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Medical Contributors: W. Howard James, M.B., B.S., Melbourne; P. M. Keller, M.D.; Florence A. Keller, M.D.; A. Stuttaford, M.D.; Franklin Richards, M.D., C.M., Montreal; Eulalia Richards, M.D.

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LIFE



HEALTH



Vol. 4

OCTOBER-NOVEMBER, 1914

No. 5

## Influenza

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

SINCE the great epidemic of la grippe of over twenty years ago, which extended from Russia to almost all parts of the world, influenza has become "endemic" in nearly every country; *i.e.*, it now develops from poisons already existing in any part when the conditions become favourable. It is undoubtedly conveyed through the atmosphere, and epidemics are especially prevalent in dry weather, perhaps more so in spring than any other time of the year. A heavy rainfall clears the atmosphere, and the germs remain dormant in the earth again until the conditions again become favourable for their development. Influenza is really an infective fever, and is caused by a definite micro-organism known after its discoverer as Pfeiffer's bacillus. After the introduction of the specific bacilli into the system, there is an incubation period, a time in which the micro-organisms multiply sufficiently to produce definite symptoms. Undoubtedly the bacilli are very frequently taken into the system without producing the disease. Where the health is good and the number of bacilli introduced into the system are comparatively small, the leucocytes, or as they are now known, the phagocytes (germ-destroyers),

destroy the infecting agents. Abstinence from food lessens the number of leucocytes, or white corpuscles, and then the liability to be overcome is greatly increased. An impure state of the blood from unsuitable or excess of food will also lessen the activity of the phagocytes, so if we wish to remain immune from the disease we must live on good, wholesome food, food which will not load the system with waste products.

There is always more than one cause for every disease. Diphtheria and typhoid germs, for instance, may exist in the mouth and throat for a considerable time, but the health of the individual is such, that the conditions are unfavourable for the active development of the micro-organisms, and the individual escapes the disease. These individuals, however, may be the unconscious carriers of the disease to others who are less fortified than themselves. Some are more susceptible to one infectious disease than to others, and may readily develop typhoid fever or diphtheria, and yet be insusceptible to influenza, or *vice versa*. With really good health, under a moderate dose of infective germs, the specific fevers will not develop. Nature's laws have been broken, most probably unconsciously, in the develop-

ment of all diseases. The more we live in harmony with the laws of nature, the better we attend to our general health, the less liable we are to all forms of disease. Influenza seems to depend less on the state of the general health than most diseases. A person, however, may be apparently perfectly well, and yet have some catarrhal condition about the throat or nose, and these conditions are generally associated with some slight digestive disorder, the tongue is not perfectly clean. These unsuspected, catarrhal spots often constitute the soil in which the bacilli develop, and thus infect the whole system.

In the case of influenza the incubation period, the time in which no symptoms are developed, lasts from one to four days, according to the dose of infection and the state of health of the individual. The disease generally sets in abruptly with fever and a feeling of chilliness, there may be even a severe rigour—a shivering extending over the whole body. The fever ranges from 100° F. to 105° F., and is sometimes accompanied by unconsciousness, which, however, as a rule, lasts but a few hours. The fever lasts a variable time; with some it may pass off in twenty-four hours, but with others it may last ten or more days, especially when proper treatment is not adopted. Often the fever is of a remittent time, being only observed in the latter part of the day, or at intervals of twenty-four or forty-eight hours. Severe headache, a general aching, and great prostration, out of all proportion to the apparent cause, are characteristic symptoms of the disease. All, however, are not attacked in the same way. The special conditions of the general health at the time will decide the form the disease will assume. Influenza is especially noted for attacking the weakest parts, whether they be the respiratory tract, the alimentary canal, or the nervous system. There are four well-marked forms of the disease: (1) The respiratory form. This is the most common form. There is a severe running of the nose (coryza) with some pain or soreness about the tonsils or pharynx, and a

severe cough. The appetite is lost, and food loses its characteristic taste; the loss of taste for tea and tobacco is very common. The cough is often very violent and persistent, and comes on in paroxysms. Sometimes a general aching and extreme weakness are the only symptoms complained of. The second variety of influenza is "the nervous form." This is often the most persistent, for it attacks those who have some general nervous weakness; the nervous symptoms may last for weeks. At the commencement there is generally slight fever with specially severe headache; and the pains in the back and limbs and general weakness are particularly well marked. The third variety is, "The gastro-intestinal form." This is frequently called gastric influenza, and is most liable to attack those who suffer from general digestive troubles. In addition to the general symptoms already given there is nausea, vomiting, abdominal pain, and perhaps a troublesome, watery diarrhoea. The prostration may be very marked, even to the point of collapse. The fourth variety, "The typhoid or febrile form," is fortunately rare. Frequently it can only be distinguished from typhoid fever by a microscopic examination of the blood, and the discovery of the Pfeiffer's bacillus. Sometimes the fever remits with frequent chills, and thus simulates malaria. In this typhoid form there may be delirium with dry, brown tongue and other symptoms of typhoid fever.

#### Treatment

As a rule influenza is treated altogether too lightly. It is only when the great prostration drives him to bed that the sufferer will give in. If not quickly attended to the complications may be serious. Bronchopneumonia, pleurisy, and pneumonia are common complications; sometimes a quiescent tubercular trouble is made active. The heart at times becomes affected. Frequently influenza is followed by various forms of neuritis, and sometimes even by brain fever, or it may be the antecedent of neurasthenia. In the gastro-intestinal type catarrhal

jaundice and enlargement of the spleen sometimes result. Eye and ear trouble frequently remains after the disease. We have given rather a lengthy description of the disease and its complications in order to show the absolute necessity for thorough treatment at the very commencement of the disease. The idea that the disease can be worked off is certainly an unsafe one to hold. Apart from the complications mentioned the disease may remain for weeks when, with proper care, it might be eradicated in a few days.

Influenza patients are very liable to chills, which prevent the blood from getting rid of its impurities and waste-products, and give rise to respiratory troubles with very severe cough, consequently there is no place like the bed during the first day or two of the attack. In order to get rid of the poisonous products of the influenzal bacilli, as well as the general waste products of the system, a good sweating procedure should be given as early as possible. There is nothing better than a hot sea-water bath followed by a cold shower, after which the patient must go to bed. Seven pounds of bay salt to thirty gallons of hot water will make a good bath. This should be as hot as can be borne, 105° to 108° F., according to the general strength of the individual. The duration of the bath should be from twenty to thirty minutes. Cold drinks may be given during the bath to relieve the faintness that may be produced by the heat. Cold, wet compresses to the head should be constantly applied during the bath. This treatment relieves the general aching, reduces the temperature, drives out the poison through the pores of the skin, and a good sleep is almost invariably the result. Hot blanket pack, fomentations to the spine, electric light bath may be substituted for the hot salt water bath, but all must be followed by a cold sponge and bed. These hydro-pathic treatments are infinitely superior to medication with drugs, although they entail a little more trouble. In order to keep the phagocytes active a tepid or cold sponge should be given the patient twice

daily while in bed. Probably the one hot treatment will be sufficient. The great prostration is not an indication for a liberal dietary; the prostration is due to poisons in the blood, consequently no food should be given that will increase the difficulties of germ-destroying white corpuscles (the phagocytes). The patient may crave for beef tea, chicken broth, and similar dishes, but these would only increase the amount of waste products in the blood. There is nothing so refreshing as a good fruit diet; oranges, pineapples, grape juice, and well-matured apples should enter largely into the dietary. Milk and cereal foods help the action of the leucocytes in destroying or getting rid of the blood poisons. The diet should be nourishing, but meat and rich food must be avoided.

The room of the patient should be large and well ventilated, both for his own sake and for the sake of those attending on or visiting him. Draughts, of course, must be avoided. There is no surer way of becoming infected with the influenzal bacilli than by remaining in the room of a patient where there is no fireplace and no ventilation, and plenty of furniture and drapings. Where there is free ingress and egress of air the poison becomes diluted and more easily destroyed when inhaled into the lungs. It is when a large dose of the poison is inhaled that the system is overcome. Again, a free supply of air increases the power of the phagocytes and the feeling of well-being of the patient. There is no objection to warming the room with a fire as long as there is abundant ventilation; in fact the warmed air often lessens the excessive coughing, and helps, under this condition, sleep. In coughing, a handkerchief should be held before the mouth, otherwise the infective phlegm may be ejected three or four feet into the room. All handkerchiefs after use should be boiled at once, or allowed to soak in some disinfecting solution, as, for instance, two and a half per cent solution of carbolic acid (one tablespoonful of acid to a pint of water.)

# Eye-Strain and Errors of Refraction

By FRANKLIN RICHARDS, M.D

THE perfect eye is so uncommon that one rarely meets with it in practice. Before the writer is the record of examinations of four thousand eyes, and of these but fifty were perfect. The proportion is one perfect eye in eighty. The remainder all show errors of refraction, though some too slight to necessitate correction. As one's bread and butter may depend upon the integrity of sight, it is well to know enough about the eyes and the principles on which good sight depends to recognise the symptoms of eye-strain in one's self and in growing children who are often put at great disadvantage through uncorrected errors of refraction.

What is an error of refraction, and to what do such errors of refraction lead if they persist for years uncorrected?

Refraction has to do with the assorting, or focussing, of the rays of light which produce an image or picture of the object looked at on the sensitive retina of the eye. Such a picture will be sharp or indistinct as refraction is perfect or imperfect—or it would be under normal conditions. As a matter of fact, distinct vision often is attained in spite of errors of refraction, but it costs too much to attain it. In other words, accommodation is strained, the muscles which focus rays of light are overtaxed and held at too great tension, and this constant tension we call eye-strain. Errors of refraction, then, lead either to imperfect vision or to eye-strain; and in most cases they lead to both, though it may take time—or a very accurate eye-test—to make this latter fact apparent.

The symptoms of eye-strain may be marked or slight, depending on the efforts put forth to see clearly and the endurance of the patient; thus the narrowed lids and wrinkled brow, often said to indicate deep thought, are more often indicative of eye-strain. Crow's feet and other wrinkles about the eyes are also common evidence of eye-strain, resulting from the

constant screwing up of the muscles about the eyes in efforts to see things distinctly. Such wrinkles denote, if nothing more, undue expenditure of nerve-force which would better be conserved for other uses. It is surprising to note what relaxation of muscles, widening of lids, and opening of half-shut eyes, promptly follows the correction with lenses of these tired, overstrained, screwed-up eyes.

One needs only to watch a class of children at sewing or other fine work to see much evidence of eye-strain. Some of the children may be found holding their work within six inches of their faces; some frowning, squinting, or grimacing, putting out their tongues, and twisting them about, and opening and working mouths and lips.

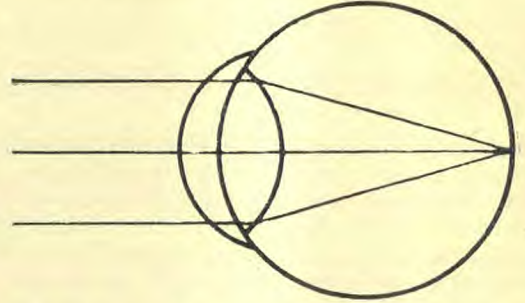


FIG. 1. Normal eye at rest. Parallel rays fall on retina in focus.

Eye-strain from refractive errors sooner or later leads to diseases of the eyes, some of which may become incurable. Amongst such diseases are various inflammations, including styes and ulcers of the lid-margins, causing progressive destruction of hair-follicles with consequent loss of eye-lashes; conjunctivitis, which in time may lead to granulations of the lids, a persistent and troublesome affection; ulcers of the surface of the eye-ball—corneal ulcers—with accompanying iritis and disease of other deep structures of the eye-ball. Catarrhal and other dis-

charges accompany these inflammatory conditions.

Common enough are bad headaches due to nerve-exhaustion through eye-strain. Such headaches are usually frontal, but may extend through to the back of the head, or may be felt only on one side—*hemicrania*. Neuralgia is another sign of eye-strain, as are also various other nervous symptoms, including nausea, faintness, palpitation, and irritability of temper.

The common, refractive errors which cause eye-strain or dimness of vision, or both, are in the order of their frequency:

1. Compound hyperopic astigmatism.
2. Simple hyperopia or hypermetropia.
3. Compound myopic astigmatism.
4. Mixed astigmatism.
5. Simple hyperopic astigmatism.
6. Myopia.
7. Simple myopic astigmatism.

In the normal eye at rest parallel rays fall upon the retina in focus, thus producing sharp lines of objects looked at. Fig. 1.

In hypermetropia, or far-sight, the rays reach the retina before they have been brought to a sharp focus, and indistinct images result. Fig. 2. The nearer the object the more blurred will be the resulting image, and the greater the strain in efforts to see clearly. Headache, usually

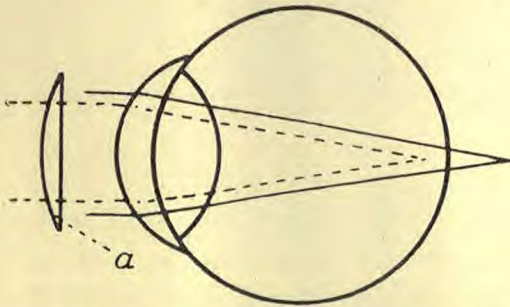


FIG. 2 The hypermetropic eye. Broken line shows effect of convex lens *a* in focussing rays on retina, which, without its aid, are not focussed.

frontal, is a symptom of lesser degrees of hypermetropia. Strangely enough high degrees of hypermetropia frequently cause little or no headache, indistinct vision

only being complained of, the sufferer often considering himself very *near-sighted*. By means of suitable lenses hypermetropia may be corrected, and symptoms arising from it permanently banished. (See Fig. 2, broken line.)

Myopia, or short-sightedness, arises from too early focussing of light-rays, a clear image of the object looked at falling in front of the retina and a blurred image on the retina itself. (Fig. 3.) One not

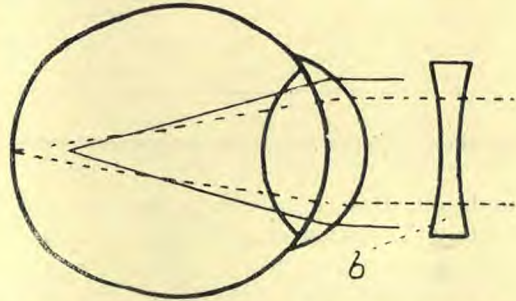


FIG. 3. Myopia, uncorrected (solid line); and corrected with concave lens *b* (broken line).

infrequently meets a person who has borne uncorrected myopia of a high degree during the greater portion of his life. This may be because myopia sometimes causes no symptoms other than poor vision. The correction lies in the constant wearing of suitably selected concave lenses. (Fig. 3, dotted line.)

Astigmatism is of various kinds. It consists of inequalities of refraction, causing some rays to focus before others. (Fig. 4.)

In simple astigmatism part of the rays fall on the retina in focus. The focussing point of other rays is in front of (simple myopic astigmatism) or behind the retina (simple hypermetropic astigmatism). In compound myopic astigmatism all the rays are focussed in front of the retina, and in compound hypermetropic astigmatism all focus behind it. Mixed astigmatism causes some rays to focus in front and some behind the retina.

The exact correction of astigmatism is difficult but important. Imperfectly corrected the result would be worse than if

glasses were not worn. The physician's skill may be taxed to the utmost to prescribe and obtain the right lenses in difficult cases of astigmatism, which for this

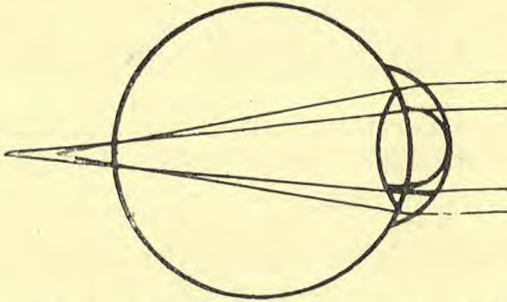


FIG 4. One form of compound astigmatism. Two lenses or a compound lens required to correct.

condition must be specially ground and suitably combined to meet the needs not only of each patient, but of each eye. Results, however, justify the effort, and when the lenses have been precisely fitted, both patient and physician are well pleased.

## The Conservation of Public Health

By A. C. Abbott, M.D., Sc.D., Dr.P.H.

