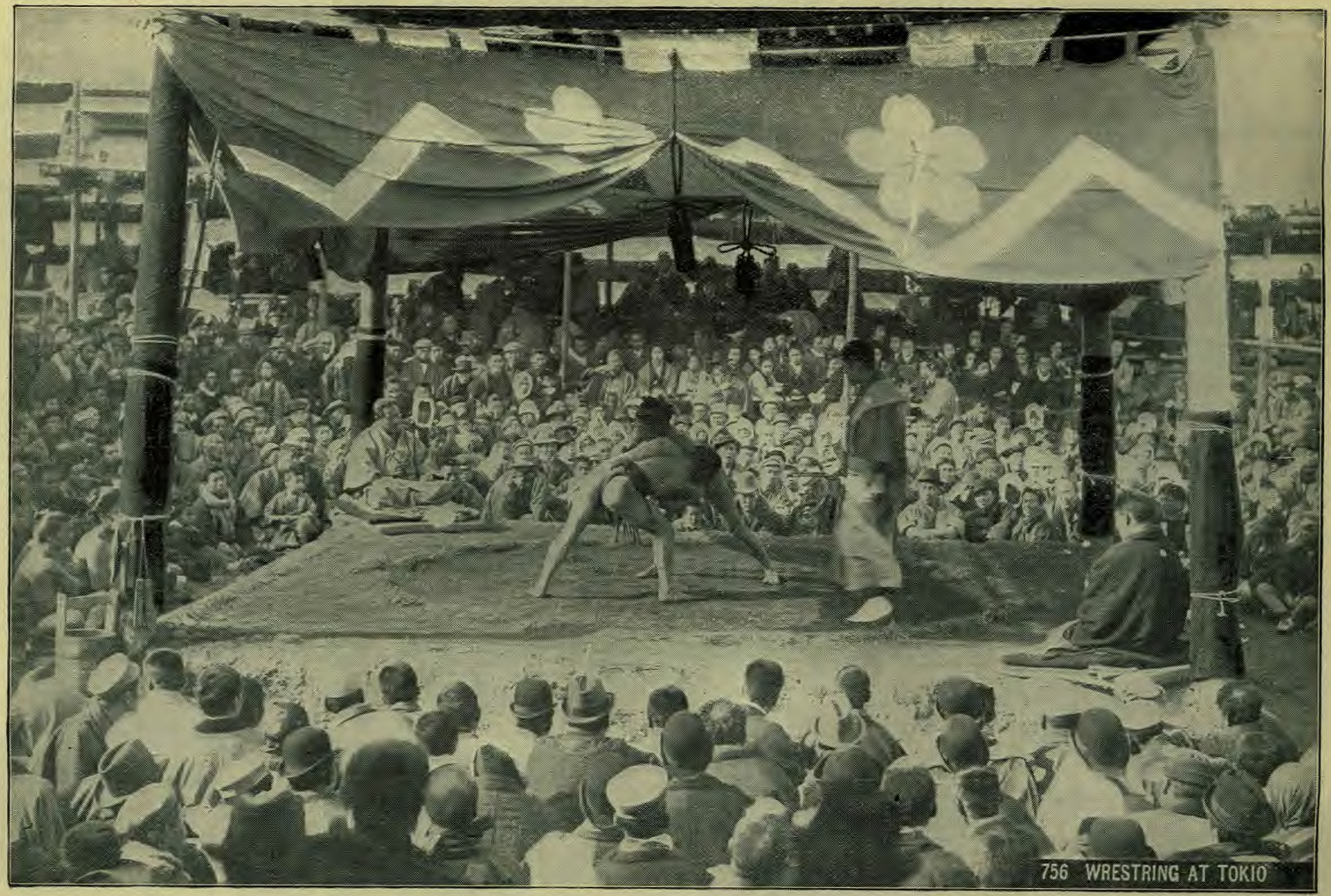


JAPANESE WRESTLERS.

Good Health

An Illustrated Monthly Magazine Devoted to Hygiene and the Principles of Healthful Living.

Entered at Stationers' Hall.

Vol. 3. March, 1905. No. 10.

EDITORIAL CHAT.

A Slaughter of Innocents.

No fewer than 1,750 infants were overlain in England and Wales last year. This is a fearful waste of precious human lives. The only sure remedy is to provide a separate sleeping place for the baby. It is never safe for a mother who sleeps heavily to have her infant in the same bed with herself.

Tight Lacing.

