting them in their task of excreting the body poisons.

The cool drinks so delightful in hot



GILLESPIE W. A. DOUGLAS A vegetarian Hercules, fifteen weeks old, a son of vegetarian parents. He was creeping at seventeen weeks, and at eleven months could wheel his two sisters in a gocart.

to replace that which is lost through profuse perspiration.

During cold weather the body perspires much less freely and, as a result, a heavier burden is thrown upon the kidneys and other excretory organs. So, although the individual is not so conscious of his need of fluid, the need is a real one and must be supplied if health is to be maintained. The taking of an abundance of liquid promotes bowel activity, and flushes the kidneys, stimulating their activity and

weather do not appeal to one's fancy in the winter months. The thought of an ice-creamsoda fairly makes one shiver when the south winds blow. Then it is that a hot drink is so comforting.

There are a number of winter beverages which fully meet the needs of the body, supplying liquid, warmth, and such stimulation as is due to genuine nourishment - and all in a pleasant and harmless form.

It is a pity that as much cannot be said of the almost universal drinks, tea and coffee. Science teaches us that these both contain a certain element which certainly stimulates weary nerves and muscles, but without imparting any real nourishment to sustain the increased activity. They also contain another objectionable element, tannin, which interferes to a considerable extent with the digestion of the food.

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EDITORIAL

Drinks Made with Milk

Those who are accustomed to the use of tea and coffee need experience no difficulty in finding satisfactory substitutes. There are upon the market a number of cereal preparations which, with the addition of milk and sugar, constitute excellent winter beverages. Among these may be mentioned Frucerea extract. A teaspoonful of this extract added to a cupful of hot milk and sweetened to taste, produces a drink which is delicious and at the same time most nourishing. Those who prefer may use half milk and half water or even a smaller proportion of milk.

The *Instant Postum* and *caramel cereal* are also excellent cereal drinks which may be prepared in a moment.

Cocoa prepared with milk is nourishing, and is certainly far less objectionable than tea or coffee, though it does contain in a small amount the same nerve stimulant which is in tea and coffee.

Cereal Waters or Gruels

There is another class of beverages or liquid foods which are nourishing, but not to the same extent as those prepared with milk—the *cereal gruels or waters*.

In these days when economy is being practised by all, the water in which rice or macaroni is cooked may be saved for drinks. Seasoned with salt and a little butter—or, if preferred, with sugar and lemon or vanilla essence—these cereal waters make pleasant drinks. They should be taken quite hot.

If barley water or oatmeal water is desired, boil three tablespoonfuls of either in a quart of water until reduced about one half. Then season as desired and drink while hot.

Vegetable Broths

The third class of beverages are the vegetable broths: The water in which dried beans (any variety) are cooked, if seasoned with salt, butter, and perhaps a little tomato, makes a delicious broth. Potato broth, too, is most appetising. In fact the broth from almost any vegetable may be used as a drink or as soup stock, provided the vegetable is carefully pre-

pared, and thoroughly cooked in not too large a quantity of water. When dried beans are boiled gently for a long time in a moderate quantity of water, the broth develops a rich flavour which makes it quite as tasty as meat broth. At the same time, it contains none of the waste substances which render meat extracts so objectionable for persons suffering from rheumatism or any kidney disease.

Fruit Drinks

The fruit drinks such as unfermented grape wine, lemon squash, and orange



GILLESPIE'S SISTERS Healthy, bright, and happy products of vegetarianism.

juice are quite as beneficial to the body in the winter as in the summer, though some persons object to cold drinks in the winter. These drinks may be served hot.

Since the drinks made mostly or entirely of milk are strictly *food* drinks, they should be taken only at meal times. Recent investigations prove that a moderate amount of fluid (particularly if hot) if taken at meal time promotes rather than hinders the digestion of the food.

The cereal gruels, fruit drinks, and vegetable broths may be taken between meals if desired. For instance, a person who breakfasts early and does not dine until one o'clock may feel faint and thirsty at eleven o'clock. A little hot broth or thin gruel taken at this hour imparts the little strength needed.

Parlour Talks at the Sanitarium

[Believing that the readers of this magazine will be interested in and be helped by some of the instruction given to patients at the Sydney Sanitarium, we have arranged, with the consent of the Medical Superintendent, to publish some of these talks from time to time.—ED.]

I SEE that you have taken kindly to the suggestion that you submit through the question box questions of general interest on health topics. As you have asked a good number, it will be necessary for me to be brief in my replies.

Ques. No. 1.—How much water should one drink each day, and at what times should it be taken?

Ans.—As water constitutes over seventy per cent of the body weight, a man weighing ten stones (140 pounds) is made up of about 100 pounds of water. Such a man would lose, on an average, through the kidneys, bowels, skin, and lungs about two pounds (two pints) of water a day. This, of course. on the supposition that he is taking at least the same amount in food and drink.

Reckoning on the basis of an intake of *four* pounds of water and the loss of the same amount daily, it would take such a person twenty-five days to *renew completely* the water in his body. On the face of it, I am sure you will agree that water kept in the body for three weeks and over is likely to be a little stale. My advice, then, is that you adopt the following plan:—

Half a pint of water before breakfast, One pint between breakfast and dinner, One pint between dinner and tea, Half a pint between tea and bed time.

Thus, in addition to the water in your food (two to four pints) you will be taking three pints, a total of five to seven pints a day. With this arrangement, the water in the body should be renewed every fortnight.

Strange as it may seem, experience

indicates that the more water one drinks, the more one feels inclined to drink, and vice versa.

Now when should we drink? My advice is that as far as possible you should avoid drinking at meals, and do not drink more than a mouthful or two within fifteen minutes before a meal and within an hour and one-half after a meal.

Ques. No. 2.—Is there any harm in taking a little light refreshment between meals?

Ans.—I presume the question refers to early morning tea and toast, eleven o'clock tea and biscuits, four o'clock tea and cake, and biscuits and cheese for supper. When we remember that a normal stomach requires from four to five hours to digest the average meal, and should have at least a few minutes' rest before starting on the next, it is easily seen that it is unfair and unreasonable to ask "Little Mary" to speed up to the accomplishing in two hours what should generally be done in four.

Ques. No. 3.—Is it advisable to have a nap after meals?

Ans.—Yes, and No. Yes for infants and our white haired fathers and mothers. those in the extremes of life; and No for those between. After meals a large amount of energy is centred in the digestive organs, which is kept up by a continuous supply of active, oxygenated blood. During sleep the blood is not pumped as rapidly or as forcibly, and, consequently, not in such quantities through the digestive organs. Therefore digestion is slower. The same might be said in reference to the oxygenation of Breathing is the blood during sleep. shallower and slower during sleep. The combined result is that with less blood passing through the lungs to be made active (oxygenated), and with less oxygen there, the supply of active blood to the digestive organs is below requirements.



NOTICE TO SUBSCRIBERS: All questions for this department must be addressed to the EDITOR, "LIFE & HEALTH," WARBURTON, VICTORIA, and not to Dr. W. H. James, who will treat correspondence only on usual conditions of private practice. 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.

32. Milk-Boiled and Fresh; Chicken Pox

"J.F.H." asks: "What difference is there in milk, boiled and unboiled?" He is a consumptive and is obliged to boil the milk on account of typhoid fever being very prevalent. His children suffer from chicken pox, and he asks, "Can you tell me the cause and the best treatment?"

Ans.—Milk is certainly more digestible and more nourishing in its fresh state. Boiling takes from its flavour, interferes with the delicate organisation of the proteids, and renders the milk more constipating. Boiling undoubtedly destroys largely the "vitamines," the life-giving principle found in the outer layers of wheat and rice, etc. Fresh milk will prevent scurvy, but such cannot be said of the milk when boiled. Unfortunately, most milk has to be sterilised on account of its liability to contamination by diseasecausing germs. Milk is better sterilised in bottles or a double saucepan. A temperature of 160° F. for a couple of hours will destroy the disease germs, and will not interfere with the flavour and digestibility as much as boiling. With a reliable cow, clean pastures and stables, and hygienic milking, milk need not be boiled, but these conditions are the exception.

Chicken pox is produced by germs. It must run its course. Children should be prevented from scratching the eruptions as much as possible. The body should be washed daily with warm water and a good, unirritating soap, and the diet should be plain and simple. The disease is contagious as long as there is any sign of the eruption. A little carbolised vaseline (3 per cent) will lessen the itching.

33. Acne

"A.E.P." writes: "Would the doctor advise face massage and vibratory treatment for a girl who is recovering from acne, pimples on the face and neck?"

Ans.- Those who have a tendency to acne should wash the parts thoroughly several times a day with the idea of clearing away the coarse, outer layers of skin, thus keeping the mouths of the sebaceous ducts free and stimulating the circulation. Use a good soap and flannel. Ten grains of sulphur to an ounce of vaseline should be rubbed into the skin twice daily. The general health must be attended to. Alcohol, tea, and coffee cause reflex flushing of the skin and should be avoided. Smoking and sexual excitement are likely to be injurious for the same reason. When the pimples contain matter, it should be removed by squeezing or by the point of a clean knife, bathed with hot water, and dressed with the following resorcin ointment :---

> R Resorcin grs. XV Vaseline Lanolini aa 3ss

The diet and the bowels must be attended to. Avoid flesh foods, legumes, sweets, and all rich foods. The thorough scrubbing of the face with soap and flannel is better than massage.

34. Catarrh of Throat

"A. Mc.K. writes: "I can always spit a white or colourless mucus from the throat, and recently have, after vigorous coughing, seen small particles of food come too, which have a very offensive smell."