AMONG the movements for the conservation of natural resources none is of more importance, and in none is activity more manifest, than that having to do with the public health. The health of the people as a national asset has ever been recognised, and in all available accounts of early civilisations evidence is encountered of efforts toward its conservation in one way or another. Among the laws of Moses for the guidance of his people is a sanitary code that in most respects could well be followed to-day.

In so far as modern conditions are concerned, the real movement for reform and conservation began in England at about the middle of the last century, at a period commonly denominated "the era of sanitary reform."

To realise that such reform was needed one has but to consult the writings of the times—particularly those bearing upon

the manifold social, economic, and political conditions then in existence. Abuses of all kinds were everywhere in evidence. Extraordinary malpractices in schools, tenements, prisons, and asylums were exposed by contemporary novelists, especially by Dickens and by Reade. The Poor Commission had revealed conditions among the lower classes that they denounced as "disgraceful to a Christian land."

It was not until between 1836 and '40 that any exact idea of the enormous waste from preventable deaths could be formed. Prior to that time the only available records were those usually kept by the churches. In 1833 systematic, vital statistical records were begun, and they were not long in exposing so alarming a death-rate that Parliament was forced to act in an effort to correct the underlying evils.

As a matter of self-protection, many of the better classes began to protest loudly against the squalor, filth, overcrowding and disease in the quarters occupied by the poor; while a few were equally insistent that Parliament should not legislate for the sanitary control of sewerage, cesspools, graveyards, bad water, general filth, and overcrowding, as through the operations of these factors those less fit to survive would be eliminated.

The public highways were used as late as 1864 not only for the deposition of garbage, sewage, and all manner of waste, but were likewise regarded as the appropriate places for all purposes of personal easement.

In the ninth report it is stated that "until comparatively lately (1854) houses under ten-pound rental were not provided with privies or cesspools, the inhabitants using the open streets instead."

In 1844 about 20,000 of the population of Liverpool lived in cellars, and were "absolutely without any places of deposit for refuse matter."

Among the mass of people, pestilences were still fatalistically regarded as visitations of the Almighty, to resist which would be of no avail. Under such circumstances is it astounding that little or

nothing was or could be accomplished in the way of checking epidemics?

Nothing was known of disinfection or disinfectants. Where efforts were made to destroy contagion, it was usually through the burning of a little sulphur as a fumigant or through the pollution of the air by evil-smelling aromatics supposed to be destructive to the moribund agents having to do with the infection. It is needless to say that not any of these practices were effective, and there were no trustworthy scientific means of deciding this point.

There was no exact knowledge whatever of the causative factors of infective disease until about 1880, and prior to that time opinions expressed upon this fundamentally important subject were scarcely more than guess work. For instance, the then ubiquitous malarial fever was considered due to a miasm—an atmospheric something arising from marshy land.

Typhoid fever, up to a short time before the period under consideration, was hopelessly confused with typhus fever, and it was not until the conclusive studies of Dr. Gerhard, of Philadelphia, had demonstrated (about 1836) the two diseases to be distinct that we began to get some real information concerning both of them. But the cause of typhus fever is still unknown, and that of typhoid fever was not discovered until between 1880-1884. Prior to that time one or both were thought to result from seasonal influences, overcrowding, the decomposition of vegetable matter, and sewer gas. And it is probable that the single expression "the fever" so often encountered in the writings of that time referred to one of these maladies or, possibly, to malarial fever.

Tuberculosis—consumption or pulmonary phthisis, as it was more generally called—was regarded as a family malady surely transmitted by heredity.

Pneumonia was the result of catching cold, and because of occasional house outbreaks and prison outbreaks, was thought by a few to be contagious.

Diphtheria was known to be highly

contagious, but through what agencies it was not known.

Tetanus, or lockjaw, was generally attributed to seasonal, climatic, and geologic influences.

Yellow fever, until a few years ago, was believed by many, though not by all, to be highly contagious and, like malarial fever, to be miasmatic in origin.

Diphtheria had been known as a definite disease entity for about a century before its existing cause was discovered. This discovery was quickly followed by the discovery of its specific curative agent. When the fact became known throughout the lay-world that a harmless agent, acting almost like magic in curing this dread disease, had been discovered, is it at all surprising that the world at large was interested? At that psychological moment certain wise men proposed an expenditure of public funds for the establishment of laboratories designed for the prompt diagnosis of diphtheria and for the manufacture of its specific curative agent. Public opinion was so strongly in favour that almost at once fully equipped laboratories, presided over by trained experts, were placed at the disposal of the majority of our Health Boards in large cities.

In the early nineties it was realised that, as the common contagious diseases are peculiar to early life, the time and place to detect the danger arising from them in its incipiency is when the children of our larger communities are gathered together for study. This led to the development of medical school inspection, at first tentative, voluntary, experimental, and in the main directed only to the transmissible diseases. Immediately, however, many children were discovered with defective vision, hearing, mentality, and structure. These conditions were made known to a sympathetic audience now accustomed, through information presented to them by newspapers and magazines, to being informed. The result is that, through public approval, almost insistence, the child in school that is in any way defective may receive such relief as

its condition demands. Of course, the cry of "paternalism" was heard from time to time, but this is easily met. If it be logical for public opinion to insist that every child be compelled to take an education, it is equally logical for the public, at the public expense, to place that child in a position to receive the education, if the necessary aid cannot be secured through other channels.

Picture to yourselves, in addition to the foregoing citations of general unsanitary conditions, this state of affairs: Ignorance of the causes of communicable diseases and the way in which they are spread, and no means of securing exact information; utterly inadequate records of diseases and deaths; insufficient information upon the parts played by water, air, food, etc., in the causation of sickness; total inertia upon the question of accidents peculiar to occupation; equal indifference to the appalling mortality among infants; a widespread contentment with the opinion that certain diseases are peculiar to families, and must be borne as an inevitable heritage; such reticence in the discussion of venereal diseases as to make progress toward their diminution impossible; no public opinion based upon widely distributed information on any of the phases of public health work, and, above all, that the only qualifications requisite for those responsible for the public health were some knowledge of medicine and much political influence.

The ancient, well-known, and puzzling fact that many of both animals and human beings after recovery from infective diseases are immune from subsequent attacks, offered a tempting problem for the application of our new knowledge and methods of inquiry. It engaged the attention of the ablest investigators, and the results of their labours have fully justified the effort. We are to-day in possession of such information upon the mechanism of infection, immunity, and epidemiology as will, in the not far distant future, make it a comparatively simple matter to eliminate epidemic and prevent the spread of epidemic diseases. That

this is no idle dream we have but to review some of that which has already been accomplished, notably, the marvelous results of the correct use of diphtheria antitoxin in both the prevention and cure of diphtheria; the practical elimination of typhoid fever from among all who submit to protective inoculation against it; the striking lessening of cholera in its endemic home through the analogous prophylactic procedure; the saving of life through the treatment of cerebro-spinal meningitis with its specific antiserum, and the prevention of fatalities, even the development of the disease, among those bitten by rabid animals through the use of a specific agent. The principles that are involved in the success of these methods are probably susceptible of wider application, and with the growth of public confidence in the sincerity of the efforts to lessen suffering and prevent death, I have no doubt that this field of activity will be greatly extended.

The campaign for the hygiene of infancy and childhood is essentially one of education. An ignorant mother, be her circumstances what they may, is as incapable of properly caring for an infant as is an incompetent mechanic to run a delicately constructed piece of machinery. If we add to ignorance, destitution and all that it entails, we begin to realise the principal factors in the appalling death-rate common to the age of infancy. The lessening of this waste of life is a new function of our conservation activities. It should be an attractive field to those who will permit themselves to become actively interested, for results are certain.

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THE effects of drink on posterity are these: First generation, moral depravity, alcoholic excess. Second generation: drink mania, attacks of insanity, general insanity, paralysis. Third generation: hypochondria, melancholia, apathy, and tendency to murder. Fourth generation: imbecility, idiocy, and extinction of the race.—*Kraft Ebbing.*



## Colic

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

AN acute, spasmodic, sharp, griping pain in the region of the stomach or bowels is usually described as colic. The term itself is derived from the Greek *kolon*, colon, or large bowel, and would indicate that, originally at least, the disorder was connected with the bowels or stomach. We may also have colic of the liver or kidneys, and certain forms of poisoning, such as lead colic, are described. Colic is one of the most common of summer complaints, and babies and children are perhaps even more susceptible than adults. Indeed, the commonest of all complaints of nursing infants is colic, which accounts for most of the suffering of the little ones in their early months.

### Causes

In this brief article we shall deal solely with that form of gastric and intestinal colic which is associated with indiscretions of diet such as over-eating, bad combination of foods, indigestible food, unripe, stale, or decayed fruit, and decayed fish, fowl, or flesh, preservatives in milk, cream, butter, and in many other foods, and especially tinned and potted meats and fish.

### Symptoms

The cardinal symptom of colic is, of course, a sharp, griping pain which is usually located in the vicinity of the navel. The attack is usually sudden, and the pain is so intense that the patient feels like doubling himself up. If he is lying down the knees are drawn up, for pressure upon the abdomen seems to give relief. The pain, which is often excruciating while it lasts, is believed to be due to spasmodic contraction of the muscular walls of the stomach or bowels. With the pain there is often the feeling of faintness, and more or less prostration. The skin feels cold, and a cold sweat is often present, but as a rule there is no fever. Flatulence and wind are also common symptoms of colic, and are particularly noticeable in little children.

One would naturally expect that, after taking something which is disagreeing

with the stomach, there should be an effort on the part of nature to eject it, and this is what occurs. If the patient is able to vomit freely there is almost always immediate relief, and therefore vomiting should be encouraged in every possible way. As regards the bowels they may be either constipated or loose. Diarrhœa is perhaps more common than constipation, and indicates again a strenuous effort on the part of nature to get rid of the offending matter whatever it may be.

### The Treatment

The indications for treating a case of colic are obvious, for all one has to do is to assist nature. If there is not prompt vomiting it is always a good practice to give emetics, such as lukewarm water to which a pinch of salt or mustard may be added to make it more efficacious. A pint or more of such lukewarm water may be given, and if that is not successful it is an easy matter to tickle the throat with the finger or a feather and so get the stomach emptied. In some few cases it may be necessary to use the stomach-tube in order to get the contents away, and then the assistance of a doctor or trained nurse will be required.

As soon as the stomach has been emptied attention should be given to the bowels in order to cleanse them. Large, hot, plain, saline or soap enemata are in order. If such enemata are not speedily successful in clearing out the irritating material which has accumulated in the bowels, it may be necessary to give a dose of castor oil, liquorice powder, or Epsom salts.

The patient should be put to bed, and hot-water bottles or hot fomentations applied to the seat of the pain. When the measures which we have already recommended have been freely used, heat rarely fails to give complete relief, and in the ordinary case the patient is soon convalescent. A tablespoonful of finely-powdered vegetable charcoal may be given in a glass of hot water. Essence of peppermint is also recommended, and may be given in quarter or half-drachm doses in half a glass of hot water.

### The Diet

Anyone who has suffered from an attack of colic should be very abstemious as regards diet for a few days. After such an attack both stomach and bowels are in a sensitive, irritable state, and it is a wise practice to give them an opportunity to recover their normal condition before taking much food. Therefore it is wise to skip entirely two or three meals, sipping hot water in their place. Then one can begin with mild fruit juices, such as fresh apple-juice, grape-juice, orange-juice, or the juices of other fresh, glass, or stewed fruit. If fruit juices are not available a glass of boiled milk and water in equal proportion may be taken every two or three hours; and later on the white of an egg which has been pressed through a fine sieve and mixed with an equal quantity of water. It is a good thing to adopt a fruit diet for a few days, taking baked or stewed apples, stewed prunes, stewed sultanas, and also fresh fruit, and especially banana purée with or without the addition of cream, oranges, grapes, etc., together with freshly-toasted zwieback, or some plain wholemeal or barley biscuits, taking care to masticate the food well, and to avoid too great a variety. A mealy baked potato is both a wholesome and easily-digested article of diet, but other vegetables, and especially the coarser ones, should be avoided for a few days until the digestive organs have completely righted themselves.

### Prevention

But prevention is naturally the most successful treatment, and in civilised lands at least an attack of gastric or intestinal colic should be regarded as a disgrace, and the result of sinning against the laws of health. If every one were as careful about his diet and what he puts into his stomach as he is with regard to financial transactions, there would be little danger of an attack of colic. Eating for the purpose of sustaining life and maintaining health and strength is the underlying principle. When such thoughts are uppermost in the mind in

gathering around the table to partake of breakfast or dinner, rational feeding is more likely to prevail, and when that is the case there will be little chance of colic or any other digestive disturbance.

First of all there is simplicity in the selection of the food. A simple meal of wholesome and carefully selected food, which has been plainly but thoroughly cooked, will rarely give trouble to anyone who has a fair digestion. A dish of well-cooked porridge (boiled three hours) and stewed fruit at breakfast, with a piece or two of buttered zwieback, a soft-boiled egg, and a couple of baked apples, make an ample breakfast for a hard worker. Really the egg is not necessary, but we include it for those who want something in the place of bacon or ham.

It is interesting to note that colic rarely follows breakfast, but more often comes after the dinner or the largest meal of the day. There is no doubt but that a large number of people take altogether too great a variety of food at the principal meal of the day. A plain vegetable soup with some hard bread in order to ensure good mastication, a mealy baked or steamed potato and nut roast is all that is essential. For those who wish it, fresh salad or a milk pudding may be added, but these must not be looked upon as necessities. It is wise to avoid drinking with the dinner meal as well as at breakfast, for the taking of a quantity of fluid in connection with any meal prevents chewing and retards digestion.

The third meal may well consist of stale brown or wholemeal bread and butter, and a dish of stewed fruit or some fresh fruit if preferred. It is important to bear in mind that well-made wholemeal bread is of itself a perfect food, and that there will be little or no difficulty in maintaining good health for weeks at a time on such bread alone. But this complete abstinence is not necessary, and scarcely desirable. A few nuts may be added to the breakfast or dinner providing they are properly masticated, and then they make a very nutritious and wholesome food.



**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.

#### 242. Brain Torpor; Boils

W.C. states that some time ago she wrote in reference to her little girl who suffers from brain torpor, and has had no reply. She would also like to know what to do for her husband who suffers from boils. They break out about every six months, one or two at a time on various parts of the body, and discharge a blood-tinged pus. His feet smell badly in hot weather, otherwise he is quite healthy.

*Ans.*—We do not remember receiving any communication from W.C. All questions that can be answered through these columns are answered. Some cases are so complicated that apart from a physical examination we could not give a conscientious and satisfactory reply. Brain torpor in a child depends on quite a variety of causes, such as auto-intoxication from improper food. In this case the tongue would be more or less coated, especially in the back part. It may be due to constipation, but this would have the same cause. There are other causes, such as kidney disease and tapeworm. We require full particulars so as to have some idea of causation.

Boils are due to an unhealthy action of the skin due to overwork (*i.e.*, excessive amount of impurities being brought to the skin) and want of care of the skin. In order to avoid excessive amounts of impurities being brought to the skin for

excretion, the diet must be attended to. If animal food be taken, restrict its use to once a day. It should never be fried or served reeking with hot fat. Avoid the use of much sugar or foods containing sugar. Take fresh fruit freely with breakfast and the evening meal, and fresh vegetables at dinner. Keep the skin active with a cold, daily sponge, and a hot bath twice weekly. While the boils exist, pilules of sulphide of calcium—one grain in each—may be taken three times a day. Sulphur is a normal constituent of the body, and helps the action of the skin.

#### 243. Catarrh and Pharyngitis

W.C. also asks for a useful remedy for catarrh and pharyngitis.

*Ans.*—It is not sufficiently recognised how much these affections depend on the state of the digestion. A coated tongue is a sign that digestion is not carried on properly, and so are catarrh and pharyngitis. Observe same rules for diet as given above; avoid use of much butter; take plenty of fresh water between meals. Bathe neck freely with cold water twice daily. Gargle the throat with salt and water (a teaspoonful to half a pint of water twice daily), and douche the nose once daily with the same. Sleep with the window open to its fullest extent, except in rough weather; avoid sitting too much around the fire and in hot rooms. Paint

the throat twice weekly with a solution of protargol (one dram to one ounce water).