THE Leeds Anti-Corset League is said to number 100 members. This is a good start; but surely the time is coming when we shall be numbering the women who persist in wearing such a useless and harmful garment rather than those who have adopted a more graceful, healthful, and comfortable mode of dress. Tight-lacing surely cannot long survive the widespread dissemination of health principles which is such a hopeful feature of the present day.

Alcoholic Sweets.

THE craving for alcohol in one form or another is increasing everywhere and among all classes of people. This is the legitimate result of perverted appetite which has been inherited from bibulous ancestors. To satisfy this craving in children or to develop an appetite for strong drink, manufacturers have added alcohol to chocolates and sweets of various kinds. These are said to be imported from Germany.

It is scarcely necessary to point out the danger of alcoholic confections. The safest rule is to avoid candies and sweets altogether. Give the children fresh fruit, such as oranges and bananas instead of questionable sweets and lollypops.

Care of Children.

THE Holborn Town Council gives some excellent advice to mothers on the care of children. It is a well-known fact that careless feeding and downright neglect kill thousands of children every year. Among other good counsel is the following:—

"Children should never sleep in bed with parents.

"Do not give children under three years of age beer, spirits, wine, cheese, pickles, pastry, nuts or sweets.

"Do not give them teething powders or soothing syrups."

Food for Babies.

THE ignorance of some mothers concerning the feeding of babies is appalling. One mother gave a baby of ten weeks' biscuits, which led to suffocation causing the death of the child. On being asked by the coroner if she always gave her babies biscuits, she replied, "Yes." Further inquiry showed that she had previously lost a baby from indigestion.

Another baby of six months had an attack of convulsions causing death. The convulsions were due to improper feeding. In this case the little one was fed on bread and milk. Bread is a dangerous food for infants of a few months, and quite indigestible.

In still another case a little child was given pickles, which promptly resulted in death.

The best food for an infant is the mother's milk. If this is not available pure cow's milk, properly diluted with water and enriched with cream is the best substitute for the natural food.

BOARD AT TWO SHILLINGS A WEEK.

BY ALFRED B. OLSEN, M.D.

THE economical advantages of a natural diet are generally admitted. Grains and legumes are not only cheaper by weight than meat, but also contain a larger percentage of nutrient material.

The Relative Value of Beef and Bread.

Dr. Robert Hutchison in his excellent work on food gives a table showing the relative value of a shilling's worth of various kinds of foods. According to this table a shilling's worth of ordinary white bread contains thirteen times as much energy and twice as much building material as the same amount invested in beef. In other words the bread contains fifteen times as much food as the beef.

The same is true of peas; a shilling's worth containing fifteen times as much food as a shilling's worth of beef. There is, however, this difference: the peas contain less energy producing material than bread, but twice as much building material, and hence more nearly resemble the beef in composition.

Even the lowly potato holds the advantage when compared in this way with beef. A shilling's worth of potatoes contains more than four times as much energy as the same value of beef, but is deficient in building material by more than one half, since it is a starchy vegetable and contains but little albumen.

A Business Man's Diet.

We recently met a merchant from Glasgow who has made accurate notes of his weekly food bill for several months. He is a fine-appearing, healthy Scotchman, fifty-five years of age, and weighs ten stone six and one-half pounds. From the early age of nine he has earned his living by hard work, and to-day puts in on an average eighty hours a week in his business. He is a draper, and personally superintends his shop.

The following is his average weekly expenditure for food. It will be seen that the variety is small, and the total quantity, too, is certainly much below the average of what people generally take. But he was well satisfied, and easily maintained an equilibrium of weight. He showed every evidence of being well-nourished, and both felt and looked well.

Potatoes, seven pounds, ...	3d.
Whole Wheat Bread, one loaf, (2 lbs.)	3d.
Dairy Butter, half pound, ...	7d.
Olive Oil, half gill, ...	2d.
Rice, half pound, ...	1d.
Mixed vegetables, one pound, ...	2d.
Cocoa, two ounces, ...	4d.
	1s. 10d.

These particular figures cover something more than three months, but his diet previously was very much the same, and the expense would vary but little. This expense does not of course provide for the preparation of the food, which cost him but a trifle because of its simplicity.

If we take into consideration an occasional invitation to tea (which he never drinks), his weekly board bill may be easily placed at two shillings. Such experiences are both interesting and instructive, and may be the means of encouraging others to adopt a more simple and natural diet than is customary.

Less Proteid Required.