Ans.-There is evidently a catarrh of the throat and tonsils. The secretion from the tonsils is retained in the little crypts, and decompose, and probably, when coughed up, look like particles of decomposed food. All throat and tonsil affections are affected by a poor state of digestion. Good, digestible, plain food, fresh air, and exercise are necessary. The condition will not improve unless the general health is attended to. Keep the bowels regular with fresh fruit at the close of the meals (except when vegetables are taken), and drink freely of cold water between meals. Gargle the throat twice daily with salt and water (one teaspoonful to half a pint), and paint the throat once daily with tannic acid in water (one dram to the ounce). We find the tannic acid is better without glycerine.

35. Marasmus; Legumes; Defective Eyesight; Neuralgia; Hats; Sweaty Feet; Obesity; Dropsy

"T.E.R." (Penguin) asks for informaticn on the following :---

Marasmus in breast-fed babies is constitutional, probably due to the mother's poor health and poor milk. It may be the result of tubercular or syphilitic trouble. Probably a wet-nurse or feeding with bottle would help matters. The bottle should be scrupulously clean, and only one feed prepared at a time.

Legumes should not be given to "delicate children with frail digestions." Milk, eggs, macaroni, granose biscuits, oatmeal, and rice would suit much better. Legumes should be reserved for the robust, those who have outdoor work. Defective Eyesight.— The defective eyesight so common in the present day we believe to be due to weakened constitutions. Reading and sewing with a poor light, and more than moderate use of the eyes with weak constitutions, tend to strain the eyes.

Neuralgia.—Neuralgia is often the result of decayed teeth. It may result from exhaustion of the nervous system, as in neurasthenia and neuritis, poorness of blood (anæmia), rheumatic diathesis, pressure on nerves from tumours, and eyestrain. Digestive troubles and constipation will sometimes giverise to neuralgia.

Hats for Children.—We believe in hats for children both in cold and very hot weathers. The hats, however, should be ventilated.

Sweaty Feet.—Shoes or sandals would suit better than boots for sweaty feet. Boracic acid (20 parts) and salicylic acid (1 part) make a good powder for sweaty feet.

Obesity — Obesity is best kept down by temperate living and outdoor exercise. Fats and sweets should be avoided. Skim milk gives energy to the system without producing fat.

Dropsy may be due to heart, kidney, or liver diseases. Sometimes it is seen in a mild form in anæmia. The remedy will vary with the disease. Good, nourishing food and plenty of fresh air are generally advisable.

36. Carlsbad Salts; Kephaldol; Iodide of Potash; Cold in Loins; Orange Lily Treatment

"Mr. and Mrs. G.E.B." ask re the following:-

Carlsbad Salts will only help in rheumatic affections when the bowels need regulating. They should be taken in hot water on rising in the morning.

Kephaldol is a patent medicine with which we have had no experience.

Iodide of Potash will often relieve sciatica by keeping the blood in an alkaline condition or removing constitutional taints. It should not be used except on advice of a physician.

Cold in Loins is best treated by sweating procedures two or three times a day and fomentations. Apply two good, hotfomentations within ten minutes, and then alternate fomentations with cold applications (ten minutes hot and two minutes cold). This should be followed by deep massage. Flesh foods, tea, coffee, and all rich foods should be avoided, and the bowels should be kept regular by a plentiful use of fresh fruit and water.

Orange Lily Treatment we do not recommend.

37. Falling Hair; Alopecia

"J.E.P."—We would direct our correspondent's attention to an article by Dr. E. Richards on "The Care of the Hair" in the last issue of LIFE AND HEALTH. The bare patches on the chin and head (alopecia areata) are benefited by sea bathing, massage, and electricity. Paint the bald patches twice daily with the following:—

B. Ol. Sinapis
 Ol. Ricini
 Sp. Rosmarini ad 3IV (up to four ounces)

Remedies that increase the flow of blood to the parts help in the production of hair. A simple mustard plaster applied frequently would be helpful.

38. Abscess

2

"Mrs. E.C." writes: "An elderly, active woman suffers from abscesses. I would like to know something about them, their course, duration, and treatment."

Ans.—Abscess is due to death of tissue. A small part of the tissue beneath the skin, or in the muscles or organs of the body, has its blood supply interfered with, and its cells break down into matter. This breaking down of the tissues into matter is mostly accompanied by redness, inflammation, swelling, and pain. Sometimes the abscesses are cold and these symptoms are absent. Cold abscesses are often the result of tuberculosis, and sometimes arise

from diabetes and other constitutional trouble. Abscesses often arise from poisoned wounds, decayed teeth, etc. The poison is absorbed by the lymph vessels and carried to neighbouring glands. If the glands cannot destroy the poison, the poison destroys the glands and causes an abscess. An injury from a blow, especially in an unhealthy person, may result in an abscess. Blood poisoning of any kind may result in the formation of abscesses in various parts of the body. When an abscess is forming, it should be frequently fomented and bathed frequently with very hot water. Where abscesses are continually forming, some general tonic measures are required. The advice of a physician should be sought in these cases.

39. Progressive Muscular Atrophy

"T.N.L." asks for treatment of the above.

Ans.—This is a disease of the spinal cord, and is generally viewed as incurable. General massage and the use of Farradic electricity are the best measures. Sanitarium treatment may prove helpful.

40. Ulcer of Leg

"T.N.L." also asks for treatment of ulcers of leg brought on through neglect in confinement.

Ans .- The ulcers are probably due to enlarged veins. Veins often become varicose during pregnancy, and scratches and wounds, instead of healing, become chronic sores or ulcers. The best treatment is rest in bed. Dress the ulcers every three or four hours with plain boiled water on sterilised gauze, and cover with oiled silk and bandage. If old linen is boiled in the water, it will take the place of the gauze. If rest in bed is impossible, an evenly-applied bandage (starting from the toes) is necessary, but even then the limb should be rested as much as possible in the horizontal position. There is no better application than plain, boiled water covered with oiled silk.

41. Bread with Fermentation

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

Ans.—Bread can be aerated by machinery, but we know of no method of making light bread apart from yeast or rising powders—the latter we certainly do not recommend.

42. Leucorrhoea

"G. M." asks for advice re above.

Ans.—An examination is necessary in order to find out the cause, and treatment, as a rule, can only be satisfactorily given by a medical man. Injections are certainly helpful. A quart of warm water should be used twice daily. In the morning add one ounce of alum to the water, and at night two level teaspoonfuls of sulphate of zinc. The general health must be attended to.

43. Acid Dyspepsia

"R.S." writes: "I have for a long time suffered from acidity of the stomach. It became so bad that I went without breakfast, but that gave me very little relief. I took olive oil after meals, but with little or no effect. A mixture of charcoal and soda I got from the chemist gave me a good deal of relief, but it made the passing of water difficult. . . . I have had violent pain in the bottom of the stomach which I took to be appendicitis, the pains lasting for thirty hours, during which time I vomited eight or ten times. . . . I have several times taken a bottle or two of Schnapps for the relief of the water, but with little effect. Are the soft drinks, such as Sarsaparilla, harmful?"

Ans.—It should be remembered that chronic trouble about the appendix is a very frequent cause of acidity of the stomach. The removal of the appendix will frequently restore the state of the stomach almost immediately. Where there is excessive acidity, great care in dieting is necessary. All acid fruits, such as oranges, lemons, apples, quinces, etc., should be strictly avoided. Sometimes olive oil, cream, and fatty articles lessen the flow of acid, but often fatty acids develop which increase the discomfort. The patient has to decide himself as to whether oils or fats agree. The same may be said about milk. Milk agrees wonderfully well with some cases of acid dyspepsia, but with others it aggravates the symptoms. When milk is taken it should be combined with zwieback, granose biscuits, or stale bread, and no other food should be taken at that meal. Eggs cooked below boiling point are excellent. Vegetable albumins are the foods that agree best with cases of acid dyspepsia. Red meats aggravate the trouble, but steamed or boiled poultry and fish and tripe agree well. Albuminous food absorbs the acid and is necessary in this form of dyspepsia. Warm water can be taken with the meal with advantage. Avoid tea and coffee. Cocoa does not agree with some. Where milk agrees, creamed rice, sago, or tapioca make excellent dishes. The following vegetables may be taken : marrow, cauliflower, green peas, french beans, spinach, and potatoes if baked in their skins. Potatoes may be mashed with butter. Do not drink any of the soft drinks or take the pills mentioned. The acid in the stomach causes irritation to the delicate lining membrane, and may eventually bring about ulceration. Some alkali is necessary to obviate this. The following is good: Take one ounce each of bicarbonate of soda, carbonate of bismuth, and carbonate of magnesia (the heavy). Mix thoroughly, and take a level teaspoonful in a cup of warm water one hour after meals, and if acidity is still felt, another dose should be taken. If the magnesia causes looseness of the bowels less of it should be taken, or it can be omitted—it is, however, one of the best anti-acids.

44. Pain in Stomach

"A. M. H.," Hurstville, complains of womb trouble and of acid dyspepsia. She writes : "I suffer terribly with my stomach, and have done for years. I get a terrible pain at pit of breastbone and terrible wind, acid, and palpitation causing a suffocating feeling. When I go out I am all of a shake. I am extremely nervous. My head aches severely at certain times. Tomatoes, eggs, and green vegetables seem to pass through me undigested."

Ans.—We would recommend the same treatment as to "R.S." Tomatoes are harmful in acid dyspepsia. Eggs, if lightly cooked, should agree. Probably milk would be readily digested in this case. We have recommended poultry and fish in acid dyspepsia, but speaking generally we do not believe that flesh foods are the best. In acid dyspepsia where milk disagrees, however, we find some changes are necessary, and they are difficult to obtain without the use of some flesh foods as recommended.

45. Hot and Cold Applications

"Student": "How is it that hot and cold applications are used for the same complaint? When should hot and when should cold applications be applied?"