#### 244. Auto-Intoxication and Anaemia

G.F.H. (New Zealand) complains she is "troubled with her head, confused and dizzy almost always, and occasionally headache on top of the head, which seems to upset the stomach. Her eyes seem to be affected also; movements occur before the eyes which cause her to close them. She has no pain in any part of her body except tenderness over the stomach accompanied by throbbing. This throbbing she also feels in her ears with ringing noises, and any weight or restriction about the neck quickly affects her head. As a girl she suffered with anæmia. . . . Her bowels are regular, but she suffers with cold feet. For the last two months she has had cold mucus in the bronchial tubes, and for a week dull pain on right side under the ribs. She finds it hard to be cheerful, patient, and calm with her children and others."

*Ans.*—As far as we can judge from the detailed symptoms given, we would judge the trouble to be due to lack of general strength (probably anæmia), and consequently to poor digestive powers. Our correspondent would get great advantage at one of our sanitariums, where all work and worry would be taken from her, and her system would get a chance to tone up. Our correspondent states that foods containing milk and sugar she scrupulously avoids, also anything acid, and coarse vegetables.

Milk should not be avoided unless it disagrees; it is a really good food. Frequently the boiling of milk makes it indigestible and constipating. If you are sure of a healthy cow, milk is more nourishing without any cooking, otherwise it should be brought to a temperature of 170° F. for twenty minutes, and cooled rapidly (unless taken at that temperature). Sugar and coarse vegetables are not good. Vinegar and such acids are injurious, but the acid in pineapples, oranges, and well-

matured apples is helpful to the digestion and the general health in almost all cases. Rest in the horizontal position should be taken for half an hour before and after meals. Take with each meal one raw egg—cooked eggs would probably increase the head troubles. If three eggs cannot be taken in a day, reduce to two. Protose or nut meat should be taken at one of the meals each day. A teaspoonful of lemon juice with or without water after meals would help; perhaps a couple of teaspoonfuls of pineapple juice would suit better in this case. Dates, well-cooked rice, granose biscuits, granola, malted nuts, unfermented wine are all good, suitable foods in this case. Sponge the body daily with cold or, if that cannot be borne, with tepid water, and use freely rough towel for drying. G.F.H. needs a personal, medical examination.

#### 245. Injured Back

"Gordon" complains: "About five years ago I strained my back lifting a heavy log. On two occasions since I have hurt it again. The first and second times it got better after a few rubbings with turpentine. The last time, which happened about fifteen months ago, will not respond to any treatment I give it. The trouble is on the left side of my back, . . . and seems to extend down the front of the hip bone to the groin, and sometimes the left testicle is affected a little. . . . If I do any heavy work I get very bad, and every time I stoop or move the pain is very severe."

*Ans.*—Our correspondent has received a severe muscular strain, probably where the muscles are attached to the spine. The primary injury was too lightly treated. All injuries to the back require immediate attention, even though they seem trivial. The idea of working the trouble off is frequently disastrous. A week's rest at the time would save a couple of months' rest further on. Our correspondent requires a couple of months' complete rest with fomentations to the back night and morning. Massage daily would also be helpful.

There is no drug or application apart from the above treatment that can do any permanent good.

#### 246. Diseased Tonsils

Napier correspondent complains: "About four years ago I contracted quinsy. . . . The doctor lanced the tonsil, but it gathered again, and after bursting, in due course it became better to some extent. Since that time on, however, I have had 'pitted' tonsils, white spots appearing on both, and they are so bad at times that I can put my finger in my mouth and press small lumps of pus out of them."

*Ans.*—Pure quinsy (tonsillitis) never suppurates; probably the original trouble was an abscess (septic) of soft palate. The septic condition remains in the tonsils. In addition to the general measures spoken of by our correspondent, "cold bath every morning, not crouching over fires, abstinence from tea, coffee, and cocoa," we would recommend the free use of acid fruits, especially oranges and pineapple, allowing the juice to remain as long as possible about the throat. Gargle the throat twice daily with lemon juice and water (two teaspoonfuls to one-quarter of a pint of water). Every night paint tonsils alternately with tincture of iodine or a solution of protargol (one dram to one ounce of water).

#### 247. Feeding of Infants

G.W., Bundaberg, writes: "My baby is nearly eleven months old, and I am weaning him of the breast milk. Do you consider malted nuts with granose biscuits sufficiently nutritious without cow's or goat's milk occasionally? I can use goat's milk, but not regularly. My baby has no teeth yet, though very healthy and bonny. Is there any food you can recommend to be supplemented for his teeth? I often use cooked, dried fruits (prunes, etc.), and add this to the granose and malted nuts."

*Ans.*—We think our correspondent is doing excellently. There are no foods better than milk and granose biscuits for children. Go on as you are doing, but get fresh milk as often as you can. When you cannot get the fresh milk use Horlick's Malted Milk. The granose biscuits are especially helpful for the formation of the teeth. A little sweet orange juice two or three times a day would be an advantage.

#### 248. Womb Trouble

"Anxious" complains: "I am troubled with a bearing down, dull aching from the lower part of the right side of abdomen. It passes from the side over the private parts and around the back passage with a burning feeling at times. Very painful to use the bowels. My only relief is to lie down. Can scarcely walk at times. It is quite nine years since I first felt it. Am troubled with wind a lot."

*Ans.*—Our patient is suffering from some trouble of the womb or its appendages, and requires a medical examination. In the meantime apply twice daily fomentations to the lower part of the abdomen, hot vaginal douche (one quart) once daily, and if the bowels are not regular, an enema of hot water with a little brown soap twice weekly. Rest in bed for a fortnight is necessary. In order to avoid the "wind," do not drink with meals, especially tea, coffee, and cocoa. Let the meals be simple, avoid all fried dishes, and all foods cooked with oil, butter, grease of any kind, sugar, and baking soda or powders. Masticate all foods thoroughly. Take with every meal some dried cereal food, such as rusks, granose or wheatmeal biscuits. Avoid coarser vegetables, such as cabbage, carrots, parsnips, and turnips. Take meals at regular intervals, and absolutely no food between meals.

#### 249. Twitching of Body at Night

Miss E.C. writes: "I sleep well, have a good appetite, and feel well, but at night my body is all of a twitch, and I am very

nervous. I have had this complaint some months back, and have had doctor's attendance, but never seemed to get properly well. Would you tell me the cause, and give me a remedy?"

*Ans.*—We could not give the cause of the above apart from an examination. No history of the case is given. Very probably the twitching would be relieved by one of the following treatments at bed time: (1) Hot bath followed by cold sponge; (2) hot sponge over the whole of the body; (3) light general massage. We would recommend every morning a cold sponge, and the use of a good rough towel.

#### 250. Blackheads

F.W.C. complains of above, especially about the face.

*Ans.*—They are due to the development of a parasite (*Acarus folliculorum* or the *Demodex folliculorum*) in the plugged sebaceous ducts. Keep the bowels regular with plenty of cold water between meals and at bedtime. Use fruit freely with two of the three meals. Sponge body daily with cold water, and dry thoroughly with a good rough towel. At bedtime, for fifteen or twenty minutes, apply alternately very hot and cold water to the parts. Remove the blackheads with an extractor such as a watch key, or by squeezing with fingers, and apply a sulphur ointment made up of thirty grains sulphur to an ounce of vaseline.

#### 251. Sore Throat, etc.

N.M. complains of sore throat, which she has had for eleven months, always coughing. . . . Tight, sore feeling in the right side of chest. . . . Tickling cough which causes pain around the heart. She has attributed symptoms to change of life. Has no headaches or constipation.

*Ans.*—We do not think change of life has anything to do with the above symptoms. Follow advice given under "Diseased Tonsils" and "Catarrh and Pharyngitis."

#### 252. Nasal Irritation

Zela complains: "Patient makes constant use of handkerchief, and complains frequently of irritation in nasal passages. Sometimes this irritation partakes of the nature of itchiness, and at such times the handkerchief removes mucus that is perfectly black. The sense of smell is weak."

*Ans.*—The nasal passages should be examined by a medical man. There is probably a polypoid growth or ulcer.

#### 253. Catarrh of Bowel

"Nelson," N.Z., complains: "My son has been troubled for some years with catarrh of the bowels about six inches above the seat. . . . The discharges are mucus coloured with blood about a tablespoonful once a day. He is about twenty-seven years of age, and is otherwise healthy. . . . He uses an enema with some fluid from his doctor."

*Ans.*—Great care is needed in diet in these cases. All foods should be thoroughly masticated. Mixed dishes should be avoided; that is, foods cooked with many ingredients; as, for instance, flour, baking soda, sugar, butter, and eggs. Dry cereal food should be taken at every meal, and fruit at the close of the morning and evening meal. Avoid all flesh foods, also tea, coffee, and cocoa. Uncooked foods should be largely used. Keep the bowels regular by the use of plenty of fresh water between meals, and on rising and retiring. If the bowels are not well open, use a large enema (one quart) water twice weekly. Inject into bowel at night time on retiring fifteen grains tannic acid suspended in four ounces of starch mucilage. Keep the parts well cleansed twice daily with cold water, as discharges are likely to keep up an irritation.

#### 254. Spots before the Eyes

W.A.L. complains of "black and white spots and blotches appearing before the vision, but not obscuring it."

*Ans.*—These are probably caused by some digestic disturbance. There must

be general attendance to diet. Avoid fats, sweets, and highly nitrogenous foods. Take two teaspoonfuls of lemon juice after meals. There is generally a lack of acid in these cases.

#### 255. Mind on Exercises

G.D.J. writes: "Certain physical culture specialists advise concentration of the mind on the muscle or muscles to be developed in a given exercise. They contend that by this means the muscle is developed more quickly and to a far greater extent than by exercising without the mind centred upon the particular part being developed. Can you endorse the theory? I am doubtful and anxious to hear more."

*Ans.*—We believe the specialists are correct. It is certainly very much more fatiguing, but it is necessary if the set of muscles is to be developed, more especially in different parts of the chest where the muscles are often almost altogether neglected. The object, however, should be to develop natural contraction, which will be carried on without the intervention of the mind. The mind starts a certain work going, and then the lower nerve centres take over the work. This is the only way to develop natural deep breathing.

#### 256. Sea-Sickness

A.E.L. asks for a remedy for the above.

*Ans.*—Dr. Whitla gives some good advice in respect to sea-sickness. He writes: "The usual advice of recommending a hearty meal before going on board is a mistake, and fasting is also to be avoided. A light meal at least three hours before experiencing the ship's motion, and a *large warm water enema*, will put the patient in the best condition for struggling against this distressing malady. Of prophylactics there are hosts recommended, but few are of the least use to patients susceptible to sea-sickness. The best remedy, and one which undoubtedly often succeeds in preventing the attack, is

bromide of ammonium, sodium, or potassium. The first mentioned is the most reliable. It should be given in twenty grain doses for a day or two before embarking. As soon as a susceptible patient gets aboard, he should lie down flat upon his back with his head low and his eyes closed. A light abdominal binder, or pressure applied to the epigastrium, is useful in many cases. The general advice given to keep walking about upon deck is very good to travellers not markedly susceptible, and many such undoubtedly escape sickness in this way, but the very sensitive are sure to succumb if they adhere to it."

#### 257. Gluten, Whole Meal, Etc.

The same writer asks: "Is there more of phosphates of potash in a pound of twenty per cent gluten meal than in a pound of whole meal? What is the best treatment to rebuild brain cells? What are the constituents of a certain patent medicine? and can we recommend a place for board and residence in Sydney from five to eight dollars a week, vegetarian meals?"

*Ans.*—Beginning at the last question, we would recommend inquiry be made at Sanitarium Café, Sydney. The patent medicine is utterly worthless, and, consequently, no good can be done by giving its contents. Brain cells do not require any special food. What is good for the body generally is good for the brain. Both gluten and whole meal are good food, the whole meal contains more mineral matter. Most of the mineral matter in wheat is contained in the outer branny layer and the germ. The former contains 6 per cent mineral matter, and the latter 5.7 per cent. The whole grain contains 1.7 per cent mineral matter. This, however, is not to be considered in choosing a food for worn-out brain cells.

#### 258. Patent Medicines

F.H.G. asks our opinion about a certain patent medicine.

*Ans.*—We do not recommend it, or, in fact, any of the medicines advertised. The object of the advertisers is to make money, and not to relieve humanity.

### 259. To Improve the Features

E.D. asks if it is possible to have the features improved.

*Ans.*—Our answer is, the features can be improved only by attention to the general health and developing the mind. Fresh air, plain food, regular hours, plenty of sponging and bathing, and good, mental work will develop the features.

### 260. Chewing Gum

F.G. writes: "I have been wondering lately if chewing a piece of good chewing gum for a while after a meal would be any aid to digestion; would creating a flow of saliva in such a way, and swallowing it for a time after a meal is finished, be any help to the digestion of the meal or not?"

*Ans.*—We certainly would not advise this unnatural process. We do not think the poor, salivary fluid produced in this way would do the slightest good. When you chew, chew something good, something that will nourish you. The time occupied in chewing gum would be infinitely better spent at the time of the actual meal.

### 261. After-Effects of Strong Tea

O.L.D. writes: "I am elderly, and of late have suffered from an impaired digestion, accompanied with loss of appetite, which I attribute to the fact that for many years I have drunk large quantities of strong tea. What is the best course

to pursue to obviate these results? Could a chemist supply a drug or tonic which would likely help my case?"

*Ans.*—We do not think there is any drug that would help in the slightest degree. Elderly people require much less food than younger people, and this should be remembered. It is important to have the teeth in as good a condition as possible. Probably a visit to the dentist would not be out of the way. Probably a drink of hot water and milk with a little salt about forty minutes before meals would be helpful. Perseverance in healthful living will gradually improve the digestion.

### 262. To Increase One's Height

N.R.J. refers to an advertisement in a London paper to the effect that under some particular treatment the height of any person under forty can be increased by about three inches in three months, and writes: "I am desirous of increasing my own height, and have been wondering if this man's treatment is of any use. . . . To my way of thinking there is only one way to increase the height, and that is by physical culture, by which the back, head, and shoulders are brought erect. Is that so?"

*Ans.*—The question propounded nearly two thousand years ago by the highest of authorities, "Which of you by taking thought can add one cubit unto his stature?" unmistakably carried a negative answer. Faulty habits of posture, as our correspondent suggests, can be corrected by physical culture, and there may be a slight apparent increase in height, but no treatment can possibly add to the height of any man. Advertisers will promise anything that will bring in money.







N. J. Cairn, Photo., Melb.

MARYSVILLE FALLS, VICTORIA

# WAR

BY R. HARE

*Written after reading the prize essay, "Lay Down Your Arms."*

I stood upon the battle-field and gazed  
Upon the dead that hapless lay  
In mingled heaps of tangled clay,  
While boom of cannon far away  
Played music to the awful shriek of death,  
Or to the lingering moan of pain,  
And in the lightning of its breath  
Touched many a heart that might have lived  
To raise proud palaces or till the fields of grain.

Yonder, in pools of blood and mire, there lay  
Brave soldier-forms who fighting fell,  
Torn by the deadly shot and shell,  
Keen as the bitter blast of hell;  
And only to their murmuring cry there came  
The vultures with their talons bare,  
Heedless of rank, or form, or name,  
On helpless living and the dead to share,  
And glut their lust for flesh on dainty kind—  
Fathers, lovers, brothers—all were there!

The sun grew dark, went down in smoke and blood,  
And the white moon came up to smile  
O'er scenes of death, where, pile on pile,  
The dead and dying lay, the while  
A nation tuned its harpings to the glory-song,  
And dames with rosy cheek and flashing eye,  
Mid rustling silks and boisterous throng,  
Sung of the brave who cannot die,  
While storm-winds bore the mocking words afar,  
And boom of cannon gave the world the lie.

Then on the mists beyond the hill there fell  
A scene, where Love, with weeping eyes,  
Bent o'er a boy whose father lies  
On gory field—the vulture's prize;  
But still the rage of war rolled fiercely by,  
And Death rode on with flag of flame,  
While drums, in wild disguise, beat high,  
And home is wrecked, love lost in grief  
For dark ambition's fatal dream of bliss.  
And this is glory!—glory? Oh the shame!

Great God of all, can Heaven discern the lie  
Which vain ambition pictures still—  
"That man is great who learns to kill  
Or lives to work his neighbour ill"?  
For gold and pride, for gain and selfish hoard,  
The field lies barren while the plain  
Lies crimsoned by the deadly sword;  
While Death, in spectre form, rides on  
O'er shattered hopes and quivering forms that die,  
And human hearts are filled with hate and pain.