Ans .- Very hot and very cold applications have a similar action; they contract the blood vessels of the parts to which they are applied. Thus for internal hæmorrhage (bleeding from the uterus) very cold applications over the pubes or very hot douches will stop the bleeding. Tepid water, however, would increase hæmorrhage. If a cut is made in any part and bleeding is desired, as in inflammatory diseases or snake bite, the bathing of the wound with tepid water will increase the flow. In accidents, very hot water or very cold water would lessen the hæmorrhage. In these latter cases, however, firm pressure is the best remedy. Hot applications are used to reduce pain. Pain in the chest or abdomen is relieved by hot fomentations. In some inflammatory conditions of the limbs, or about the private parts, cold applications frequently applied give the most relief. Where the inflammation is of a chronic nature, as about the joints, or in the internal organs, as liver, chest, etc., alternate hot and cold applications do better than either hot or cold alone. The hot and cold used alternately improve the circulation in the parts. The heat draws the blood to the parts and then the blood is removed by the cold. Continuous hot applications tend to produce stagnation of the circulation. Before applying a cold application, see that the parts are first thoroughly heated. Often it is better to apply two or three hot applications before alternating them with cold.

46. New and Stale Bread

"Veritas" wishes to know our opinion as to whether new or stale bread is the most digestible, as medical authorities differ on the subject.

Ans.—We believe nineteen out of every twenty medical men agree that the stale bread is much preferable to the fresh. New bread must be very thoroughly masticated in order to digest well. When moderately stale bread is masticated, it breaks up into small particles, and can be intimately mixed with the starch-digesting saliva of the mouth ; new bread, however, has a tendency to form into soft lumps which cannot be penetrated by the saliva. It must not be forgotten, however, that appetite is a great factor in digestion. Bread when too stale is not relished, and consequently its digestion may be slow; new bread is often taken with a relish, and this increases its digestibility. We believe that bread is best taken when it is from twenty-four to thirty-six hours old.

47. Rheumatism and Gout

"Anxious" asks: "What is the difference between rheumatism and gout?"

Ans.—Gout is decidedly a diet disease, and is undoubtedly due to presence in the blood of uric acid and allied products. In rheumatism, uric acid is not found in the blood in excess, nor are the urates of soda crystals found in the joints as in gout. Gout is the result of high living: the too free consumption of nitrogenous foods (flesh foods especially), sugar and sweet articles of food, and alcohol. Alcohol in malt liquors is especially injurious. Rheumatism is not due to high living. The differentiation of these diseases we purpose taking up in the next issue of LIFE AND HEALTH.

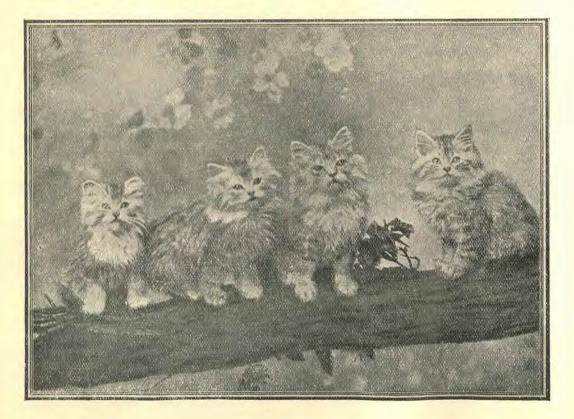
48. Inflammation of the Bladder (Cystitis)

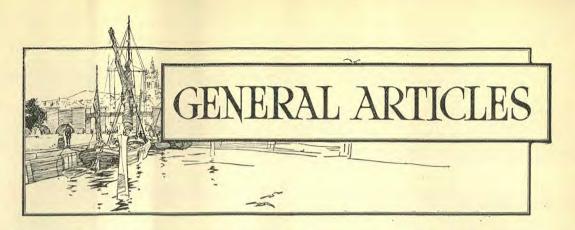
"Troubled" writes: "I have suffered from pain in the region of the bladder for some considerable time; there is great pain on passing water, and mucus is frequently noticed. At times I have acute attacks, when the pain is intense. I am very feverish, and have the pains increased by any movement whatever."

Ans.—During the acute stage the bowels should be kept well opened, very little food should be taken, and certainly flesh foods, pastry, and everything rich

should be absolutely avoided. Fruit and plenty of water should be taken, for they tend to lessen the acidity of the urine. Only hot applications should be used, as hot sitz baths, fomentations to lower part of abdomen, and continuous hot douches to bowels. In the intervals between the acute attacks, hot and cold applications are serviceable. A very hot sitz bath for ten minutes, then cold sitz for two min-Alternate for five or six times. utes. Hot and cold rectal irrigation or hot and cold applications to perineum (part in front of opening of bowel) are very good. Where there is discharge of mucus, the bladder should be washed out daily with a weak antiseptic solution, as boracic acid in water (a tablespoonful to a pint of warm water) or Condy's Fluid (a tablespoonful to a quart of warm water).

The diet is very important. Flesh foods, sweets, pastry, and all rich and fried foods are harmful.





Chronic Rheumatism of the Joints

GEORGE A. HARE, M.S., M.D.

THIS disease, which is common among men and women who work in damp localities, is now supposed to be due to micro-organisms. It often follows other

infectious diseases, such as influenza, catarrh of the nose or of the stomach and intestines, tonsillitis, and typhoid fever, and also catarrhal diseases of Heredity has women. been thought to play some part in the causation of the disease, as certain families seem peculiarly susceptible to it; but this may be due to the environment, rather than to heredity. Women are more susceptible than men, and the disease is more prevalent between

the ages of forty and fifty, though younger persons are not exempt, and it sometimes attacks even young children.

The disease differs from acute rheumatism in that there is less pain and fever. But there is always some pain, especially on motion of the joints; and there in usually a slight rise in temperature, especially at the beginning of the disease. The small joints, those of the fingers, are usually attacked first, the affection extending to the elbows, knees, and even to the hips. Any of the joints may be involved, including those of the jaw, the spine, and the ribs. The affected joints are usually swollen and spindleshaped, the skin over the joint being warmer and redder than the surrounding



skin. As the disease progresses, there is apt to be permanent enlargement, causing more or less deformity. The joints, at first favoured because of the pain, later become stiff, so that motion is difficult or impossible. Occasionally the heart is affected, but not to the same extent as in acute rheumatism.

The disease has no particular effect on the duration of life, but it greatly impairs the efficiency and the comfort of the patient.

The treatment should include the avoidance of such occupations as favour the continuance of the disease. The diet should be both nutritious and digestible. In fact, the writer is not certain that in every case there is not more or less autointoxication, either as the result of overeating or as a result of wrong combinations of food. At any rate, it is important that the digestion be improved by a proper diet. While it is often found in persons who do not use flesh foods, there is good reason to think that in some cases it may be due to an excessive use of carbohydrates or starchy foods.

These patients may be eating large quantities of food, and yet be ill-nourished because they are not digesting what they eat, but have in their intestines a fermenting, poisonous mass that is constantly passing into the blood current substances that vitiate the blood and destroy those



A COLD MITTEN FRICTION

properties in the blood by which it protects the body against the micro-organisms of disease. When chronic rheumatism once gets a foothold, it is not easily dislodged; for this reason the best time to cure the disease is in its incipient stage.

Those who are subject to chronic rheumatism should, if possible, secure change of residence to a dry climate, or at least such change of occupation as will take them out of damp, sunless rooms, into an abundance of dry, fresh air and sunlight. Such persons should wear wool next to the skin, and sleep in woollen blankets. Moderate exercise should always be taken when it is possible to do so. When for any reason exercise cannot be taken, its place must be supplied with mechanical or manual movements and massage. Some good may be accomplished by painting sore spots with iodine, and applying a gauze compress saturated with oil of wintergreen.

The diet should consist of a good variety of nourishing foods, but should be taken in no larger quantities than needed to nourish the system. Thorough mastication will prevent overeating and will improve the digestion. Flesh foods, tea, and coffee should be excluded, salt used sparingly, and nut foods, especially those made from peanuts, used in small quantities.

Water treatment should be used both as an eliminative and as a tonic, and for this purpose the hot full bath, 101° to 105°, may be used from eight to fifteen minutes on alternate days. On other days hot and cold applications to the spine and to the stomach and liver may be used. A cool spray, or better, a hot and cold spray, should be used after either of those treatments, or in the place of these a wet hand rub, a wet sheet rub, or a cold mitten friction. When cold treatment is used, it should always be employed with vigorous friction.

A daily cold hand bath may be used with great benefit, provided in all these treatments good judgment is used in gradually accustoming the patient to them, and securing in every case a good reaction and the avoidance of all unpleasant results, such as headache, chilliness of the surface after the bath, or increase of pain. Cold, full baths are to be avoided in all cases. The cool treatment outlined above, if skilfully given, is the best sort of tonic for these cases.

Massage is of the greatest benefit in the treatment of chronic rheumatism. It is surprising what can be done for stiff and painful joints by fomentations, massage, and passive movements in the hands of one who is well trained; but it requires much patience on the part of both patient and nurse.

GENERAL ARTICLES

For the relief of painful joints nothing is better than hot fomentations or a hot pack to the joints, covered by mackintosh, oil-silk, or even oiled paper, kept on for one or two hours night and morning, and a continuous moist compress kept around the joints during the interval between the hot treatments. The moist compress should always be covered with dry flannel and oil-silk, mackintosh, or oiled paper to prevent evaporation. Some sanitariums employ special ovens in which the painful joints are treated with hot air. This treatment has given good results in relieving both pain and swelling. A little ingenuity will enable any one to use this treatment at home by such means as he can extemporise.

In chronic rheumatism it is particularly important that the bowels be made to act regularly and freely every day. This can be done by proper food, exercise of the abdominal muscles, and special massage of the bowels, and by establishing a regular hour for the daily action of the bowels. In obstinate cases it is far better to use enemas or some mild laxative than to permit the bowels to be inactive.