## The Blessings of Science on the Battlefield

THE French expert, Dr. Helme, in an article in *Le Temps*, seeks to show that, if the science of killing and wounding has made great advances in the last two or three generations, the healing art has not lagged behind.

Military surgery, indeed, appears from this statement to have undergone what may fairly be called a revolution since, say, the war of 1870. And the sum total of results in the contest between the agencies of death and the agencies of life is, in regard to recoveries from wounds not instantaneously fatal, that the average number of deaths in 1870 has been reduced by one-half. Dr. Helme begins by noting three great changes in the principles upon which those who minister to the wounded in battle must hereafter work. First, there can be no more rescuing of wounded men while actually within the zone of battle. To allow surgeons and stretcher-bearers to move across the line of fire would be to surrender them to certain death, besides assisting the enemy by presenting him with an unerring guide for his artillery fire. Secondly, the fate of the wounded soldier, judging by the most recent wars, may be regarded as settled almost as soon as he is wounded; if the wound be properly dressed at the outset, and thus protected against secondary infection, there will be no cause for anxiety; if not, a fatal issue may be expected. Lastly, the days of rapid rough-and-ready military surgery—of bullets extracted and limbs amputated on the battlefield—are

gone by. Modern surgery, with its audacity of scope and ultra-refinement of methods, demands too great attention to details, too perfect a quiet in its environment, and too much time for operating, to permit of its being practised amid the din of battle.

Dr. Helme is of the opinion, at the same time, that our generation, with its over-stimulated and over-cultivated nervous system, is quite incapable of enduring the pain and nervous shocks through which the *grogards* of Napoleon's armies managed to live.

The actual course of events with the wounded soldier is thus dramatically detailed. With eyes fixed straight in front of him, and filled with the warlike intoxication which eliminates the instinct of self-preservation, the soldier follows the orders of his leaders until he feels himself hit. Then another instinct than the ardour of battle takes possession of his whole being; he now thinks of nothing but finding his way to the wretched company of the stricken, to share his sufferings with them. In this way there are formed on the field of battle what General Troussaint (the surgeon-in-chief of the French army) calls "nests of wounded," to which correspond "nests of assistance." Here the medical students and young doctors have congregated in the midst of the troops, provided with morphine to lull pain, caffeine to stimulate the heart, and serum to repair the tissues wasted by loss of blood. The three grave dangers

to be met in these early stages of the case are asphyxia, hemorrhage, and infection. Against the last of these three the French soldier is fortified by a little package which he is obliged to carry with him as part of his regular field kit. Within its outer covering of grey linen this package contains another, an impermeable envelope, and inside this again is a provision of aseptic lint covered with fine gauze, besides a large bandage and two safety pins. Outside is a label on which are printed explicit directions for the use of this first-aid (or *pansement individuel*)

(feet) or 2,000 metres (6,562 feet) to the rear of the firing line. Here his wounds will receive their first scientific dressing with antiseptics. At the same time his case is diagnosed, and a ticket is pinned on to his coat—a red ticket, if he is to be removed to the base hospital; a white one, if he is to be left where he is. In the former case, he will be carried off on a scientifically constructed stretcher (*brancard*), the French type of which is the Eybert, a contrivance so constructed as to be available for transporting the wounded man either in a waggon, on the

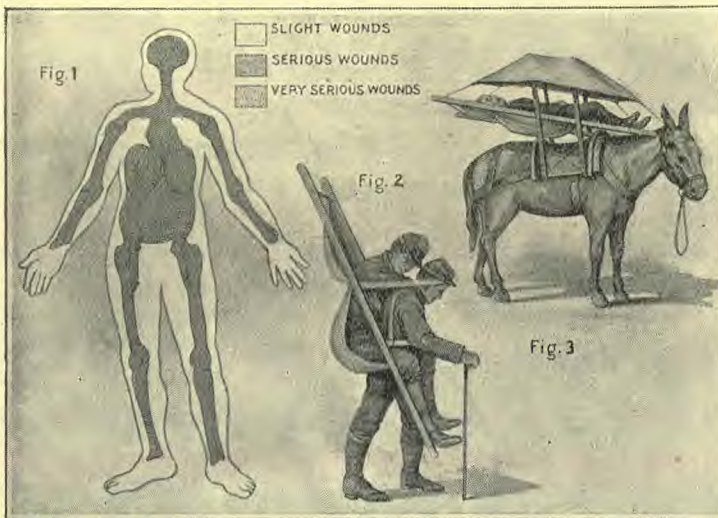


FIG. 1.—The division of wounds according to location shown in the human body. FIG. 2.—Contrivance for transporting wounded man on the back of a hospital orderly. FIG. 3.—Method of carrying the wounded on mule back.

apparatus. If the soldier is wise and provident, he will have thoroughly mastered these printed instructions long before the necessity for applying them arises; if he is only the average human recruit, and has never looked at them until his hour of anguish arrives, he ought even then to be able to understand their large, heavy type and simple precision of language.

The next thing for the victim to do will be to take advantage of the first lull in the fighting to drag himself to the nearest medical post, or "nest of assistance," which ought to be 1,500 metres (4,921

back of a mule, or on the back of a hospital orderly. For the last of these means of transportation, the *brancard* is strapped, nearly upright, to the forehead, shoulders, and hips of the bearer, so that the patient may keep the sitting and slightly prone position desirable in cases of abdominal lesions, and known as "Fowler's position." So much for the routine of gleaning the human harvest while and where the battle still rages. When the turmoil and acute danger have shifted elsewhere, it is possible for the ambu-

lances to make their rounds and pick up the wounded. The modern army ambulance (there are sixteen to every French army corps) is a field hospital on wheels, equipped with facilities for immediate treatment of cases in which delay would entail serious danger. The "field hospital" of thirty years ago is now only a memory. The ambulance, an automobile, takes its load as quickly and with as little jolting as possible to the base hospital, where the veteran surgeons, Red Cross nurses, and all the healing resources of modern science are to be found, amid quiet and orderly con-

ditions almost as favourable to the patient as those of a well-conducted hospital in times of peace.

Dr. Helme makes an important point of the increasing usefulness of women in tending the victims of war. "Yesterday," he says, "a young surgeon, lately returned from the Balkans, Prof. René Le Fort of Lille, told me in a voice broken with emotion of his feelings at seeing these benevolent phalanxes of nurses. The societies of Help for the Wounded, the Austrian Cross of Malta, French, Russian, English, German, and Czech women—in the hospitals at Nish, Belgrade, or Sofia you see only these white angels bearing the red cross of redemption." To return to the battlefield, the work of the surgeons and their orderlies does not end with day. At night they have to scour the country, and gather in wounded men who have been unable to find their way to any aid station. These nocturnal gleaners of stricken humanity are, of course, provided with lanterns, and in this connection Dr. Helme describes the Gossard-Berthier light, which is specially constructed for the service of the wounded in war. It is an acetylene light, provided with a reflector, which brilliantly illuminates the ground within a radius of 8 metres (26½ feet), but is quite imperceptible beyond 400 metres (1,312 feet)—a safe distance, considering that hostile armies nowadays never encamp within anything like so short a range.

In this work the traditional friend of man, the dog tribe, also takes part, represented by that German development the *Sanitätshund* and his French version, the *chien sanitaire*. The method of the German *Sanitätshund* is simply to find a wounded man and then bay over him until human assistance comes. The performance of the *chien sanitaire* is more elaborate and, characteristically, somewhat more spectacular; he obtains possession of the patient's hat, or belt, or anything that can be rummaged out of his pockets, and, carrying this as evidence, first reports to the surgeon, and then leads the way back to the sufferer.

Military surgery has now made an elaborate classification of wounds with respect to their danger and difficulty of treatment. For a general idea, however, the accompanying diagram is sufficient, dividing the wounds according to their location in the human body, into slight, serious, and very serious. This diagram is reproduced from Forgues' "Traité de Pathologie Externe." A statistical calculation made by one of the leading surgical authorities of the French gives the relative frequency of wounds not instantaneously mortal as: slight, 60 per cent; serious, 15 per cent; very serious, 25 per cent. On the whole, the experience of recent wars shows the head and the right arm as the most frequent lodging places of projectiles.

The greatest difficulty of modern military surgery seems to be in abdominal wounds. Their healing depends on the early application of treatment and on the feasibility of keeping the patient quiet for a long period. Wounds of this type wrought great havoc in the battle of Spion Kop, where the wounded had to be conveyed down a rocky cliff before undergoing operation. On the other hand, a large number of Russian soldiers suffering from abdominal wounds at Mukden were successfully treated, with laparotomy, by the skill and admirably organised resources of the Surgeon-Princess Gedroitz.

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### Will Your Blood Fight the Germs

IT is known that the germs of disease are practically everywhere. The blood of the healthy person kills them however. It is interesting to know that physicians can determine the power of any individual's blood to kill germs.

For instance, they take a drop of a patient's blood and expose it to a certain number of tuberculosis germs for twenty or thirty minutes. These germs are examined by a microscope, and if they are all dead the man's blood is normal, and it is said that his opsonic index is 100 per cent. If his drop of blood was able to destroy only half of the germs the op-

sonic index is said to be only 50 per cent, and a man with an opsonic index of only 50 per cent would be apt to have tuberculosis. If he knew the fact he would want to get his opsonic index up. This can be done by exposure to sunshine, the proper use of cold baths, a rational diet and outdoor living. The famous Dr. Wright was once asked what could be given to a man to increase his opsonic index.

"There isn't any drug," he said. "All drugs lower the opsonic index. Tobacco is one of the drugs that lowers the opsonic index."

Some time ago Dr. Wright tested a smoker. He found the man's opsonic index to be zero. Men who smoke, with the idea that tobacco smoke is an anti-septic, a disinfectant, and will prevent them from taking disease, make a very great mistake, for tobacco actually lowers the opsonic index against tuberculosis to zero.

Tobacco lowers the opsonic index greatly within an hour's time. Alcohol does the same thing. Strychnine, opium, and all these drugs have the same effect, so the habitual use of any drug is exceedingly injurious.—*The Healthy Home*.



THESE characters are Chinese, and they mean "Flies Kill People." They are the title of a handbill that is about seven inches wide and thirty inches long, of which thousands of copies have been printed and distributed by the governor of an interior province in China. An American doctor told this governor what some American cities have done to exterminate flies and mosquitoes, and why. The governor thereupon ordered the handbills printed and circulated, and personally paid the bills for them.

If the fly campaigns of clean cities make such an impression on the interior

of China there should be hope that before long backward cities will learn that "flies kill people" unless they are prevented by the people killing the flies.—*World's Work*.

### The Right Vacation

SOME few persons are fortunate enough to be able to obtain and afford to take vacations of two or three months every year. For the vast majority, however, one or at most two weeks is the length of the vacation period. As a matter of fact most vacationists do everything that ought not to be done, and neglect everything that they ought to do in order to make the vacation of value. The writer has very seldom seen one of these short vacations do much good, but he has seen them do harm innumerable times.

Man is a creature of habit. All his functions, organs, and even most of his thoughts are the accumulated effect of constantly and regularly repeated stimuli. Nature works properly only when she works regularly. Now, the fault of the average vacation is that it breaks up this regular routine, and in a great many cases throws the entire system out of gear, so to speak. The shorter the vacation the more likely this is to occur, because of the fact that the vacationist has to crowd more foolishness into a shorter period.

With long vacations, two or more months, the system has a better chance to adapt itself. More than this, having plenty of time the vacationist is likely to be much less strenuous. Even in these vacations, however, the chances for harm are about equal to the chances for good.

### Vacations Do Harm

In the opinion of the writer, then, the present style of vacation, regardless of length, is rather more apt to do harm than good. On the other hand "all work and no play" is certainly harmful. But the way to obtain the play and get any benefit out of it is not to try to crowd all of it into one or two weeks in the year.

The really sensible vacation is the one



N. J. Caire, Photo., Melb.

ANGLING ON THE ERSKINE RIVER, LORNE, VICTORIA

that is taken daily, or at any rate two or three times a week. The practice of giving a half holiday each week during the summer months is of more real benefit than the week or two of vacation that goes with it.

It would be far better, both for the workers and their employers if, instead of giving the week or so vacation they would add to the number of half holidays, either giving two or three a week during the summer months, or one every week the year round. Theoretically a half holiday ought to be preferable to even a whole holiday, since it would break up the regular routine less, yet give more chance for recuperation.

So far as efficiency goes it is a well proved fact that more work can be done where there are short periods of rest than is the case if the worker is not allowed to stop. This is as true of the week period as it is of the day period. Work, a reasonable amount of it, is one of the most necessary things in the world as regards health.

#### Work Is Play When We Like It

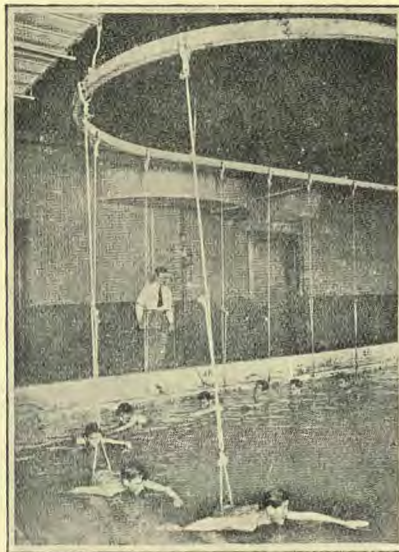
Too much work or too prolonged work is never good. Now the only thing that differentiates work and play is the fact that we call play, recreation, anything that we like to do but are not compelled to do.

A great deal of play is much harder than most work; football and baseball as examples. This is the great trouble with it. The clerk who has worked steadily in an office fifty weeks in the year is not in fit physical condition to rough it in the woods; but all too often he thinks he is and tries it. The results are always harmful and occasionally fatal.

In deciding about a vacation, then, consider your physical condition as well as your financial one. Unless you are a fool you do not plan to take a vacation that will swamp you financially. Why, then, should you plan one that is likely to swamp you physically? Yet thousands do this every year.—*Ernest F. Robinson, M.D., in the Healthy Home.*

#### Teaching Swimming With Trolleys

A NEW system of teaching boys and girls how to swim has been instituted in certain Cincinnati schools equipped with bathing pools. An apparatus is employed consisting of an oval track secured to the ceiling over the pool. A dozen trolleys run on the track, and from each depends a rope with a belt attached. Twelve pupils fasten the belts around their waists and the swimming lesson is on. They go through the motions of "sailor fashion" and the "Australian crawl" as per the direction of the swimming instructor, who keeps watch from around the edge of the



A Water "Merry-go-round"

pool. They cannot sink, so the only thing remaining for them to do is to swim. This "water-merry-go-round" has proven so successful that others like it are to be installed in schools where a bathing pool is a part of the equipment.—*Selected.*

"THE girl who, having had her attention called to the laws of physiology and hygiene while she is still young, has an understanding of the needs and functions of her body before it has attained maturity—which it does when she is about twenty-five years of age—is fortunate.



### The Queen of England on a Ladder

AS I sat on a summer balcony in Venice, writes a contributor to the *Youth's Companion*, I heard from a charming Dutch-woman this pleasant story about Queen Mary of England. The husband of the Dutch lady was the founder of one of the largest lace houses in Venice, and she had always taken an active part in the business.

"Of course," she said, with Dutch commonsense, "no one can say that lace is one of the necessities of life, so they who sell it must seek the places affected by the wealthy. We have a branch establishment at St. Moritz every summer. One year I was there with laces that cost us 200,000 francs, and I had with me a young woman to help me with the sale. The insurance company refused to insure us because they had lost so much through fires in that country. The wooden chalets burn like tinder, and the water supply is always inadequate.

"My chalet was often visited by very great ladies. The sister of the Emperor of Germany bought little, but she loved to look at the beautiful laces. The Princess Lætitia of Savoy was another habitué, but the most friendly were the Duchess of Teck and her tall daughter, the Princess Mary, then the Duchess of York.

"One morning I heard a great commotion in the street, and I stepped out to see what was wrong. A chalet was on fire not far away. A turn of the wind, and we should be caught. More than the flames even, I dreaded the thieves who take advantage of such scenes of confusion. I stepped back into my chalet and locked the door, that we might be undisturbed. I pulled out packing cases and trunks, and I and my assistant were beginning to pack up the laces and embroideries when the Duchesses of Teck and York came by.

"'Oh, let us help you!' they insisted. 'It would be dreadful for those lovely things to be injured or lost.'

"They worked like Turks. The Duchess Mary was so tall that she could reach everything, and as she handed the laces to me I packed them carefully in the cases. The gentleman in waiting went back and forth, and kept us posted as to the progress of the fire. The Duchess Mary even went up on a ladder and fetched down the mirrors herself. I have never had better or more energetic assistance, and it was all done with such simplicity, good sense, and good fellowship. Fortunately, although five chalets were burned, the wind did not bring the fire our way."

### Animals that Never Drink

IT would seem that water is so indispensable to life that no animals could exist without drinking. Nevertheless, Dr. Blanford asserts that the antelopes which live in the sand desert between salt lake Chilka and the sea never drink. This has been doubted by physiologists, who deny that existence is possible in such conditions, but confirmatory evidence is now adduced by Dr. Drake-Brockman. It appears that since 1910 a troupe of gazelles have lived in the small island Saad-ud-Din on the side of Somaliland, where there is no source of water, and where the annual rainfall is less than three inches, so that these gazelles cannot obtain water except after very rare showers. The vegetation is very poor, and they cannot supplement the lack of water during the dry season by consuming roots and bulbous plants rich in liquid.—*Scientific American*.

WITH regard to the harmful influence of the use of tobacco upon our university students, most people will agree with the following observation of Prof. Andrew D. White, of Cornell University: "Let me say that I never knew a young student to smoke cigarettes who did not disappoint expectations. I have watched this for thirty years and cannot recall a single exception to the rule."

### Ancient Footwear Found in London

THE ancient shoes and sandals, pictured in the accompanying engraving, are not replicas, but the actual footwear of men who once trod the streets of London. They were dug up within the city limits, and are on exhibition at the city museum. The two sandals shown date back to the days of the Romans. They were found in the peaty deposit of the Moorgate Street district. They have been set up on plaster feet. On the left are two Saxon shoes. The one at the top resembles the Scottish and Irish brogue used at the present day in the Shetland Isles. It was discovered in London Wall. The shoe directly below it, with the iron stirrup, was found in the Ditch, Newgate. The shoe with long-pointed toe, at the bottom of the engraving, belongs to the early fifteenth century. The iron stirrup was found in Westminster, while the spur was dug up in Thames Street.

It was during the reign of Richard III that this odd shoe, or "poulaine," was in fashion. To keep the long toes of these shoes in shape, they were stuffed with moss.—*Scientific American*.

### Be More Than You Seem to Be

Dr. BOOKER WASHINGTON has been commending the simple life to young Negro students. He said: "In simplicity there is strength. If you want to show to the world that you have education, that you have culture, you must show it in leading a simple life, by being simple in speech, using simple words, short words, simple sentences, short sentences; by being simple in dress, simple in every-

thing, without undue exaggeration. If you are thus simple, you will indicate to the world in a way that no one will dispute that you have genuine education, that you have genuine culture. The way to show that you have education of the best kind, is not by use of titles, not by fingering a few big books with large names, long names; but by knowing a little well, and going about the world, not representing yourself as somebody else, but representing yourself to be that which you really are. All through life remember this: try to be all that you seem to be. Be more than you seem to be, and you will succeed."



Curious Footwear Dug up in London

*The Sphere*

### The Quietest Place in the World

IF you should ask your friends to name the quietest place in the world, you would probably get a great variety of answers. Some would say, the summit of a high mountain; others, a distant place in the middle of the ocean, or an isolated spot in the desert. But on the mountain peaks and in the quiet of the wilderness there are usually birds to break the silence, and the roar of the wind and the dashing of the waves disturb the peace of the ocean.

We need not flee from civilisation to find the quietest place in the world, for it

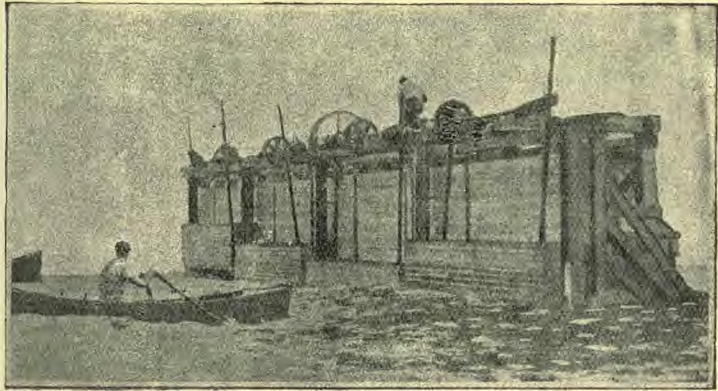
is in the heart of a city—the city of Utrecht in Holland. This quiet place is a room for scientific research, especially built to avoid all vibration. Prof. H. Zwaardemaker, a well-known Dutch physicist and physiologist, had it built. An attempt to construct a noise-proof room had been made once before by Professor Wandt in Leipzig, but that was not entirely successful. The means that Professor Zwaardemaker used are worthy to be recorded.

In the first place, he built three rooms, one inside of another; then, since a vacuum is a poor conductor of sound, he had the air all pumped from between the walls. The interior walls of the rooms were covered with six layers of material; one layer was of stone blocks, treated by a special process. The cavities between the stones were filled with horsehair; next to the stone were placed layers of wood and cork. The other coverings were layers of lead plate, sea grass, and paper. The walls were further lined with tapestry, to absorb the internal sounds. Not the slightest sound can penetrate to the innermost chamber. In that room there rules an absolute quiet, a quiet that can be found in no other place on earth.—*Youth's Companion*.

### Ocean Waves for Inland Resorts

THE odd-looking piece of machinery shown herewith is a wave-making machine. It will make, to your liking, any one of a half dozen or more different kinds of waves: Ocean waves, long rolling billows, short choppy waves, and, among others, the white-cap variety. It is possible to have a real Atlantic City surf just by switching on an electric motor, which sets the four plungers in

motion. These plungers work up and down in the water, and the different ways the plungers are worked make the different kinds of waves. For instance, if long rolling billows are desired, the plungers are worked in unison. If a short choppy sea is wanted, the plungers are worked independently of each other; when white-caps are wanted, two plungers are worked up and two down; this combination causes the waves to break into white-caps. The different combinations of the plungers result in the different kinds of waves. This unique mechanical device will be used at summer resorts in America this season, on lakes that never saw a wavelet larger than a ripple.—*Scientific American*.



Machine for Making Artificial Surf *Scientific American*

### Mutual Strangers

AN amusing story is related in an American newspaper. A lady passenger entered a tram-car the other day, and thought she recognised an acquaintance.

"Is that you?" she inquired briskly. "I hardly knew you."

"Yes, it's me," replied the other, "and that is you, isn't it? How are you?"

"Oh, I am not so bad," was the reply.

After this silence fell, and the music of the car was heard at its best. Then the first speaker recognised, after much staring, that she had made a mistake. Again she bent forward.

"But it's not you at all," she suggested.

"No," replied the other, "it's neither of us."

### Thermae, or Baths

THE greatest demand upon the streams of water poured into Rome by the aqueducts was made by the *thermae*, or baths. Among the ancient Romans, bathing, regarded at first simply as a troublesome necessity, became in time a luxurious art. Under the republic, bathing houses were erected in considerable numbers. But it was during the imperial period that those magnificent structures to which the name of *thermae* properly attaches, were erected. These edifices were among the most elaborate and expensive of the imperial works. They contained chambers for cold, hot, tepid, sudatory, and swimming baths; dressing rooms and gymnasiums; museums and libraries; covered colonnades for lounging and conversation; extensive grounds filled with statues and traversed by pleasant walks; and every other adjunct that could add to the sense of luxury and relaxation. Being intended to exhibit the liberality of their builders, they were thrown open to the public free of charge.—Myers's "General History."

### Floating on the Dead Sea

THE wonderful buoyancy of the Dead Sea, that strange inland sheet of water in Palestine, is proverbial. It is some forty-seven miles long by nine miles wide, and lies no less than 1,200 feet below the surface of the Mediterranean, the lowest-

lying lake on the face of the globe. Its waters are so bitter that fish cannot live in them. We get an idea of its density when it is stated that in a ton of water from the Atlantic there is thirty-one pounds of salt against 187 pounds from a like quantity in the Dead Sea. The result is that it is impossible for a human being to sink in these waters, and the



accompanying photograph depicts a tourist reading his guide book while floating on the surface of the water.—*Scientific American*.

"ONE of the best things for a healthy, robust man or woman is to visit the room of someone who is shut in with a chronic disease like rheumatism, who is helpless or who is dependent on the care of others with little expectancy of early recovery. Such an experience not only arouses sympathy, but enables them to prize the good health that they possess."





## An Ideal Tonic

EULALIA RICHARDS

**A**LMOST everyone has enjoyed the luxury of a cool bath on a summer's day. When the mercury is standing in the neighbourhood of one hundred in the shade, nothing appeals more forcibly to the average man, woman, or child than a dip in the surf, or even a splash in the more prosaic bath tub. But there is something about the mention of a cold bath that sends little shivers creeping up and down the average spine in winter weather. We are forced to conclude that these shivering mortals have never experienced the exhilaration of a cool bath on a wintry morning.

A quick splash in cold water, followed by a vigorous rub down with a coarse towel, is the finest possible winter tonic and the best preventive of cold-catching. Even the child who has become accustomed to his morning splash "isn't happy till he gets it."

The invigoration of a cool bath, properly taken, is enduring, making one feel energetic, clear-headed, and fit for the day's duties. This is because the dash of cold water rouses the nerve centres, while the vigorous friction of the skin stimulates and strengthens the flow of blood throughout the body. All of the vital bodily organs are thus stimulated to more vigorous and healthy activity.

But the cold bath must be properly managed in order to prove thus beneficial. A few suggestions may be helpful to the inexperienced who desire this ideal tonic for themselves and their children.

The mother on waking slips into a warm wrapper and bedroom slippers, and hurries to the bathroom. A quick shower or an all-over dash from the tap or a bucket is sufficient, followed by a vigorous rubbing of the body with a coarse, dry towel, an operation which requires not more than three minutes. She must then dress quickly while still warm and glowing from the bath. The father follows, unless he prefers to lead the bath procession. If the weather is cold and a fire is required, it should be lighted before the children leave their beds. The children's clothing being in readiness in the bedroom or by the fire, they one by one hurry in slippared feet to the bathroom, where the father or mother assists in drying the child quickly and thoroughly, after which the clothing is put on at once. With the parent's help several children may be bathed in a very few moments. Each person should have his own towel or towels, and ample space for drying the same should be provided. There should also be a suitable bath mat to prevent the feet becoming chilled after the bath. A cork mat is fairly suitable. The Turkish-towel bath mats ordinarily used are not very satisfactory when a number of persons are using the bath, as they quickly become wet, and then feel cold to the feet. A folded newspaper serves nicely, and a pile of old papers may be kept in the bathroom for this purpose. They are comfortable, inexpensive, and labour saving.

We may summarise our suggestions as follows:—

1. Take the bath immediately upon leaving bed so as to avoid becoming chilled before the bath.

2. Bathe quickly, whatever the form of bath, and dry vigorously with coarse, dry towels. The skin should be warm and glowing at the close of the bath.

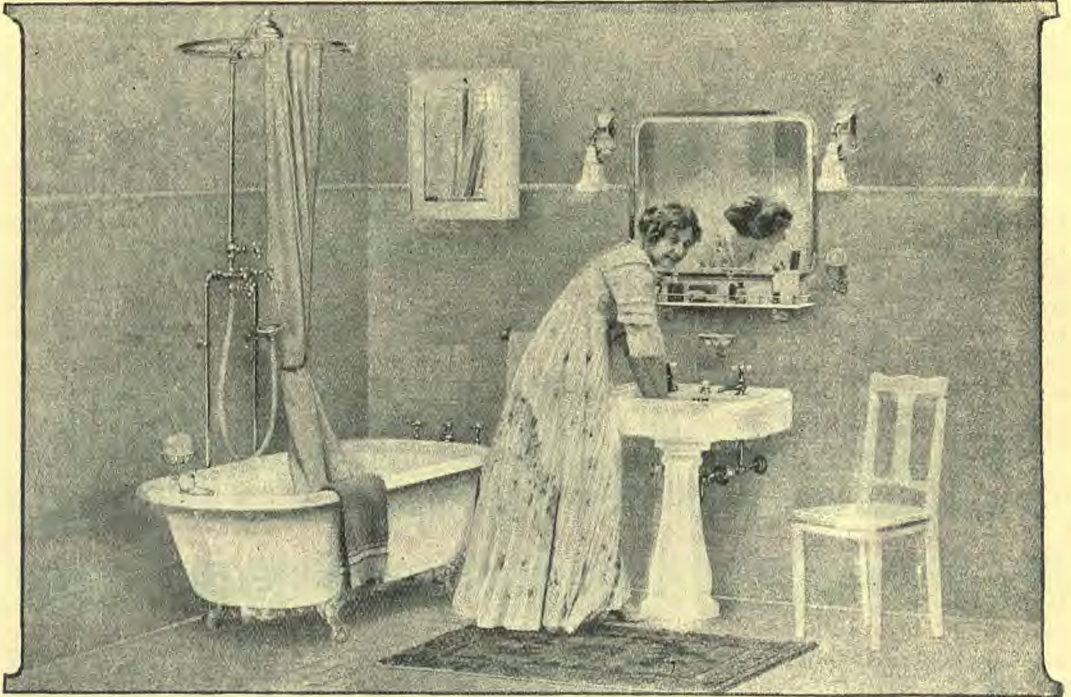
3. Dress at once after bathing.

4. Exercise moderately for a short

baths; in fact the shower or spray is best suited to all but the most robust individuals. Delicate persons should attempt nothing more vigorous than the so-called sponge bath or cold mitten friction bath.

8. Invalids and young children require assistance in bathing. Only a portion of the body should be bathed at once, and the drying must be prompt and vigorous, else chilling may result.

9. Having a cold should be no barrier



The Tonic Room

time after the bath so as to avoid chilling. Housework meets the exercise requirements very well.

5. Should the feet be cold on leaving bed, immerse them for a few moments in hot water before taking the cold bath.

6. Do not take a cold bath when chilly. A little vigorous exercise will usually prepare one to react to the cold application.

7. Aged persons, very young children, or persons suffering from heart or kidney disease, should not take cold immersion

to cold bathing. In fact, a cold is more quickly recovered from if a cold bath be taken daily. Persons who take their morning bath with faithful regularity seldom catch cold except when travelling or under circumstances which prevent the enjoyment of this routine tonic.

10. The daily cold bath is suited to almost every one, but particularly to persons who suffer from faulty circulation of blood, indigestion, inactivity of liver and bowels, headache, and dulness of thought.

And lastly, the cold bath is the best possible cure for the *blues* and for that *tired feeling* from which so many unfortunate people suffer.

### How to Spoil the Baby

A BABY can be so "spoiled" before it is twenty-four hours old that it will take weeks of training to overcome the bad habits already formed.

Upon the care and attention given the baby the first day of its life depend to a great extent the requirements of the next few months. As soon as it is born, it should be wrapped comfortably and laid on a pillow until the nurse has time to dress it. Then the baby should be bathed, dressed, given a teaspoonful of warm water, and put to bed.

The less a baby is handled, the better for its health; the more it is allowed to lie quiet, the better will be the condition of the nervous system. Movement of any kind excites the nervous system. Rocking is as exciting to a new-born baby as is "shooting the chutes" to an older person. Excited nerves crave more excitement, and this means more care for the mother.

#### How Not to Spoil the Baby

Before a baby is many hours old it will cry. The tendency is to pick it up, cuddle it, rock it, and fuss over it generally. This is entirely wrong, if the mother would be saved hours of unnecessary work in the future. If the baby cries, it should be examined to see that there are no pins pricking the tender flesh, no annoying wrinkles in the clothing, nor anything materially wrong, then it should be given a drink of water and turned in a different position.

It may cry for a time at first, but if it finds it will not be taken up it will go to sleep again. One can prove that a baby often cries just because it wants to be held by taking it up once or twice and noting how quickly it becomes quiet. It takes a baby only a few days to learn if it will be held every time it cries; it takes

only a few days to establish a habit of rocking it to sleep.

Many mothers are made slaves to their babies because they think the baby is too young to be disciplined. They become drudges who continually rock back and forth, or who walk the floor day and night. Their health and happiness are lost. They do not derive any comfort, only care, from the presence of the little one. This should not be the condition. A well baby should not usurp the entire time of his mother. He should be able to amuse himself the greater part of the time. He should be trained from the first to go to sleep with no one near, not to require rocking or other excitement.