Added to the above treatment a hopeful, cheerful spirit should be maintained. The influence of a hopeful attitude cannot be overestimated.

How to Sleep Out of Doors in Cold Weather

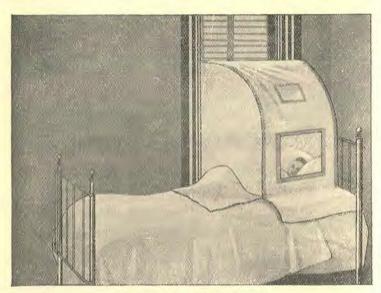
J. W. CHAMBERLAIN

"SLEEPING out of doors" is the common expression used to describe all sorts of arrangements for sleeping in the fresh air. It may be in a tent, an ordinary verandah hammock, a sleeping porch, or even in your own bedroom, as long as you are taking into your lungs, throughout the night, air that is absolutely fresh, that is, air that has not reached the inside of a room to be artificially warmed.

Remember that it is not cold air, necessarily, that brings health, but *fresh* air. Great harm has come to many who have allowed their bodies to become cold for the sake of sleeping in fresh air. This is never necessary. Keep your body warm, not only with warm bedcovers, but in damp weather with a warmed bed and sleeping bag. Unless it is much below freezing point your face will not suffer, and you will come to no harm, if it is exposed, as long as your neck, body, and limbs are warm and you are breathing fresh air.

In this country there are not half a dozen nights throughout the year when it is too cold to sleep with your face exposed. Devotees of sleeping in fresh air in cold weather know that it gives them greater mental and physical powers to do so, adds a keener zest to life, and increases their efficiency. Especially is this true in the case of those who have to meet the unnatural conditions of industrial life under which they are compelled to spend most of the time within closed walls where there is too much heat and too little ventilation. To counteract these conditions. sleep out of doors, or at least keep your face out of doors. Even if you cannot have a sleeping porch, you can move your bed to the window so that the head comes close beside the sill, and then make a canvas-covered frame which will fit against the open window and leave your mouth and nose free to the fresh air. In the day time this may be folded up and back, or may be entirely removed. See illustration.

Fresh air is fresh air, whether it comes to you in a $\pounds 1,000$ sleeping porch or in a canvas window tent that has cost no more than half a crown. Devices for outdoor sleeping in cold weather range all the way from built-on porches of varying cost and artistic pretensions to tents for yard or roof, from a screened and canvas-curtained corner of the verandah to the open bedroom window arrangements. If you are in a tent, see that it is so thoroughly lashed down that it will not blow away; and also see that a fly of waterproof material is used, since a wetting may give you pneumonia. Tentsleepers who have neglected to do this have had their faith shattered by the experience of waking in the flapping ruins of a cold, clammy, wet or snowy tent that has blown down about their ears, and then being



THE WINDOW TENT CLOSED

obliged to run for cover across cold, wet, or snowy gardens or yards.

On the other hand, enthusiastic freshair devotees have slept comfortably and healthily in tents even in zero weather. After sleeping outside at low thermometric levels, one is as warm as, if not warmer than, in a bedroom, the sleep is sounder, and one awakes with clearer brain, better braced and more refreshed. Needless to say, one must be warmly clad for tent sleeping. Plenty of wool bedding, or a sleeping bag and two thick mattresses, furnish about a maximum amount of warmth.

But the tent is liable to be more or less of a nuisance. It has to be struck and set up, and if that has to be done often it will kill one's enthusiasm. The desirability of having a warm dressing room close at hand makes for the popularity of the built-on sleeping porch.

The window tent, an interior compartment designed to fit the window casing snugly, comes in many forms. The feature common to all is an aperture that enables the sleeper to have his head outside and his body within the room. A sleeping hood protects the head and neck

> from unpleasant cold. In fact, a sleeping hood is advisable in cold weather, whatever the mode of sleeping out.

> It is sometimes difficult to make an old house wear its new sleeping porch with good grace. To provide for one or more in the plans of the new house is best. But where the sleeping porch is an after thought it is often a fascinating project, as it gives play to ingenuity in turning unused spaces and odd angles to account, and appeals especially to the feminine propensity for making something

out of nothing. A simple balustrade, an awning, and Venetian screens have been known to make a sightly and habitable sleeping apartment. In a one-story dwelling a verandah may be enclosed with canvas curtains, or a small rear porch may be similarly walled in, and it is all the better if it adjoins a bedroom where one may dress in comfort. Ground floor porches, however, are hard to screen adequately, and street noises are likely to be annoying. For these reasons the ideal place for a sleeping porch is on an upper floor.

In the case of a two-story home an upstairs balcony may be adapted for sleeping, or the roof of a first-story verandah. Where these are not available, a porch supported by brackets may suffice, and at the same time add attractive lines to the

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house Sometimes the roof of a one-story extension can be arranged into a sleeping porch that fits nicely into the surroundings. Occasionally entire additions are made for the sake of open bedrooms, in which case the architect will be able to make a variety of suggestions.

The matter of cost is very elastic.

Ordinarily the conversion of a small porch into a presentable sleeping apartment can be kept within £4 or £5. A simple porch can be built at a cost of 10/to £1 a running foot. For £20 very snug quarters could be built. In this respect, it is obvious, all depends upon the house, its material, and architecture.

In the arrangement of the porch the principle to be kept in view is the comfort of the occupant. While there is nothing more invigorating than porch life in winter with warm clothing, much harm may be done if the necessary protection is not provided. It must be borne in mind that not cold air, but fresh air, is the main desideratum. Deep eaves will help to exclude inclement weather. The

sides of the porch may be boarded closely a few feet from the floor, but the spaces above should be open, but, if possible, screened. An operable canvas curtain will keep out the storm.

If the porch is large, it can be transformed into a winter sun-parlour as well as a sleeping apartment by the use of a glass sash instead of wire screening. The sash should be hinged at the top, as folding or sliding windows will interfere with the main purpose of the porch as a sleeping out place. If it is to be used as a living room by day, some arrangement for heating will be required, for sunless days must be counted on. If the house is electrically lighted, the system can easily be extended to the porch.

In cold or damp weather the bed should be well warmed before use. In the ab-



THE WINDOW TENT OPEN

sence of warming pans, a hot-water bag will do. Several layers of thick paper between mattress and springs will prevent penetration by cold. The bed clothing should be light, but warm. An undue weight of cover is a burden rather than a protection.

Supposing the porches are to be included in the house plans; their location is an all-important consideration. When location is a matter of choice, the second floor on the west or north side is ideal.

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The northern and western exposures have disadvantages in summer; but the heat of the western sun is gone in the few hours before bedtime, and this discomfort is offset by protection from the morning glare. A southern exposure should be avoided, if the porch is to be a year round sleeping apartment, on account of the rigours of the late autumn, winter, and early spring.

The frame work of the outdoor sleeping porch should be strong and substantial. The screens which are removable are a great convenience; they may be made of No. 12 black enamelled mesh.

Hardwood is the best material for the construction of sleeping porches, for it firmly resists all influences of the weather that may tend to rot the soft woods.

A gas-pipe frame may be erected by the ocal plumber, and a tent of water-proofed awning cloth made to measure. The latter method is less expensive, while it serves the purpose perfectly.

What Is Nutritious Food?

C. P. MICHAELS

THE question of food combinations is of very great importance. As pointed out in a previous article, it is impossible to maintain health on a dietary of low, nutritious value. The system requires at least one part of muscle-building material to nine parts of energy-producing matter. Authorities state that four and a half ounces per day of what is called proteid matter is absolutely necessary to maintain the system in health.

What Is Proteid?

Proteid is the name given to the albuminous elements found in all vegetable foods. Peas, beans, lentils, and such foods contain more of it than any others. It is found in the lean portions of meat, also in wheat, barley, rye, the caseine of milk, and in a comparatively pure condition in the white of eggs. The albuminous elements are the body builders. They repair the waste that is continually taking place in the system as the result of work or exercise. Physicians tell us that the first requisite for strength or power of endurance is a satisfactory supply of albumin, and the body depends for this chiefly on the food taken from day to day. It is plainly manifest then that when proteid matter is not taken in sufficient quantity the system is unable to maintain prolonged exertion without using up the

small amount of albuminous matter stored in the tissues. The result is weakness, loss of flesh, and various minor ailments.

The majority of people, however, seem to think that the free use of albuminous foods is absolutely necessary. Flesh in some form is used at every meal, or eggs are used as a substitute. Often peas or beans are consumed freely with this, either in the form of soup or as a vegetable. But we should not forget that all vegetables contain a percentage of proteid, so that if more than the requisite quantity of albuminous matter is used, unless this is offset by the free use of fruit, the excess clogs the system, uric acid is produced, and the result is rheumatism or disease of the kidneys.

We see, then, that a deficiency of proteid matter is certain to result in loss of health and often of flesh, while an excess produces a tendency to disease, opens the door for it, in fact, by loading the blood with impurities from which the system cannot free itself. How important, then, it is to so combine foods that just the right quantity of proteid matter shall be supplied to the system to maintain health. We should not forget, however, that the system does not need a large quantity of such foods as beans, peas, and lentils, or even of flesh foods; and that, on the other hand, health cannot be maintained

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on a diet of potatoes, tomatoes, etc., without the legumes, as some vegetarians seem to imagine. Under the latter conditions the system craves the albumins, and a much larger amount of vegetable is eaten in the effort to obtain the proteid matter than would have been provided if the proper combinations had been made.

The frequent cases of nerve trouble, and the great increase of other ailments of to-day, prove that starvation still sits on many loaded tables. Why is it that all this sickness and misery of disease has swept down upon the people of the twentieth century like a destroying avalanche? Surely we need to study our habits and methods of living to find the cause, for we must acknowledge that these things are a special feature of the times in which we live, and that they were not common to earlier times.

What Constitutes Good Food?

It is admitted by physicians that the secret of health lies in using not

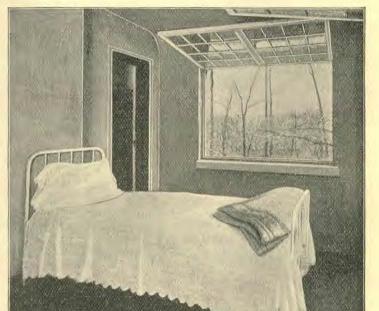
more than two or three kinds of simple foods at one meal. It is also necessary to select such articles as best agree with each other. Strength comes to us through the grains, fruits, and nuts much the same as it does to the horse and the ox. It is well to know how to combine these so that they will not disagree in the stomach. A moderate amount of fruit may be eaten by the majority of people at the close of any meal not containing vegetables. Fruits and vegetables seldom The reason for this lies in the agree. fact that vegetables have a coarse, woody structure that takes much longer to digest than fruit. The time required to digest cabbage, for instance, is from four to six hours, while ripe fruit digests in about one hour and a half. The consequence is that if fruit and vegetables are eaten together they become mixed in the stomach, and the vegetables keep the fruit back in the work of digestion—the fruit must remain until the vegetable is digested. The result is that the fruit

FRESH AIR MEANS HEALTH

undergoes fermentation, and stomach trouble results. People who suffer from slow digestion should avoid such combinations as fruit and vegetables, milk and vegetables, and even milk and fruit.

Good Food Must Be Digestible

The process of digestion is largely mechanical. The stomach is a muscle, and it literally pounds the food into fine particles, which are absorbed into the blood. The consequence is that the stomach cannot continue the work of digestion all day; like all other muscles it becomes tired and exhausted. The best foods, therefore, are those that digest easily. The staff of life, well-baked bread,



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is completely digested in about an hour. Baker's bread generally requires about three and one half hours. This is due to the half-cooked condition of the central portion of the loaf and the multitude of germs and yeast spores it contains. When this bread is turned into zwieback it quickly digests.

Rice, which forms a staple article of diet for a larger number of persons than any other cereal food, undergoes complete stomach digestion in one hour. On the other hand, the "roast beef of old England" requires three and one half hours in the stomach, and about ten to twelve hours in the intestines, before it is digested. Flesh foods generally require from three to five hours for stomach digestion, in addition to a considerable time in the intestines. From the standpoint of digestibility the grain foods are therefore the best.

Good Food Must Be Nourishing

We have already seen that the system needs and must have to maintain it in health a certain amount of albuminous It must also have a certain matter. amount of energy-producing material. This is supplied by the starch and fats in food. God has given us in a grain of wheat a perfectly balanced food. It contains about one part of albumin to about eight of starch and just the percentage of phosphates that the system needs. It would seem that God, anticipating man's needs, placed all that he required in a grain of wheat. Three generations ago the white flour of to-day was unknown. Bread was made from the wholemeal, with sometimes, perhaps, a little of the coarser material sieved out. The phosphates, the gluten, and the salts generally were retained in the flour. Bread made from such flour was indeed the staff of life. It afforded all the nutriment that the system required. Men grew strong and healthy on such food, coarse as it often was.

The staple food of the Arab to day is wholemeal bread with a few dates added, and he is able on this diet to carry a load of fifty pounds and keep pace all day with a fairly fast team of horses, and that, too, under the heat of the tropical sun of Africa, without showing any signs of exhaustion.

When God created man, He gave him a dietary of grains, fruits, and nuts. Gen. 1:29. Well would it be for all of us to return to the original diet with the addition that cooking provides for our altered conditions.

AFTER several experiments on the effect of tea and coffee on digestion, Sir William Roberts, M.D., F.R.S., writes: " It is seen that both tea and coffee exercise a powerful retarding effect on peptic digestion. With infusions of equal strength there was no appreciable difference between the two beverages; but inasmuch as coffee is usually made of greater strength than tea, its effect as dietetically used is more potent. Cocoa was found, with infusions of equal strength, to possess nearly as much retarding effect as tea and coffee; but as it is usually made with a strength of only about two per cent, its inhibitory effect scarcely comes into play in the customary use of this beverage. Strong coffee, the 'café noir' of France, is seen to have a very powerful inhibitory effect. Even so small a proportion as ten per cent of this strong coffee in the digesting mixture abated the speed of digestion very considerably, and with twenty per cent. digestion was greatly embarrassed. Considering the copious proportions in which we use tea and coffee with our meals, it is obvious that the retarding effect of these beverages is commonly brought into operation in gastric digestion. I could not detect any appreciable difference between the effect of tea infused two or three minutes and tea infused for fifteen or thirty minutes."

Do not tell how many ailments you have had during the last forty years.



The Harm of Teasing

F. BULLOCK, in "American Motherhood"

"MOTHER, make Fred stop," cries pretty Molly, running to her mother, her slender form aquiver with fright. "He has a horrid snake and is trying to put it on me. Oh-h-h!"—a fresh scream as Fred heaves in sight with the objectionable snake still held aloft on a stick.

Mother laughs a little and says, "Molly, don't be such a goose; you know that the snake is dead and won't hurt you a bit. Behave yourself, and stop such foolishness. Fred, you really ought not to do such things. You know it makes Molly wild to have a snake come near her."

"Aw, she don't need to be such a fool. If she didn't run, I wouldn't bother her, but its fun to see her run and yell when I just get near her. Just see," and Fred advances into the room, whereupon Molly screams again, and runs wildly upstairs, while Fred, with shrieks of laughter, goes outside again. Mother turns to her guests and says, "Molly is really too foolish for anything about snakes and worms or beetles. She knows Fred won't hurt her, but he dearly loves to tease."

How many times do we see this very thing in presumably well-ordered home life. The effect upon the girl is to cause her to feel her mother to be hard and unsympathetic, while the boy has been taught that it is "harmless fun" to tease a girl until she is on the verge of physical collapse, and that if he finds sport in the pastime, he is perfectly at liberty to pursue it as far as he chooses. I wonder if mothers could look into the future and see the wrecked lives that may be brought about by this "harmless" form of diversion, whether they would not pursue a radically different course. When Molly marries and becomes a "nervous wreck" within a few short years, will anyone think to look back to this ceaseless nerve strain through the formative period as a contributing cause?

When Fred marries, and his young wife loses her first baby, will they blame Fred who indulged in the same "teasing" habit he began with his sister, or will they say it is a "mysterious dispensation of Providence"?

Some time ago I noticed a statement in a paper that a young woman had shot and killed her husband. The terrible discovery of what she had done had driven her insane. Her grief-stricken mother stated that she had always been a timid girl, dreadfully frightened in the dark. Her husband had returned unexpectedly at night from a business trip, and without stopping to enquire as to the cause of the mysterious noise, she had fired the fatal shot. How much, I wonder, of this timidity and fright had been caused by the three older brothers mentioned, and who had, no doubt, enjoyed scaring the sister who was such a "'fraid cat."

I knew of a young married woman who was dreadfully afraid of dogs. Her young husband thought it a joke to bring his dog into the house and let it jump upon her. He thought her screams of fright were "funny." I wonder how "funny" he thought the idiot child which was their first offspring. When I saw him, that child was a great body of a man, over twenty years old, who had to be fed, dressed and undressed, who had no use of his limbs, and had never walked a step in his life.

A short time ago a mother whose son was being tried for murder came into court, and pleaded that she was to blame for her son's tendencies. She claimed that before her son's birth, her husband had teased her until she became frantic with rage, and her chief desire was to kill him; that she had, in fact, several times attempted his life with a knife, but her husband being a big man, and she a little woman, he had simply laughed at her and continued his teasing. She testified that from the time he was a little fellow her son had, at times, manifested symptoms of the same maniacal rage which had made him a murderer at nineteen. Who was the real murderer in this case, the frenzied lad, the grief-stricken mother, or the "teasing" father?

Physicians tell us there is no nervous connection between mother and child, that the only connection between the two is through the blood of the mother which nourishes the unborn child. Allowing this to be true, who can tell what is carried in the blood? "The blood is the life thereof." Science has proven that the blood of an angry person is poisonous to himself. A mother who is continually angered and excited during this delicate period, must inevitably pass on some of that poison to her offspring.

Granted a nervous, excitable mother, whose fears are played upon at this time, we are almost sure to have a nervous, excitable child. Granted a husband who is so ignorant or brutal as to torment his young wife (and "evil is wrought for want of thought, as well as want of heart"), we are almost sure to have a father who will think it equally good sport to torment the child. I recall a father whom I once saw with his oldest boy. Calling him to his side, he began to rub the little fellow's head roughly. The child screamed and struck out with his tiny fists. The father laughed, and explained to us, "I want him to be a fighter. I want him to grow up tough. It makes him so mad for me to rub his head like that."

I saw them again some years later; when his father spoke to him, he went as if dragged. I never saw him voluntarily go near his parent. He was two grades lower in school than the brother two years younger. I saw no signs that he would be either a fighter or tough, in the father's meaning of the words, but I did see him go into a furious rage with his younger brother and pound him until the father interfered with several cuffs on the head "to teach him how to behave."

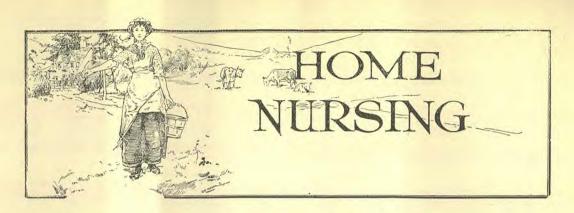
Are these cases extreme, or have you not seen exactly the same things yourselves, possibly many times? Only, perhaps you have not related cause and effect as I have done.