The baby should not be held except when being fed or bathed. The remainder of the time he should lie quietly in bed and require little attention. The more attention one gives a baby, the more is required. This does not mean that the baby should be neglected in any way, but he should not be pampered and "spoiled."—*Dr. Edith B. Lowrey.*

### The Baby In Hot Weather

MORE babies die in very hot weather than at any other time, and that is perfectly true of babies in the crowded parts of large cities, and of babies who are artificially fed. Among the very poor, an ignorant mother is often a careless one; she leaves milk uncovered, and uses it after it has become stale, and does not wash the nursing-bottles thoroughly.

But many infants die whose mothers are intelligent enough and conscientious enough to see that the child's food is clean and wholesome. They die in spite of frequent changes of clothing and of proper feeding, and they die of nothing except the heat. In a long and intensely hot spell, the strongest little baby will show unmistakable signs of exhaustion, and many of the weaker ones will succumb.

We have all experienced that feeling of complete languor that overcomes us at

intervals on a very hot and sultry day. We stop working if we possibly can, use a fan, get a drink of cold water, sit in a breeze if we can find one, and "cool off." The poor cradled baby cannot do that; it must either lie on a hot mattress or be held in warm arms, and it suffers until its vitality is exhausted. The first thing to do in such a case is to get the baby into the open air, and keep it there. A small string hammock in an open window, a clothes basket on the roof, a baby carriage at the doorstep—anything is better than a stifling room that stays hot for hours after the temperature has begun to fall outside.

Do not let the baby lie directly on a mattress or pillow. Use a large, clean sheet of paper for a sheet—paper is a nonconductor of heat—and cool it with a cold-water bottle or two. A cold-water bottle in summer is just as useful as a hot-water bottle in winter. If the outside air is very close, fan the child until a breeze comes up; do not carry it into the house when it grows dark—the cool night air is exactly what the baby needs. Above all, do not neglect to protect the baby from flies with a yard or two of netting.—*Selected.*

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### A Day in Bed

THE way some people feel about sleep you would think it was mankind's greatest enemy. The less they get of it, the happier they are (for a while), and feel that they are beating nature at her own game when they can keep going without much sleep for some time and not collapse, and often boast about how fit they feel on a narrow margin of sleep.

Sleep is nature's restorer and greatest beautifier, and nine hours a day is what woman should get if she expects to retain health and good looks. The more high strung a woman is, and the more finely organised, the more sleep she requires. The dull woman can sleep. She seldom curtails her sleep; but the nervous one, who needs the most sleep, finds it hard to do so if under even the mildest excitement.

Instead of resorting to drugs when that weary feeling begins to steal over one, make a firm stand against them. Substitute the sleep habit for the drug habit.

For busy women, one day a week in bed will do wonders, and save time and money. It is important for high-strung women to learn how to be calm. Sleep more: that reposeful manner that is so refreshing to see depends on abundant sleep, the help to women in retaining health and good looks.

When a woman begins to get cross over trifles and the slightest disagreement makes her feel like jumping up and down, then she should know she must not go and get a cup of tea or medicine, but start in for a series of rests. Give herself the rest cure, and she will not have to go away from home to do it.

Go to bed two or three nights in succession at 7 o'clock and insist on a happy medium in her hours of sleep, and make up with extra sleep any extra physical or mental strain. There is no drug that has the reparative power of sleep, and there is nothing that can equal it as a remedy for worn, exhausted nerves. It is the healer and comforter of all troubles, mental and physical.—*Health Culture.*

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IF you make home pleasant for the children with books and games and an occasional treat, you will not be worried by their being on the street at night.

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A READING-GLASS of good, magnifying power has many uses in the home besides helping the sight of the aged. If such a glass is kept in the sewing-machine drawer it will aid in threading a fine needle quickly. It is also useful to locate the splinter in a child's hurt finger, and examine any wounds and sores. The names of places on small maps are in such fine type that it will be of much use with any atlas, especially in the evening. It ought to be used frequently to spare straining the sight.



## Keeping Young Children Well

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

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

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

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

Imperfect digestion is quite common among children when they begin to eat solid food. It is often caused by their swallowing their food before it is thoroughly mixed with saliva. Mothers of the uncivilised world in some cases obviate this difficulty by the very simple habit of masticating the food first in their own mouths. Indeed, I have seen this done by women in our own country. This

may seem not merely disgusting, but unfair to the child, and especially in the case of an unhealthy mother. However, when you consider a vigorous, healthy mother, with a mouthful of sound, white teeth, this practice is partly robbed of its unwholesomeness, especially as it insures a child against indigestion. Of course this plan is not recommended, for one can never tell what infection the mouth may contain, but I have mentioned it to show the necessity for a sufficient use of the saliva. As soon as the child has teeth it can easily be taught to masticate its food. Give it a dry crust or a piece of toast now and then at meal time, which it will be obliged to use its teeth upon.

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

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

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

Observe some sort of regularity in the



A CHILD OF NATURE—AN EIGHT YEAR OLD TONGAN GIRL

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

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

foods; while colds are developed from the over-abundance of wastes which the body tries to throw off. So get the child out-of-doors every day, and *especially* if it is ailing.

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

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

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

There is really no reason why a child should ever be sick. I feel perfectly certain that children reared under proper conditions of life would not "catch" these diseases, even if exposed. It is the child with the lowered vitality that is subject to them. Depend upon it that there is something wrong somewhere when the little one gets whooping-cough, measles, scarlet fever, and the like. Doubtless there are disease germs lurking everywhere and in everything, and no one can escape eating them and breathing them at every turn. Our dwelling places

are not ideal, and we cannot chemically analyse every morsel of food and every drop of water consumed. We have little or no control over the sanitation of the schools, the condition of the streets or our neighbours' homes, or the health of other children. But if good health is maintained a power of resistance is established that effectually baffles all efforts upon the part of these germs to settle down and make trouble. The body normally has the power to destroy disease germs, but as soon as the system becomes run down, these germs gain a foothold and multiply, and illness is the result.

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

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

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

If the child is fed regularly, its diet well balanced with plenty of fruit, if the

bowels are normal and the youngster bathed often, with lots of fresh air, the mother may consider her little one quite immune from disease.—*Edith M. Bates-Williams.*

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## Mouth-Breathing

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

MOUTh-BREATHING is a common habit in children. The usual primary cause is an acute cold in the head which causes swelling of the mucous membrane and infection of the tonsils and adenoid tissue at the back of the nose. In a simple cold these tonsillar tissues are scarcely involved, or at least only to a slight extent, but when there is anything like serious infection these glands become much enlarged.

The swelling of the tonsillar tissue immediately behind the nose tends to close the posterior air passage, and if the swelling is sufficient it is difficult and may even be impossible to breathe through the nose; therefore the child takes to mouth-breathing. If this swelling persists for some time the mouth-breathing habit is readily acquired by children, and often will persist even after the swelling has very much diminished. This condition is called adenoids, which is one of the most prevalent of the milder diseases from which children suffer. But the after effects of adenoids are far more serious than many people realise. If adenoids are acquired early and neglected the face becomes deformed, for the nose no longer has a proper chance for development. Furthermore, the other organs of the body suffer on account of lack of oxygen, and the result is that the child becomes dwarfed both physically and mentally, and sometimes an otherwise normal life is seriously blighted for all time.

Some time ago 1,246 children who were attending three public elementary schools in London were carefully examined, and it was found that thirteen per cent of these were either partial or complete mouth-breathers. Five-sixths of these mouth-breathers suffered from either enlarged

tonsils or adenoids, and required treatment and in most cases the removal of the adenoids.

It is not a difficult thing to discover mouth-breathing in a child, and all parents and especially mothers should make it a point to watch their children carefully and notice their breathing. The simplest way is to watch the child during sleep. If the mouth is then closed and the child is breathing properly through the nose there is little danger of adenoids or even enlarged tonsils. If on the other hand the mouth is open, the child should be taken to the family physician at once for examination and counsel as to the proper course to take. There should be no delay in this matter, but always prompt action, for the sooner the matter is attended to the better for the child.

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### Delirium

WHEN all parts of the brain work properly together, our consciousness of what is going on in the world round us is an orderly one; things are, as the doctors say, "properly co-ordinated." But if that co-ordination is disturbed, the consciousness gets muddled, things lose their relation to one another, and everything becomes topsy-turvy. That condition is called delirium, from the Latin word for crazy, and it is not a disease in itself, but a symptom that may complicate many diseases.

It may accompany some grave brain trouble, such as abscess or tumour, and it is seen in many forms of insanity. In the form of delirium tremens, it follows acute poisoning by alcohol. Then there are deliriums that complicate such acute infectious diseases as typhoid fever, pneumonia, diphtheria, and scarlet fever. Moreover, delirium is often produced by poisons in the system; not only by poisons taken into the system, but by poisons formed by the system itself, as in various kidney diseases, in which the body loses its usual power to eliminate its injurious

products or to counteract them chemically. There is also the delirium of collapse, which is seen in the later stages of starvation, or of extreme exhaustion.

The cause that underlies a case of delirium must first be found, because the treatment will vary in accordance with it. Few of us are called on to deal with delirium tremens, or with the delirium of starvation, or with that terrible form known as acute delirious mania, which generally ends in death. But the delirium that accompanies typhoid fever, pneumonia, or the acute infectious fevers of childhood is of common occurrence, and it is well to know that much can be done to prevent it, or to bring relief after it has begun. Sedative treatment, such as a warm bath with cold applications to the head, will often ward off an attack; but when there is great prostration of strength, stimulation is usually necessary. Delirium is always exhausting; see that the patient's strength is kept up as far as possible. And never leave a delirious patient alone, even for a minute. There are too many cases of sick people falling from open windows.—*Selected.*

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### SEND THEM TO BED WITH A KISS

O MOTHERS, so weary, discouraged,  
Worn out with the cares of the day,  
You often grow cross and impatient,  
Complain of the noise and the play;  
For the day brings so many vexations,  
So many things going amiss;  
But mothers, whatever may vex you,  
Send the children to bed with a kiss.

The dear little feet wander often,  
Perhaps from the pathway of right;  
The dear little hands find new mischief  
To try you from morning till night;  
But think of the desolate mothers  
Who'd give all the world for your bliss,  
And, as thanks for your infinite blessings,  
Send the children to bed with a kiss.

For some day their noise will not vex you,  
The silence will hurt you far more;  
You will long for their sweet childish voices,  
For a sweet, childish face at the door;  
And to press a child's face to your bosom,—  
You'd give all the world just for this.  
For comfort 'twill bring you in sorrow,  
Send the children to bed with a kiss.

—*New Orleans Picayune.*

### Smiling for Beauty

Do the corners of your mouth naturally droop down?

If they do, go and stand in front of a mirror, and prop them up with your fingers ever so slightly, and see if your whole face does not become not only pleasanter, but prettier.

I think it will, for the prettiness value of a pleasant expression is not just in its temporary lighting up of a face—it is also the mould in which it leaves the face that counts the most.

The ugliest girl I know is one whose discontented disposition has drawn down the corners of her mouth, and whose habit of continual frowning has marked two sharp wrinkles between her eyes. In other details of appearance she is not particularly blessed, but without these disfigurements she would be simply ordinarily plain. With them she is—as I before remarked—the ugliest girl I know.—*Health Culture.*

### A Difficult Task

A LITTLE girl who had a bantam presented to her was disappointed at the smallness of the first egg laid by the bird.

Her ideal egg was that of the ostrich, a specimen of which lay on the table in the drawing-room. One day, the *Yorkshire Post* tells us, the ostrich egg was missing from its accustomed place. Later

it was found near the bantam's nest, and on it was stuck a piece of paper with the words:—

“Something like this please. Keep on trying.”—*Selected.*

### A Good Wife or a Bad One

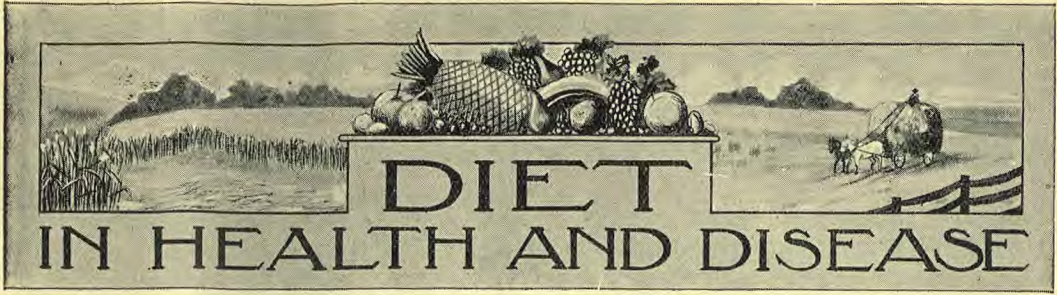
ABOUT the year 1770, so we are told, one Martin Kallikak, a young man, morally and physically straight and of good family, met a feeble-minded girl, by whom he became the father of a son, who proved later to be mentally unsound. Subsequent to this, Martin married a woman of good family and became the father of a child by her. Now this feeble-minded girl who bore the feeble-minded son had 480 traceable descendants who are accounted for as follows:—

- 46 Normal.
- 36 Illegitimate.
- 14 Immoral.
- 143 Feeble-minded.
- 82 Died in infancy.
- All others unknown.

Now Martin's descendants as a result of the union with the normal-minded girl numbered 496, and out of this goodly number 493 were normal individuals. The men, with few exceptions, were intelligent, industrious, and upright, while the women were refined and cultured.

There is an old-fashioned prejudice in favour of marrying into a “good family.” There may be something in it!—*Selected.*





## The School Boy's Lunch

EULALIA RICHARDS

**T**HERE are many children who attend school some distance from home, and who require to carry their lunch with them.

At first thought, the preparation of the children's school lunch may seem a trifling affair, just the hasty spreading of a few slices of bread with butter and a little jam between. But does such a lunch meet the requirements of the child's growing body? Does it satisfy the demands of the boy's keen appetite?

The growing child requires an abundance of wholesome, nourishing food, not only to build up his physical structure, but also to sustain the constant activity of his mind and body. The ill-fed child finds difficulty in concentrating his mind upon his studies, and his weakened resistance to disease leads to frequent absence from school. Then, too, the boy whose lunch proves inadequate is the boy who spends his pennies, however procured, for vanilla wafers and other cheap sweets en route from school. This custom of purchasing and eating sweets at all hours has a detrimental effect not only upon the child's digestion, but also upon his character, leading, as it does, to lack of self-control and inability to spend money wisely.

"But," asks the busy mother, "if I give my children a good breakfast and cook dinner for them in the evening, does it matter so much about the mid-day lunch?" We believe that it does matter, and for this reason: Although a whole-

some breakfast is provided, one's appetite is not usually keen in the early morning. Then, too, the haste with which the meal is usually eaten leads to rather unsatisfactory results. By noon the child is unmistakably hungry, and is prepared to appreciate an appetising and liberal lunch. Now, if the lunch be insufficient in amount or lacking in quality, there results a sense of disappointment, a craving which is not satisfied. By evening time the child's appetite is something to be reckoned on, yet he is perhaps weary with the day's exertions, and is not in a fit condition to digest the hearty meal which his appetite demands. It were far better to provide a substantial lunch and make the evening meal somewhat lighter than is the custom in many homes.

The child's lunch, to be satisfactory, must be ample in quantity, excellent in quality, and sufficiently varied from day to day. Attention must also be given to the manner of packing the lunch so that it shall be pleasing to the eye as well as to the taste.

Sandwiches usually form the chief part of the lunch, and of these there should be considerable variety from time to time. In preparing sandwiches, select a suitable loaf which is fairly fresh, cut in thin slices, butter evenly, and spread the filling between the buttered slices. Cut the sandwiches in convenient shape, and wrap in white paper (preferably sandwich paper). The following may be used for sandwich filling: Scrambled egg, peanut

butter, nut meats, dates, tomatoes, bean purée, lettuce leaves with dressing, and lastly jam. It is usually well to provide two varieties of sandwich each day, a few of the proteid sandwiches, as egg or nut butter, and a few sweet ones in place of desert.

Occasionally, for the sake of variety, the sandwiches may be replaced with pasties containing nut meat and potato

cakes, and such like, all of which may be provided occasionally by way of variety.

But whatever else is provided, fruit of some sort should form a part of every lunch. Apples, bananas, oranges, peaches, pears, plums, apricots, and even grapes are suitable for the school lunch. If fresh fruit is not obtainable, dried figs, prunes, apricots, and raisins may be used.



Off to School

filling, or nicely seasoned lentil purée. These, of course, should be prepared the day before. Or hard-boiled egg may accompany slices of plain bread and butter.

A few tender radishes or a little crisp celery adds an appetising touch which is much appreciated by many children. Blanched almonds are usually acceptable, and are quite wholesome if taken in moderation and thoroughly masticated. Then there are various biscuits, wheat-meal rolls, home-made fruit cake, rock

These should always be thoroughly washed before being eaten.

But again the busy mother asks, "How can I ever be bothered planning and preparing such varied lunches?" Oh, but each lunch should be quite simple in itself, and it only requires a little thought and planning to bring about the variety from day to day. Then in order to gain time in the morning all preparations except the actual cutting of the sandwiches may be made the day before. One



mother who plans her work systematically, each evening before going to bed, lays out on the kitchen table the children's lunch box, the fruit she intends to use, and paper for wrapping the sandwiches. She also does up any biscuits, nuts, cake, or dried fruit which are to be included in the lunch. Then in the morning she has only to cut the sandwiches and pack the lunch in the box, a task which requires but a few moments.

We may close with a few suggestive lunch menus:—

- |  |                     |
|--|---------------------|
| 1. Lentil Pasty                        | Wheatmeal Rolls     |
| Jam Sandwiches                         | Raisins and Almonds |
| (Jam between slices of buttered bread) |                     |
| 2. Nut butter Sandwiches               | Tomato Sandwiches   |
| Apples                                 | Figs                |
| 3. Bean Sandwiches                     | Fresh Celery        |
| Date Sandwiches                        | Oranges             |
| 4. Hard Boiled Egg                     | Bread and Butter    |
| Radishes                               | Fruit Cake          |
|  | Bananas             |
| 5. Nut-meat Pasty                      | Fresh Tomato        |
| Jam Sandwiches                         | Fruit in Season     |

### To Have Vegetables at Their Best

WITH many vegetables the shorter the time which elapses between the moment they are picked and the moment they go into the saucepan the better the quality when they appear on the table. This is especially true of peas and corn. Peas should be gathered immediately after the pods have been filled and early in the morning, before they have been exposed long to the sun's hot rays. To retain all their flavour the peas should be cooked in water which is boiling at the start and which has been salted. The addition of a little sugar will prevent the peas losing their attractive colour. It is best not to cover the saucepan or stir the contents.

Corn is to be picked when it is in the milk, with the milk just turning brown. Many people cook the ears without removing the thin inner husks, so that none of the flavour may be lost, and if the ears are young it is best that the water should not boil at all. The water should be salted and simply allowed to come to the

boiling point. In any case, long continued boiling spoils the corn. Ten minutes should be the limit.

French beans should always be picked before they have attained full size and maturity, both to increase the yield and to have them at their best. They are best cooked in an uncovered dish and in salted water which is not permitted to cease boiling. Lima beans should be picked as soon as a sign of yellow appears. Then they will be just mature enough for the table, and the vines will yield a long time. It is important not to disturb the vines of any beans while they are wet; to do so is to invite rust.

Tomatoes should come to the table cold and without their skins. The latter may be removed by rubbing them over with the back of a knife or by plunging them quickly into boiling water. The latter method is the quickest, of course, but care should be taken that they are not left in the water long enough to acquire a cooked flavour.

Summer squashes must be gathered before the shell hardens. The outer leaves only should be removed from Swiss Chard, and that when they are about three-quarters grown. Then the plant will go on making new leaves for many weeks.—*Selected.*

### To Reduce the Cost of Living

The "high cost of living" bug-bear would burrow in the ground and hide its head in shame if everybody who has a little land would plant and care for a garden. The trouble with most people nowadays is that they want to raise their table supplies on the fertile expanse of a grocery counter, and cultivate it by telephone. "Hello, grocer Jones!—send me right away three onions for soup, a sprig of parsley, and a pint of dry lima beans." Now in the name of all that's sensible, why is this thusly? Why weren't the onions and limas raised on the place or in the back-yard, and stored away for

winter needs? And why isn't some parsley growing in a box in the kitchen window? Nobody answers; they are all too busy growling about expenses.—*Farm Journal*.

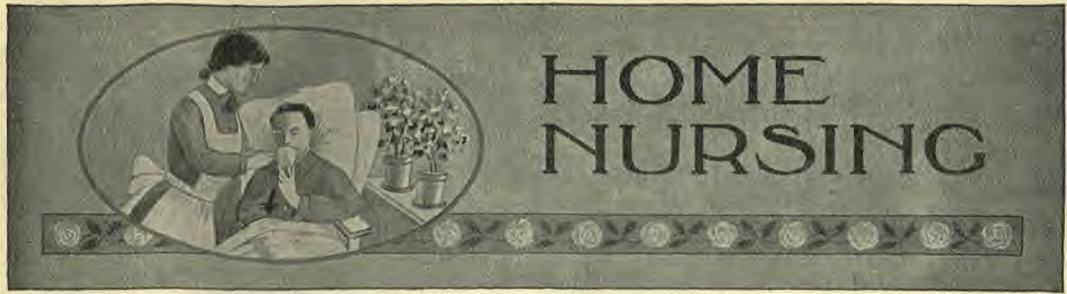
A MAN may drink in such a way as never to feel consciously excited or embarrassed, yet ruin his health and cut short his days more speedily and surely than the man who is dead drunk every Saturday night.—*Dr. Greenfield*.

“IF you do not wish to be abnormally thirsty on a journey avoid highly salted and highly spiced articles of food before you start. One wise father always sent his children to the tap before going out even for a short trip. ‘Go and get a drink,’ he said, ‘you will be thirsty before you get back if you don’t.’”

### Careless Handlers of Food

“WHEN I go into a restaurant kitchen it makes me hate to go to my meals,” said a travelling man not long since. Many a good appetite would be spoiled if the eater could see how the food was cooked and handled. Fortunately public sentiment is being aroused, and the places where cleanly methods are employed and advertised are getting the patronage. Boards of health are beginning to deal with uncleanly restaurants and bakeries. It is important also that the people who handle the food should be healthy. The Sanitarium Health Food Company's cafes are models of cleanliness, and their employees are students of hygiene. The addresses of these establishments will be found in our advertising columns.





## Nature's Blood Purifier

Simple and Effective Means for Purifying the Blood—Errors of Diet Responsible for Many of the Ailments so Common in Springtime

DAVID PAULSON, M.D.

**M**OST of us who were blessed with thoughtful mothers can remember how we were regularly compelled each spring to take various blood purifiers. Time has led us to question the efficacy of the blood remedies, but it has by no means discounted their necessity.

### A "Touch of Scurvy."

Dr. Evans, formerly health commissioner for Chicago, writes, "This is the season of the year for scurvy." He does not mean the fully developed type, such as sailors used to suffer of when they were absolutely deprived of fresh vegetables and lived largely on salted meat, but rather the A B C of the same thing. As Dr. Evans expresses it: "With some it will go no further than repeated spells of bad breath; with others a multitude of vague aches and pains variously called rheumatism, sciatica, lumbago, gout; with others there will be attacks of sore gums; with others the face will be pale and a little bloated, with dark circles and slight bloats around the eyes; with others there will be patches of skin eruption."

### "Spring Fever."

This is also the time of year for those popular disorders known as "spring fever." The breaking of winter's cold fetters has set free a multitude of vicious germs, but

that in itself would be of little consequence except for the fact that the winter diet of the majority of our population has been such as to break down resistance to disease and thus to encourage the activity of the deadly microbe.

### They Make Acidity of the Blood

Gautier, the eminent French dietetic authority, says: "Bread and meat suffice to nourish man, but they cannot maintain him indefinitely in health. They both, as has been seen, have a tendency to *acidify* the blood. Should vegetables be wanting at any time, the humours will become less and less alkaline, and symptoms of a scorbutic [scurvy] nature will appear."

During winter, people are likely to substitute sugars and various sweets for the deficiency in vegetables, fruits, and green garden produce. This excess of cane-sugar and its preparations tends to increase still further this "touch of scurvy." Coffee and tea, both of which are really "drug drinks," and should therefore be purchased from the druggist instead of the grocer, tend still further to aggravate this same condition.

### What Coffee Will Do

On this point Gautier says: "Coffee, as every one knows, produces a nervous excitement, which, if abused, may lead to

insomnia, hallucinations, troubles of the circulation, and muscular innervation, to precordial [heart] distress, and to dyspnoea [breathlessness]. One may become caffeic just as one can become alcoholic or a morphia maniac. Some people, nevertheless, do not readily suffer from the abuse of it. But it ought to be especially forbidden to arthritics, to uratics [uric acid conditions]—amongst whom it often causes gravel—to gastralgics, to dyspeptics, and to those suffering from Bright's disease."

#### Nature's Ideal Blood Purifiers

Fruits, vegetables, and especially such green things as lettuce, raw chopped cabbage, and spinach, contain just exactly the mineral salts that nature needs as her ideal blood purifier; and that is the reason most people instinctively crave something of that sort this time of the year.

But those who live naturally during the winter have neither this craving, nor the "spring fever," nor the "touch of scurvy." On this point I again quote the following vital question and sensible answer from Dr. Evans:—

How can I get through this winter and early spring without skin eruptions, rheumatic pains, puffy face, and the other signs of a touch of scurvy?—The first requisite is to eat fruit for breakfast. Two fruits should be eaten each morning—one raw and one cooked.

The best raw fruits are oranges, limes, lemons, grapefruit, pineapples, and apples. In addition, cooked apricots, apples, peaches, pears, baked apples, or other fruit should be eaten. As soon as the berries come in the spring, scurvy goes out. This is the season of the year when raw carrots are good for the complexion. Raw carrots, by preventing and curing spring touches of scurvy, may prevent some muddiness, some puffiness, and may cure up some spring blotches.

Raw vegetables are better than cooked from the scurvy standpoint. There is some reason for thinking there are ferments—delicate chemical substances—present in raw vegetables and essential for health, and that these are destroyed at the cooking temperature.

Potatoes are extremely rich in mineral salts; and Gautier advises, in acid conditions, to replace bread partly by stewed potatoes, on account of their well-known ability to alkalize the blood.

#### He Pays Three Times

The man who daily eats a large amount of flesh food will generally discover that sooner or later he is paying for it thrice,—first to the butcher, and then to the doctor and the druggist; for as Gautier expresses it:—

A meat diet acidifies the blood and diminishes oxidation. It charges the humours of the system with a superabundance of nitrogenous wastes, uric acid in particular; it increases the urinary alkaloids; it congests the liver; it brings on an obstinate constipation, and causes dyspepsia, gastric difficulties, and enteritis; it leads to psoriasis, eczema, etc; it develops rheumatic, arthritic, gouty, and nervous tendencies.

While vegetables and fruits for the most part contain but a small amount of actual nourishment, the large amount of cellulose they have furnishes bulk that serves to encourage the activity of the alimentary canal; and at the same time their valuable salts not only cleanse the blood, but actually stimulate nutrition. Hence it is advisable always to make them an important part of the regular dietary.

#### Bilious Headaches

J. R. Leadsworth, B.S., M.D.

No more distressed class of patients can be found than those suffering from the so-called "bilious attacks." Generally they begin with a severe headache, sometimes on one side of the head, or over the temples. The patient often feels sick at the stomach, and frequently vomits a quantity of food mixed with bile. The bowels are invariably sluggish or obstinately constipated. The frequency of these attacks varies from once in two or three days to once a month. When the condition has existed for some years, it is often found that the attacks grow in frequency and severity.

The most common cause of sick-headaches is faulty elimination. The human body contains the most deadly poisons, but these are made innocuous so long as the body is in a high state of resistance. To illustrate: We have phosphorus in the blood, hydrochloric acid in the stomach, potassium sulphocyanide in the saliva,

and even arsenic as a normal ingredient. We are told by one authority that the saliva of some men is nearly as poisonous as the venom of a serpent. Also that the juices of various glands when injected into the blood will kill an animal as quickly as a rifle bullet, but entering the blood from the glands in a normal way, not too much at one time, they preserve the balance of the body and prevent disease.

Bouchard, the French investigator, was among the first to recognise this condition of self-poisoning. He says: "Man is constantly standing, as it were, on the brink of a precipice. Every moment of his life he runs the risk of being overpowered by poisons generated within his system."

Enough has been said to make apparent the most common cause of "bilious headache." A case recently in the hands of the writer will illustrate the treatment. First, it was designed to limit the intake of poison-forming substances. Secondly, an effort was made to keep the eliminative organs prompt and active, so that the minimum amount of poisonous excretions would be reabsorbed and carried back into the circulation.

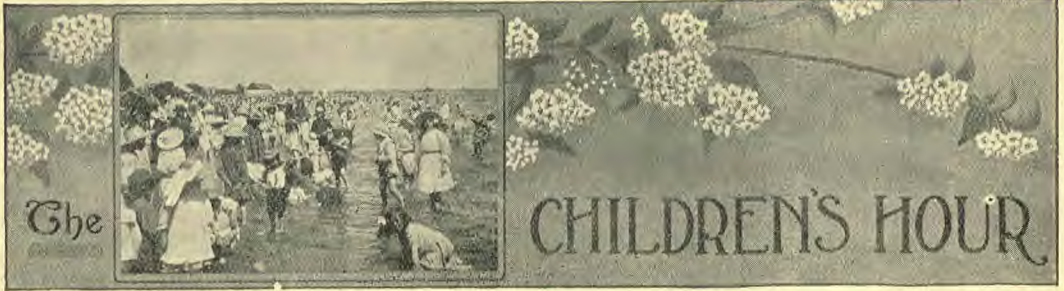
The first of these objects is attained by a carefully selected diet. Raw and cooked fruits are excellent if the digestive organs will allow of their being taken freely. Then comes zwieback, well-cooked or toasted grains, rice, macaroni, baked potato, cauliflower, and other well-cooked vegetables, butter-milk, and cottage

cheese. The case under consideration was kept almost exclusively on fresh butter-milk for several weeks, with the addition of zwieback and sterilised butter. Later other articles enumerated above were allowed.

Treatment to counteract the influence of natural body poison consisted of hot applications over the liver and stomach, with a short ice compress applied between each fomentation; this to be repeated three times, the whole process lasting about twenty minutes. This treatment should be given once daily and oftener in severe cases. A cold wet girdle with a flannel applied on the outside should be worn at night. In the case above mentioned hot leg packs were given three times a week, the head and neck being thoroughly cooled by cold compresses. As is the usual condition, the bowels were sluggish. For this, high colon irrigation was prescribed, using cool water at a temperature of 85° Fahr., containing a teaspoonful of salt to the quart of water. Taken two or three times weekly, the colon flushing encourages a free osmosis of the stagnant excretions into the large intestines. Teaspoonful doses of vegetable charcoal taken a short time after meals will have a marked influence toward deodorising and disinfecting the intestinal tract in cases where there is such a marked tendency to sluggishness.

If the skin is inactive, take a sweat bath once or twice weekly. Persistence in these methods will modify the frequency and severity of these attacks, and often result in a complete cure.





### The Game of "Espy-Doubly-Dee"

THE washing of the breakfast dishes had consumed an hour of the twins' morning, and as, on one pretext or another, it had taken considerably more than half an hour for them to get ready to wash them, serious inroads had been made upon the morning itself. It was plain that the fact of a growing habit of procrastination—or of dawdling, which possibly was even worse—could no longer be ignored by the twins' mother, Mrs. Gordon. Something must be done, and quickly. But what?

An hour's thought—while Mollie and Kitty made their twin beds, incidentally stopping to read the children's page of the family magazine—resulted in a scheme little short of an inspiration. She called the girls to her when they came downstairs.

"Did you ever hear of the game of 'Espy-doubly-dee?'" she questioned, guilefully. "There's always a prize for the one who wins, if two or more play the game. It can be played by one alone, however, occasionally, though in this case variations occur. There's a real fascination about the game."

"Can we play it now?" Mollie asked, eagerly.

Mother Gordon considered. "All your work done?"

Kitty scowled. "I've got the front stairs to sweep—and it takes so long!"

"Back stairs are worse," fussed Mollie, "so many crooks in 'em. We could do 'em this afternoon," she added tentatively.