Ask your physician what he thinks of the "gentle art of teasing," and its effect in rousing the brutality of boys, and causing a wreckage of the nervous system of girls? If he is a wise physician who has thought upon this matter, he will give you facts which will cause you to open your eyes.

Perhaps it will cause you, if you have Freds and Mollies of your own, to pursue a widely different course of treatment with them.

WE have not tried the following hint ourselves, but we pass it on to our readers for what it is worth: "A medical authority gives the following directions for making a hot compress: Wet the compress with tepid water, and then iron it rapidly with a very hot iron. This produces sufficient steam to hold more heat, and obviates the necessity of wringing out excessively hot cloths."

We clip this item from a recent issue of *Popular Science Siftings*, a magazine which explains the latest scientific news to the "man in the street."



Prevention of Colds

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

SOUND teeth, whether there are few or many left behind, and a clean mouth are essentials to good health, and are among the best preventives against colds, influenza, and other respiratory disorders. Fashion demands that the face should be washed at least once a day, a procedure which is valuable both for cosmetic and hygienic reasons. The laws of hygiene demand even more emphatically that the mouth and the various organs of the mouth, including the teeth and tongue, should also be thoroughly cleansed at least once a day.

Some Preventives

1. The dress is an important matter in the prevention of colds, and most people find it necessary to dress according to the weather. While coddling and overclothing oneself is unwise, still it is necessary to dress sufficiently warm so as to be able to have an abundance of fresh air in the working or sleeping rooms, and this, of course, means the open window. Most people appear to get on better with a soft, woollen garment next to the skin, but there are those who find cotton or linen mesh equally or even more satisfactory.

2. But do not overlook the foot-gear. As a rule, ordinary men's foot-wear is far more satisfactory than that supplied for women. Broad, low heels and thick soles are in order, and half-inch soles are desirable in wet weather. Thick soles, although they do add to the weight of the boots and shoes, nevertheless make for comfort in walking. It is a common observation that ladies who wear thin soles are poor walkers. There is no objection to thin soles indoors, but the walking boots and shoes should always be provided with strong, thick soles and, if possible, soles that are impervious to moisture. A layer of cork immediately under the in-sole will make the soles impervious to wet and at the same time add to the lightness of the boots.

3. Whenever the feet get cold or damp it is wise to change both the hose and the shoes. It is a good practice to wear goloshes when going out in the rain or when the ground is wet, but never retain them indoors. This is far preferable to toasting the feet before the fire. Woollen bedroom slippers are useful indoors, especially after being out and getting the feet wet. A good way to dry boots and shoes is to stuff them with old newspapers that have been warmed in the oven.

4. Bedroom hygiene is of the greatest importance in the maintenance of health and the prevention of colds and coughs. While there is no objection to a fire during the day, which helps to dry the room, it is not necessary, and a cold bedroom makes for sound, refreshing sleep. The windows should always be open, both day and night, but plenty of warm, woollen blankets should be supplied, and a hot bottle placed in the bed for two or three hours before retiring to ensure the absence of any dampness. If the feet are cold it is a good protection to wear bed socks, or even to warm the feet by the use of a hot bottle for a few minutes, after which remove the bottle from the bed. The circulation of the blood to the lower extremities is most satisfactory when the limbs are straight,



NATURE'S FOOD

so do not crouch up in bed if you want to get warm and sleep in comfort. See that the shoulders are covered. If they are liable to exposure during the night, it is desirable to wear a warm woollen pyjama coat or even an extra coat. This is often necessary for those who sleep out of doors in winter. Sleeping out of doors on the balcony or verandah is the ideal method and brings the best and most refreshing rest.

5. One of the best means of preventing colds, coughs, and influenza, and also such dangerous diseases as pleurisy, bronchitis, and pneumonia, which are liable to follow a neglected cold or influenza, is to keep the mouth and teeth scrupulously clean, and also to adopt some regular procedure such as the following for checking incipient colds before they have properly developed. A slight irritation of the throat or congestion of the nostrils, a feeling of chilliness, sneezing, etc., are warning signals that a cold is about to develop, and the proper time to treat it is at the outset.

6. As soon as there is the slightest symptom of a cold, gargle the mouth with a dilute, warm solution either of toxol, jeysol, izal, lysol, or sanitas, and repeat the gargling every two hours. A stock solution is made by adding one teaspoonful of the antiseptic to twelve ounces of water (three-fifths of a pint). It is well to know that a tablespoonful of water is equivalent to half an ounce. To prepare the gargle, add an equal quantity of hot water. The gargle is an antiseptic and therefore a poison, and should not be swallowed.

7. If the teeth have not already been cleaned, cleanse them thoroughly with a medium soft brush, using a good tooth paste; and see that they are cleansed regularly after each meal. To keep the tooth brush clean, soak it in the gargle solution for a few minutes once or twice a week and then rinse in clean water and dry.

8. If the tongue is dirty, scrape it with a tongue scraper or some suitable instrument to remove the fur, which consists chiefly of microbes. A whalebone tongue scraper is a very useful instrument for the toilet table. It is also sometimes desirable to brush the coated surface of the tongue with a good tooth paste and then rinse with warm water or with the warm gargle solu-



NATURE'S MEDICINE

tion. Remember that a furred tongue is dirty as well as unhealthy.

9. To cleanse the nostrils, which also require attention, snuff up warm salt solution (a teaspoonful of common table salt to a pint of warm water), or, better still, use the gargle solution after adding three parts of warm water to it. After washing out both nostrils, snuff up medicinal paraffine so as to line the mucous membrane with the oil, which acts as a protective and also has a soothing effect. This treatment of the nostrils should be repeated morning and evening until the To snuff up cold has been aborted. fluid into the nose, close one nostril by pressing the first finger of the corresponding hand against it and dip the other nostril into the tablespoon or small basin or cup containing the fluid and then draw in the fluid by vigorous inspirations until it appears in the mouth. Repeat two or three times. The gargle must not be swallowed, although there is no objection to swallowing the paraffine.

10. Beware of those suffering from colds or influenza, for both are contagious or "catching." Sneezing is a prolific way of spreading colds, for it throws numberless particles of germ-laden saliva and phlegm into the air to contaminate others. Coughing is an almost equally dangerous operation in the presence of well persons. Always sneeze and cough into a handkerchief and thus prevent the cold from spreading to others. Both colds and influenza, as well as measles and similar catarrhal affections, are most contagious in the early or sneezing stage.

11. As regards diet the person threatened with a cold should be very abstemious, and may even skip a meal or two or take fruit meals in place of the ordinary fare. The old saying, "Stuff a cold and starve a fever" is sheer nonsense, for all colds are accompanied by a rise of temperature, if not actual fever, and eating freely would only serve to aggravate the symptoms and prolong the illness. Fruit, either fresh or stewed, is the natural medicine of the body and should be taken freely at this time, while meat and other flesh foods should be strictly avoided. But it is not wise for a weak or frail person to starve completely, although a strong, robust, well-nourished person can oftentimes do so for a day or two to advantage. Drink freshly-made lemonade or orangeade freely or plain hot water, taking from two to four pints or more during the day, but drop the tea and coffee, which are injurious stimulants and more likely to do harm than good.

12. One of the first steps to take in aborting a cold is to cleanse the bowels. To accomplish this take a tepid $(80^{\circ} to 90^{\circ} F.)$ soap enema, using about three pints of water. To prepare the enema, dissolve in the three pints of water a generous table-spoonful of thin shavings of some pure soap.

13. If a cold still threatens, soak the feet in very hot water for ten or fifteen minutes and at the same time sip a pint of hot water. This can be done by merely removing the shoes and stockings, or by disrobing entirely in a warm room and then wrapping up well in woollen blankets so as to prevent a further chill. A cold compress should be applied to the head, especially if there is any fever, and it should be frequently renewed during the hot bath. This treatment will help to equalise the circulation and cause perspiration. This treatment is followed by a tepid sponge or, if available, a needle spray, beginning with hot and ending with cold water. After the body is thoroughly dried, it is well to administer an oil rub. To give an oil rub use olive or nut oil: refined paraffine, vaseline, orany similar oil, or even fresh butter, may be employed. Use but very little so as not to leave the skin greasy, and rub it well into the skin over the entire body except the head and face. Such a rub, properly administered, will occupy from ten to twenty minutes. After the treatment the patient should retire to a warm, well-aired bed in a wellventilated room where the windows are wide open. A further glass of hot water may be sipped every hour.

14. But do not on any account take hot whisky, brandy or rum. Spirits, or indeed any other form of alcohol, do not bring warmth or conserve the heat of the body, but on the contrary help to rob the vital internal organs of their blood supply, draw the blood into the skin and consequently disperse it more rapidly, thus lowering the temperature of the body. It is the greatest fallacy to argue that alcoholic beverages protect against cold or "colds," for their influence is the exact reverse.

A Practical Talk on Home Nursing

Symptoms and Their Significance

MINNIE GENEVIEVE MORSE

THERE are few things more important for a mother to know than when to call the doctor. The ability to recognise the signs of illness, and to distinguish between those that are trivial and those that are of serious import, has a large part in the making of a successful nurse, whether

trained or untrained. It may be said, however, that while it is not well to be too much of an alarmist, it is better for the amateur to err on the safe side, and send for a physician unnecessarily, than to run the risk of delaying Experience enables a too long. trained nurse to make almost as good a diagnosis in many cases as a doctor would, and by careful study and the cultivation of her powers of observation the mother of a family can qualify herself both to know illness when she sees it, and to make a satisfactory report to the attending physician when a member of the household is ill.

The most important signs of illness are deviations from the normal in the temperature, pulse, and respiration; in serious disease there is usually disturbance of one or more of these "three vital signs," as they are sometimes called. Every mother should have a fever thermometer of reliable make, and should thoroughly understand its use, for a very

large proportion of the ills that flesh is heir to begin with a rise of temperature. The heat of the body is produced by the chemical changes that go on within it, and an over accumulation is prevented by the action of the skin. As long as there is a perfect balance between the amount of heat produced and the amount given off, all goes well, but when this balance is disturbed the body temperature is either raised or lowered, and this is a sign that something is going wrong; in other words, that disease is at work somewhere. A change in temperature may be the first indication of illness, occurring even before

> there is any very decided feeling of discomfort.

The temperature of the body in health is about 98° F. The clinical thermometer is marked off into fifths of degrees, and opposite the normal point there is a much heavier mark. There is a daily variation of temperature. in health, of perhaps a degree, the highest point being usually reached during the evening, from five o'clock to eight, and the lowest in the early morning hours, from two to six. There is also sometimes a slight difference between different individuals. A fairly safe rule is that a temperature not more than a degree above or below the normal point is a healthy one. A child's temperature may be expected to be slightly higher than that of an adult. about 99° is normal for little children. It also varies much more easily than an adult's; a slight digestive disturbance or an attack of constipation is often enough to cause a rise.

If the temperature is found to be nearing 100° on the one hand, or 97° on the other, something is wrong. The greater the divergence from the normal, the more serious is the condition. There is only a small range, not more than 20° at most, within which life is possible; if the temperature goes as high as 108°, or as low as 93°, the patient usually dies. In heat



strokes, however, very high temperatures are sometimes recorded in cases where the patient recovers, and the same is true occasionally in cases of hysteria. A temperature much below the normal is more serious than a rise of the same number of degrees. A temperature of 100° to 102° means a moderate degree of fever; 103° to 106° is a high fever, and anything above 106° indicates a very grave condition. Anything lower than 98° may be called subnormal, while a temperature approaching 95° usually indicates a collapse, which is very dangerous, and often fatal. During the crisis of some fevers, however, the temperature suddenly falls to a point considerably below the normal, to which point it gradually returns. A fever temperature is much more changeable than a normal one, and a slight thing will often alter it. In most fevers, the temperature follows the usual daily variation, being lowest in the early morning and highest toward night; but it may depart widely from this regularity, the highest and lowest points occurring at entirely different times of day. In some diseases the rise of temperature is sudden and rapid; in others, it is slow and insidious, beginning with only a slight change from the normal, but becoming a little higher each day. Sometimes the decline of fever is sudden, the temperature dropping at once to the normal or below it; in other cases it is gradual, there being a slight improvement each day until the normal point is reached. The onset of new complications of illness is usually announced by the unusual behaviour of the temperature.

In taking a temperature, the nurse should see that the mercury in the thermometer is shaken down well below the normal mark. The thermometer should be washed in cold water before and after using; washing it in warm water will cause the column of mercury to rise. In contagious disease it should be washed in a disinfectant solution. The most common place for taking the temperature is in the mouth, but this is not a safe procedure with small children or delirious patients, as they may bite off the thermometer bulb. In taking a temperature by mouth, the bulb end of the thermometer is placed under the tongue, the lips tightly closed, and the thermometer left in for two or three minutes. Temperature should not be taken by mouth immediately after the patient has been eating or drinking anything very hot or very cold, for this is likely to result in a record that is both startling and untrustworthy.

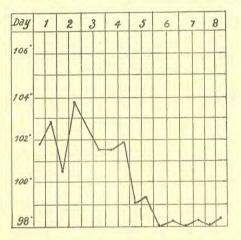
When the temperature cannot be taken by mouth, it is sometimes taken in the axilla, or armpit. The axilla being a much more open cavity than the mouth, the result is not so accurate; it will take the mercury longer to rise, and the temperature may be expected to be slightly lower than in more closed cavities. The axilla should not be exposed to the air for some little time before the temperature is taken. It should be carefully dried from perspiration, and after the thermometer is placed in position the arm should be placed close to the side, the elbow bent so that the forearm lies across the chest, then the clothing and bed covers should be drawn up closely to exclude the air, and the thermometer left in position for about five minutes. In those who are very ill, and in infants, however, the best place to take the temperature is in the rectum. This being a closed cavity, the record may be expected to be slightly higher than in the more open localities. The patient should be placed on the left side, with the knees flexed, and the thermometer, having previously been oiled, inserted about two inches. Where temperature is taken by rectum, it is well to have a separate thermometer for the purpose. During the taking of a rectal temperature, the patient should be kept perfectly still, as a sudden movement might break the thermometer. leaving the broken pieces in the rectum.

Temperature is usually taken in illness morning and night, but if the patient is very ill, the doctor may wish it taken oftener. The record should be written down at once, so that there may be no

JULY-AUGUST

possibility of forgetting it. Charts for recording temperature are used by trained nurses, and are very convenient and not at all difficult to use.

The pulse is quite as important as the temperature as an indication of the patient's condition. When the chambers of the heart contract and force a new supply of blood into the arteries, which are already fairly well filled, a wave-like



pulsation is sent the whole length of the arteries, which is what we know as the pulse. It can be felt wherever an artery comes to the surface of the body, but the most convenient place is at the wrist, where the pulsation of the radial artery To find the radial pulse, may be felt. one should lay two or three fingers of the right hand along the course of the artery, which is on the inside of the arm, on the thumb side of the wrist. Only a slight pressure is necessary. Other arteries that are especially convenient for this purpose are the temporal and the carotid; the former can be felt at the temple, the latter at the side of the neck, close to where the cords may be seen to stand out when the head is turned. The temporal artery is the best place to feel a child's pulse when it is asleep. The carotid pulse is very easy to find and count, as the artery is a large one.

The condition of the heart is pretty plainly indicated by the character of the pulse; whether it is beating fast or slowly, strongly or feebly, regularly or irregularly. In the great majority of diseases the pulse rate is increased. About seventy-two beats to the minute is the average rate in an adult; in children of eight or ten years it is eighty or ninety, and in a baby from one hundred to one hundred and twenty. In old age it is usually slower than the normal. Women are apt to have a more frequent pulse than men. The pulse rate is higher when sitting up than when lying down, and faster when standing than sitting. It is increased by exercise, digestion, stimulants, and excitement, and many drugs influence it. Very nervous people often have a rapid pulse at all times. A pulse rate above one hundred may be called fast, and one above one hundred and twenty is alarming.

There are many things about the pulse for the nurse to notice besides its rate. Sometimes it is strong and full, sometimes small and weak. Sometimes it is easily stopped by pressure; it is then called compressible. An irregular pulse is one in which the beats do not follow one another in a regular rhythm, or are not alike in force or character; or both of these conditions may be present. An irregular pulse may indicate a disease of the heart, or some other serious condition. An intermittent pulse, however, is sometimes found in a healthy person; here the beats are regular in force and length, but one is occasionally lost, perhaps at regular intervals, as every tenth or twentieth beat, or perhaps at irregular What is known as the *dicrotic* intervals. pulse, resulting from a relaxed condition of the arteries, is often found in typhoid fever; after the ordinary beat there is a second smaller one, which an inexperienced person might take for the next regular beat, counting the pulse rate as double what it really is. Whether this type of pulse is present or not may be ascertained by counting the impulses of the heart against the chest wall and comparing the result with the pulse as counted. If the arteries are healthy, they should feel firm and elastic to the finger.

(To be concluded next issue)

NEWS AND VIEWS

JULY-AUGUST



BEWARE ! A drug sold under the name of "Urotropin," but whose chemical name is hexamethylenamine, has been declared by prominent medical associations to be a dangerous drug to use, as it has many deleterious actions. Its only safe use is for fuel.

INFANTS of France are much more rugged this year than were the infants of a year ago. Some have suggested that the reason for this may be found in the fact that owing to war conditions many more mothers nurse their infants than did aforetime.

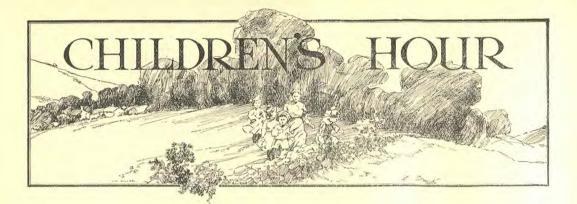
ACCORDING to Dr. H. T. Burrows, the germ of infantile paralysis enters the victim by the mouth, and does its first, if not its greatest, harm in the large intestine. But, in spite of this declaration, there is nothing in the incidence of cases which indicates milk, other foods, or water to be means of transmission.

THE progress of military sanitation has made the British trenches in France more immune from disease than the houses in London. This is proved by the fact that the rate of illness among the soldiers, including colds and influenza, is less than the rate in England's capital, while the death rate from disease in the trenches is only three per thousand men.

THE old-fashioned glass milk bottle was ever condemned by doctors and health experts as a pernicious germ carrier. A new machine has now been invented, capable of manufacturing paper milk bottles at the rate of five thousand an hour. The machine is 97 feet long, and costs over $\pounds 3,000$. Only three men are required to operate it, because from beginning to end steel fingers manufacture the bottles direct from the wood pulp, instead of from the finished paper. Eight minutes see half an ounce of the wood pulp converted into the completed bottle.

OWING to the great scarcity of money. particularly gold, due to the war, paper money is being used extensively in nearly all countries directly affected. "The remarkably filthy condition these notes soon acquire caused the authorities of Rouen [France] to ask the Director of the Municipal Laboratory of the city to make analysis of the foreign matter incrusted upon these notes." As a result of the investigation it was found that after a circulation of only eight or ten days, this paper money had collected no less than twenty per cent of its own weight in dirt. This coating of fatty, greasy matter contained the most virulent disease germs in great abundance. Coin was always considered a great factor in spreading disease, but it seems as if paper money is going to be a more potential one still.