But Mrs. Gordon shook her head. "It's a game you can play while you are

working," she said, smilingly. "The prize is always a secret until it is won. To play the game, you girls each choose a corner of a room to stand in before you begin upon the piece of work on hand. In that corner you say 'espy,' in the next corner 'doubly,' and in the next 'dee.' Then you go about your work, and the one who gets through first and in each corner of the room repeats those same words before the other is able to do so, wins the prize. Perhaps I really ought to tell you that there is a kind of secret magic in the words you repeat, but just what it is I must not tell, but allow you to discover it for yourselves."

"Let's hurry," Mollie said, catching Kitty's hand in hers. "'Espy-doubly-dee'—what do you 'espose the prize will be, Kit? We'll d'vide, anyhow, won't we?"

"Only it'll be fun to have the dividing to do," amended Kitty. "Now, then, 'Espy-doubly-dee.'"

"Be thorough," warned Mother Gordon, as the twins sped away to their respective flights of stairs, and both the children answered. "We will."

The prize that particular day was permission to make fudge, with the privilege of inviting two friends to share the fun. It was won by Mollie, who completed her task in the record time of nine minutes, the stairs being swept cleaner than ever before, so Mother Gordon declared.

Each day the prize was different, the same being played for that purpose only once a day, sometimes while washing dishes, sometimes over bed-making. At other times, however, the cabalistic words

were repeated over their various tasks—"for fun, Miss Molly said, while Kitty as stoutly declared that it was just for practice—while ever and always they wondered just what the meaning of the words could be. Saying them slowly one morning, Kitty's blue eyes opened wide in astonishment.

"Es-pe-double, edee," she repeated. "S-p-double e-d, speed—that's what it is, Mollie Gordon. Is it mamma?"

Mrs. Gordon nodded. "You have solved the puzzle," she said. "Best of all, dears, you have learned the happiness which the magic words, 'Espy-doubly-dee,' combined with thoroughness, always give to those who play the game."—*Bertha B. Bartlett.*

### Where the Joke Really Was

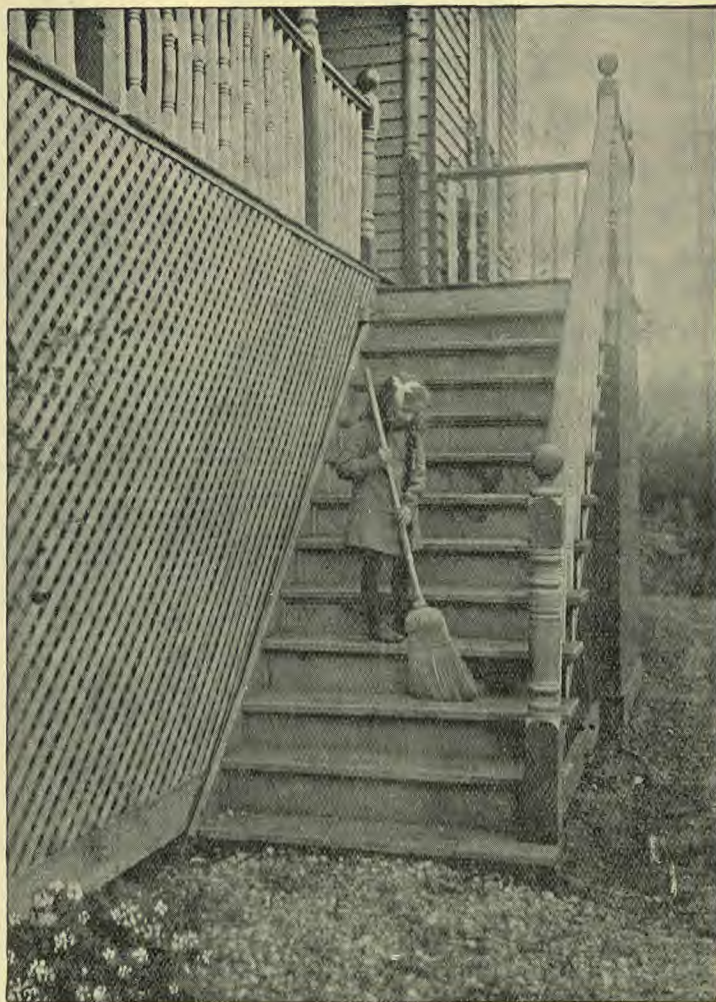
IF you have a grandfather or an uncle whose farm you love to visit, or if you live on a farm yourself, you will enjoy this story of a little girl's experience on her uncle's farm. And if you were never on a farm, why, you will enjoy it anyway. This little girl, who is a woman now, has told this story of her little-girl experiences.

When I was a little girl, she says, few things pleased me better than to visit Uncle David, who owned a large dairy farm.

One day when I was out in the woods with uncle he caught a young crow and

gave it to me for a pet. A crow, even in its wildest state, is a sort of half-domesticated bird. They are no trouble at all to tame, and aside from their trick of getting into mischief, they make nice pets.

My crow and I were pretty good



Helping Mother

friends by the time we got back to the farmhouse, and ever after that the bird lost no opportunity to play his practical jokes on anybody and everybody, but he seemed specially delighted when his victim was Uncle David.

All of this was accepted in good part by the dear old man, until one day the

bird—and I am sorry to say I was equally at fault—carried a joke so far that it came perilously near being a dead crow ever afterward.

Uncle was fond of working in his orchard and kitchen garden. In that same kitchen garden was a beautiful pear tree, which was always called my tree, because it was planted the day I was born. In the shade of my pear tree the crow used to perch himself and watch uncle sow seeds and set out young tomato and cabbage plants, while I looked on from my hammock on the back porch.

That day uncle had stretched a line some fifty feet long across the garden that he might make the rows straight. With a pan of young cabbage plants at his side, by means of a sharpened stick, uncle would punch little holes in the soft, rich loam, slip the root of a young cabbage plant into this hole, press the earth about it, after which he would make another hole a foot or so farther along, into which he would insert another plant, and so on to the end of the line. So intent was he on his task that he never raised his eyes from his work until he had the full row finished.

I shall never forget the look on my uncle's face as he straightened up and turned to view his work. My crow had followed along behind uncle and quietly pulled up every cabbage plant as fast as the old man had planted it, after which the wicked imp of a bird had flown into the pear tree, where he looked as innocent and solemn as if there was not a cabbage plant within a thousand miles. And I, who had watched the whole proceeding, pretended to be asleep in my hammock.

"It is the wind, and not the laughter of my little skeezicks, that makes that hammock shake so," said the dear old man.

Then I realised how naughty I had been. I threw my arms around uncle's neck and said, "Forgive me, won't you, uncle? I know it was wicked of me, but it was so funny to see that crow keep one eye on you all the time he was at work pulling up those plants! And then to

see him fly into the pear tree and laugh at you! It was so funny!"

"It was funny. It must have been—to you and the crow," said uncle, "but now suppose you try to look at the fun from my point of view by coming down into the garden and helping me reset those cabbage plants."

And that was the way I paid for my fun!—"Continent."

### In An Apple Tree

FRED stood on the lawn and watched Roger and his father drive away. They were going to the city, and he was left at home with mother and Skip, the water spaniel.

For a few moments Fred felt lonely, but soon, with Skip at his heels, he started down the path that led to the farm. The day was fragrant with the perfume of early spring, and all the trees were dressed in green.

The spaniel dashed after a squirrel that had come down from a hickory tree.

"Come back here, Skip!" shouted Fred; and the little dog gave up his chase and trotted back to his master. The boys had taught him what all good dogs should learn, and that is—to obey.

Beyond the hill, Fred came to a rolling meadow, and at the farther edge, in the shadow of the woods, was the deserted farm. The house had burned down years ago, but the chimney still stood upright, rising from a cellar that was overgrown with raspberry canes.

Fred paused an instant before he went on to the orchard beyond the broken-down stone wall. Some of the trees were dead, but there was one huge fellow the branches of which rose above the others and shone in the sunlight.

Fred decided to climb this tree.

Skip looked up wistfully, as if he were wishing that he might do the same.

"You can't climb a tree; so you can go and play," Fred said, and the dog trotted straight over to the old wall, where he eagerly nosed about in search of chipmunks.



The low, gnarled branches made climbing easy, and Fred was soon astride a round limb. Overhead, through the leaves, he could catch glimpses of the blue sky. There was a constant rustling, as if the breeze and the old tree were whispering secrets to each other.

It was like being in a swing, for the branches swayed steadily, but it was even more pleasant, because the ground below was half concealed by a network of twigs. It gave Fred a feeling of mystery to be in such a delightful place. He climbed to a higher branch, and clung with one hand while he enjoyed the sensation of being so high and so hidden.

What happened came with such great suddenness that the boy had no warning whatever. The dry branch to which he clung broke with a sharp crack. He clutched vainly with both hands for another hold. There was a dizzy moment of falling, a sudden jerk on his foot, and then everything seemed to be whirling round. He hardly knew what had happened.

Fred's foot had caught in the crotch of a limb, and he hung head downward, staring through the branches at the ground, which seemed far below. His first startled cry brought Skip from the stone wall. The boy could see him gazing up, as if wondering what this new, strange game was.

Fred groped in all directions to find a branch large enough to grasp, but all within his reach were small, and they bent when he clung to them. He tried to curl himself up and reach the crotch above, but his foot was caught in a way that made it impossible. He could neither move up nor down; he could only hang and swing helplessly to and fro.

He was frightened, and wanted to cry. He knew that if Roger were with him he would be ashamed to cry. Neither did he wish to let Skip see him lose courage. The little spaniel gave two sharp, questioning barks. It gave Fred an idea. There was only one way in which his dog could help him.

"Here, Skip!" he called, and the

spaniel barked again, and jumped into the air. "Go home!" Fred cried. "Go home, Skip! Tell mother to come."

Plainly the little dog thought that this was strange, but he had been taught to obey, and he turned to go. Still he hesitated, until Fred spoke again: "Go home, Skip!"

Perhaps the tremble in Fred's voice told the dog that his master was in danger. Suddenly he started, looking back at first, then running faster and faster, until he had passed the ruins of the farmhouse, and was out of sight beyond the broad green meadow.

Fred hung head downward and waited. There was little that he could do. His head began to throb strangely, and he tried twice to draw himself up to the forked limb that held his foot, but both times he failed. His leg was beginning to ache severely, and it seemed that he must cry out with pain. Tears did fill his eyes, but he made no sound.

He tried not to think what would happen then, if no one came; his head was throbbing more and more. He listened for the sound of Skip's bark, and heard only the distant cawing of a crow.

When would help come? He closed his eyes to shut out the dancing leaves that made him dizzy. How long he kept them closed he never knew—a long time, it seemed. Suddenly above the drumming in his head he heard someone say, "Don't move; we'll take you down." And then he heard excited barks that surely were Skip's, although the sounds seemed far away.

The next thing he knew he was being lifted, lifted—and then mother had his head in her lap, and her cool hands were soothing his hot forehead, while the old gardener was bending over them and saying, in his queer, high voice:—

"There, he's all right. See his eyes open."

When Fred was quite himself again, and they were all on their way home, mother said that the spaniel had come running into the house and had tugged

and tugged at her skirt, until she and the gardener had followed him.

"Won't I have something fine to tell Roger when he comes home!" said Fred, patting his dog. And the little spaniel looked up at him in a way that showed that he understood it all perfectly.—*Youth's Companion*.

### A Noble Heart

A FEW years ago a gentleman, going through a crowded part of the city of Glasgow, noticed a pale-faced little bootblack waiting for hire. Touched by the delicate look of the child, he thought he would give him the blacking of his boots to do. Accordingly he gave the little fellow the signal. The boy at once crept lamely towards the gentleman, and as he pulled himself along, was nimbly supplanted by another little

bootblack, who was immediately at the gentleman's feet and ready to begin.

"What's this for?" said the gentleman to the intruder, somewhat angrily.

"It's a' richt," said the newcomer brightly. "Jamie's jist a wee while oot o' the hospital, and the rest o' us taks turns about o' brushin' for him."

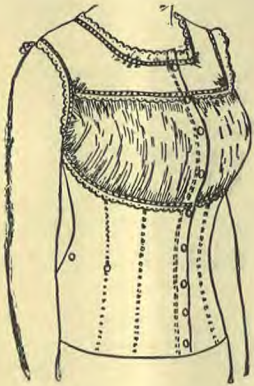
Jamie smiled pleasantly by way of assuring the gentleman that his comrade's story was true.

The gentleman was so gratified by this act of brotherly kindness that he gave Jamie's friend a whole shilling for his work, telling him to give sixpence to Jamie and keep the other sixpence himself.

"Na, na, sir," quickly replied the little hero, giving the shilling to Jamie and hurrying from the spot—"na, na, sir; nane o' us ever taks ony o' Jamie's siller."—*Children's Record*.



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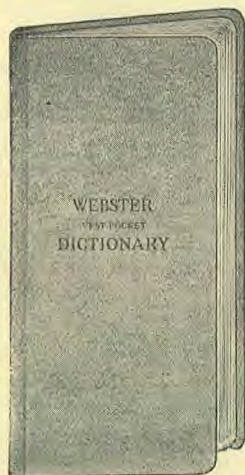
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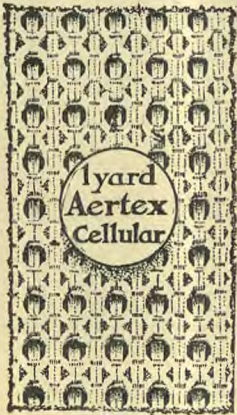
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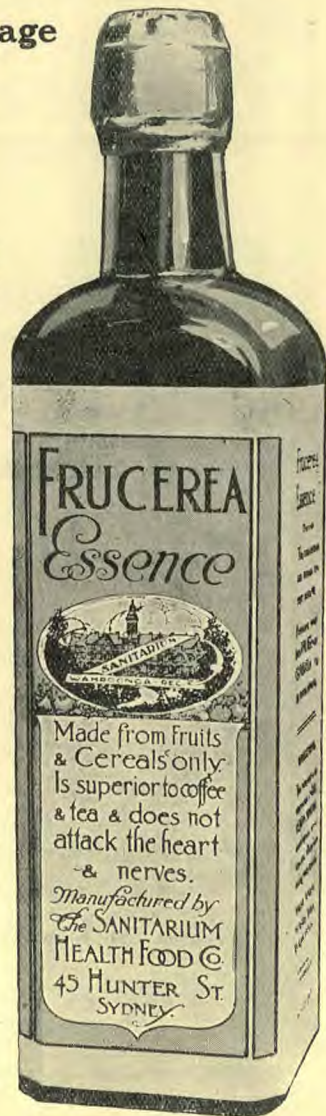
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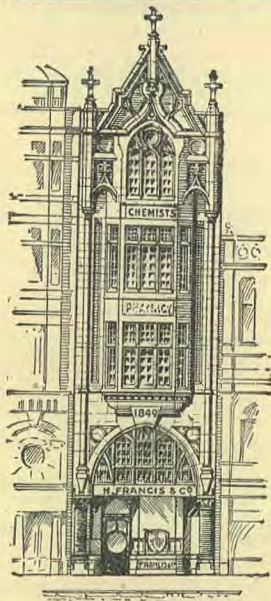
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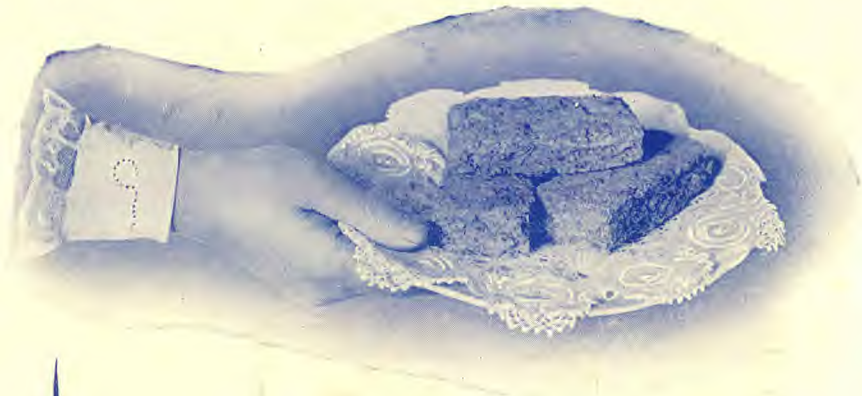
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