A MAGAZINE dealing with health topics gives us the following information: According to a report from Greece, the disgusting method of packing currants by foot is to give way to machine packing. Because of the fragile nature of the fruit, too much pressure in forcing it into barrels or cases is injurious, and hitherto the only practicable method has been packing by the feet of men and women. A machine has now been produced which automatically cleans and packs more than 150 cases of currants an hour without contact of human hand or foot. All dust, grit, stems, etc., are removed, and the fruit flows into cases or barrels placed in constant succession in a barrel holder. where a large piston-like disc presses them down with exactly the requisite force, layer after layer, until the receptacle is filled. The standard barrel can be filled in about twenty-five seconds.



The Hour-Glass

JIMMY is aged eight, and is quite pleased about it, for he has a sister who is only six. They both have the same grandfather-a nice old gentleman, who has not much hair, and always wears a frock-coat except when he is in bed; and one day last week the grandfather spent quite a time in a rather strange-looking second-hand furniture shop. When he came out he had a small parcel, which he carried carefully. As he entered the house where Jimmy lives, the boy asked questions-for all small children are great at wondering what is inside parcels. "Wait till Christmas day," was all the answer his grandfather gave him. Jimmy had to wait. What do you think was in the parcel?

Jimmy knew on Christmas morning, for, to his surprise, the little package was among the presents by his place at the breakfast-table. Outside was a label-" To James, with grandfather's best wishes." He dragged at the string, and tore off the paper, and stared at what he found. It looked like two small glass globes joined together, and in the lower globe was some brown stuff. "Turn it upside down," said mother. He obeyed, and at once the brown stuff began to run " It is through into the other globe. sand," explained his grandfather. "That is what they call an hour-glass. The sand takes an hour to run from one part of it to another, and, when clocks and watches were less common, people used hour-glasses to measure time."

This was very interesting, and for the next three or four days Jimmy enjoyed himself with his present. When he took it into the kitchen, cook annoyed him by calling it an egg-boiler. But as she at once said she was sorry, she was forgiven. Then, on New Year's Eve, about six o'clock, a terrible thing happened. By accident Jimmy knocked the hour-glass off a table, and it lay on the carpet just a mess of broken glass and spilt sand. Now, Jimmy is not great at crying, but the catastrophe so troubled him that he just howled loudly till grandfather came and took him on his knee and comforted him. Boys of eight are not keen on sitting on knees, but [immy was so miserable he scarcely knew what was happening.

When the saddest kind of feeling felt rather different, grandfather began to talk in other tones. "Strange," he said, "how many people would be sorry to break an hour-glass! Yet how much precious time they ruin and cast away without regret !" Jimmy wanted this explained, and his grandfather added : "When we are lazy at lessons, or inattentive at church, and always when we do anything wrong, we are ruining opportunities and throwing away precious time. This is very serious, for while you can buy another hour glass when one is broken, time once ruined and cast away is gone forever." "I don't want another hour-glass," said Jimmy, wriggling, as he realised how he had wasted hours during that year. "I'd rather have a watch next

THE CHILDREN'S HOUR

JULY-AUGUST

Christmas." Grandfather smiled, and said: "So you shall, old chap, if you'll fetch the Bible now, and read out loud verse 12 of Psalm 90, and remember the words all next year." Jimmy at once felt much better about the broken hourglass, and said, "Thank you," and got the Bible. "So teach us to number our days, that we may apply our hearts unto wisdom," was what he read aloud.— Selected.

Why "Teddy" Wears a Medal

"WHAT'S the good of giving a medal to a dog?"

No doubt some people asked this ques-



AN INTELLIGENT DOG

tion when they picked up the daily papers one morning not long ago and read that a big dog named Teddy had been given a medal by the New York Women's League for Animals for saving the lives of two children who were drowning in the Hudson River.

Teddy is a handsome, big Newfoundland dog, and you could not make many people believe that he has not as much sense as some people have. It is certain that he had sense enough to know that two children were drowning when he saw them struggling in the waters of the river. He rushed into the stream and brought both of the children to shore in safety. How did he know that they were drowning? He had some kind of dog sense that made him aware of this fact.

The intelligence of most Newfoundland dogs is remarkable, and the boy who would say that Teddy is "no fool" would only be giving the fine big dog his due. He is not the first dog to be given a medal for saving human life. No less than six other dogs are wearers of medals similar to the one given to Teddy.

He is an extremely amiable and friendly dog, the property of Mr. Olaf Hansen, of New York. Teddy modestly extends his paw for a "handshake" whenever anyone feels disposed to grasp it in friendliness. How much he "sensed" the distinction of being awarded a medal for bravery we

do not know. It is certain, however, that he knew enough to save human life when it was in danger, and that makes him worthy of the medal he now wears on his collar.— "Our Dumb Animals."

Betty's Colour Party

Kate Meldram Buss

"WHY, Lily Williams, there's a big spot of green on your dress!" "Where is it ?" Lily

asked, as she stopped her game of drop the handkerchief.

"Turn round," Betty answered, "and I'll show you."

But Betty could not find the spot.

"I know I saw it," she said.

Aunt Fanny laughed. "You must have been looking at Lily's sash," she explained.

"But what has my red sash to do with a green spot?" Lily asked.

"Well, let's stop playing, and I'll tell you something about colours," Aunt Fanny said. And the ten boys and girls gathered round Aunt Fanny.

"Stand out in the sun, Lily," Aunt Fanny directed.

JULY AUGUST

"Each of you must look steadily at Lily's sash until I tell you to stop," said Aunt Fanny, "and then look quickly at the white of her dress, and tell me what you see."

Nine pairs of eyes looked at the red sash.

At the end of a minute Aunt Fanny said, "Now look at the white dress."

Bobby Jackson was the first to speak.

"Why, Miss Fanny, it looked green just for a moment, but now it's all white again."

"The sun likes to play such tricks," Aunt Fanny explained.

"Wouldn't the green show if the sun didn't shine?" Bobby questioned.

"No," Aunt Fanny answered. "The light of the sun is necessary. I'll tell you how you can have some fun at home. Find a red, a blue, and a yellow book, and place them, one at a time, in the sun on a piece of white paper. Then ask your father what colour you are going to show him, and see if he can tell you."

Just then Betty's mother came out into the garden, carrying a dish of ice cream.

"Well," cried Bobby Jackson, "the one who made that ice cream knew how good red and green look with white!"

Innocence at Home

"My dear," said the young husband, did you speak to the milkman about there being no cream on the milk?"

"Yes. I told him about it this morning, and he has explained it satisfactorily. I think it is quite a credit to him, too."

"What did he say?"

"He said that he always filled the jug so full that there is no room on the top for the cream."—*Farm and Home*.

ROBERT: Mamma, my stomach says its dinner time.

Mamma: You'd better go and see what time it is.

Robert (after an inspection of the clock) : Well, mamma, my stomach's three minutes fast.



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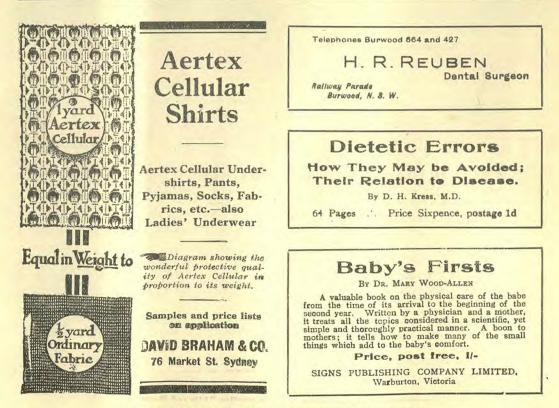
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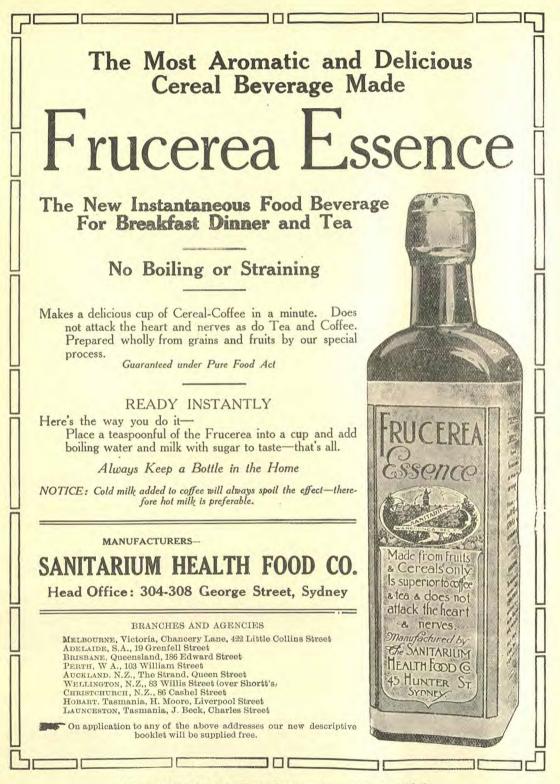
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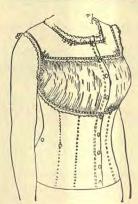
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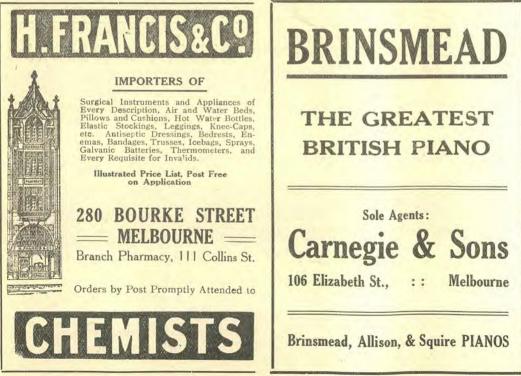
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