This diet certainly appears deficient in nitrogen, but may it not be possible that people require less nitrogen than is usually believed to be necessary. Last month in our Editorial Chat we called attention to the recent experiments and observations of Professor Chittenden, of Yale University, regarding the quantity of proteid (food containing nitrogen) required by the body. His conclusions favour a much smaller quantity than is usually advocated by physiologists and medical men.

It is quite generally conceded that most people eat too much, but only recently has it been possible to demonstrate this fact in an accurate and scientific manner. There can be no doubt but that the overloading of the system with food even though it be wholesome, is productive of great harm. As a result the blood is thickened and the tissues clogged with a surplus of nutrient material.

Now, if the excess consists chiefly of nitrogenous food it would seem that the injury must be still greater than if an extra quantity of starch is taken, for the latter can be taken care of more easily by the body.

THE HOME-CARE OF THE SICK.

BY FRANKLIN RICHARDS, M.D.

"Let There Be Light."

DARKNESS breeds disease. Death lurks in dusky corners. Disease germs love darkness rather than light because their deeds are evil. They are quite at home in dingy dwellings, in the dusty depths of curtains and carpets, upholstered furniture, rugs, furs, and feathered beds.

Light regenerates life. The sun's bright rays re touch the faded faces of the sick with tints of health. Light stimulates appetite, improves digestion, promotes nutrition and development, thus causing growth. It is especially indicated, therefore, in the treatment of sickly children. Scrofulous and rickety children derive great benefit from the light-air bath. The child is permitted to go about without clothing, or with as little as possible, out-of-doors, or in a room with wide-open windows through which the sun may shine. The sun bath is of special value in the treatment of such nutritional disorders, as anæmia. When sunlight cannot be obtained, the electric light is substituted for it, and is found very effective.

Light is good for all forms of life except parasitic life. Virulent microbes are destroyed by the sun's searching rays in a few minutes. Diffuse daylight requires hours or even days to accomplish the same result. Thus again is emphasised the importance of outdoor life, or well-lighted rooms for the sick. Here nature's universal disinfectant is ever at work destroying the active causes of disease and purifying the air.

The Seeds of Sickness.

Acting alone, germs do not produce disease. They are the seeds of sickness, it is true; but in order to bring forth fruit, seed must be sown in suitable soil. Good ground for disease-seed is prepared by bad habits and incorrect ways of living.

Some disease-seed falls by the wayside; some upon the stony ground of a well-fortified body; other, though falling upon the good ground of a weakened constitution, may even yet be choked out by a well-cultivated crop of health. Remembering then that he who sows bountifully shall reap also bountifully, let us cast in liberally the good seed of health; and "let us not be weary in well doing; for in due season we shall reap if we faint not;" and in spite of the tares which the enemy sows, Father Time with his scythe will ingather for us a bountiful harvest of health.

But what shall be done for the man in whose flesh the seeds of disease have been sown and are already thriving? Sometimes it is possible to destroy them. This may be done, for example, in the case of a boil, which is simply a germ-garden growing in the skin. Here it is easy to open the boil and remove the germs together with the soil they grow upon. The oozing blood helps to wash them out, and afterward it heals the wound made by the surgeon. Thus the essential part of the defence is from within. Help from without can only co-operate with and assist the body's defensive forces. If these forces are too weak to beat back the invading hordes, line after line of defence will be broken through until life's citadel itself is attacked.

Suppose, however, that the point of least resistance,—the "good ground" for disease-seed,—is not external, but some internal part where germs are not so easily reached and destroyed by the surgeon. Perhaps someone has dragged an oyster from his legitimate feeding ground at the mouth of the sewer, and someone else has had the courage to swallow this luckless scavenger, together with all that goes with him, including a colony of typhoid fever germs, some of which are soon snugly entrenched beneath the lining of the intestine, while others lie scattered upon its surface where they fell. What shall be done to help the body vanquish these hidden foes? How shall we strengthen its defences, increase its resistance, and call its reserve forces to the front?

In order intelligently to co operate with the physician in helping the sick man win in his battle for life, the nurse must understand something of the philosophy of healing. She need not necessarily know how to treat the disease, and the less she knows about traditional "remedies" the better; *but she must know how to treat the patient.* Whatever the disease, the patient needs to be made whole, and there is no

drug remedy in the world that possesses the power to heal. Healing virtue still comes from its ancient source, man's Creator. Nature is the medium. The blood is the carrier. It is the blood that heals, for "the life is in the blood."

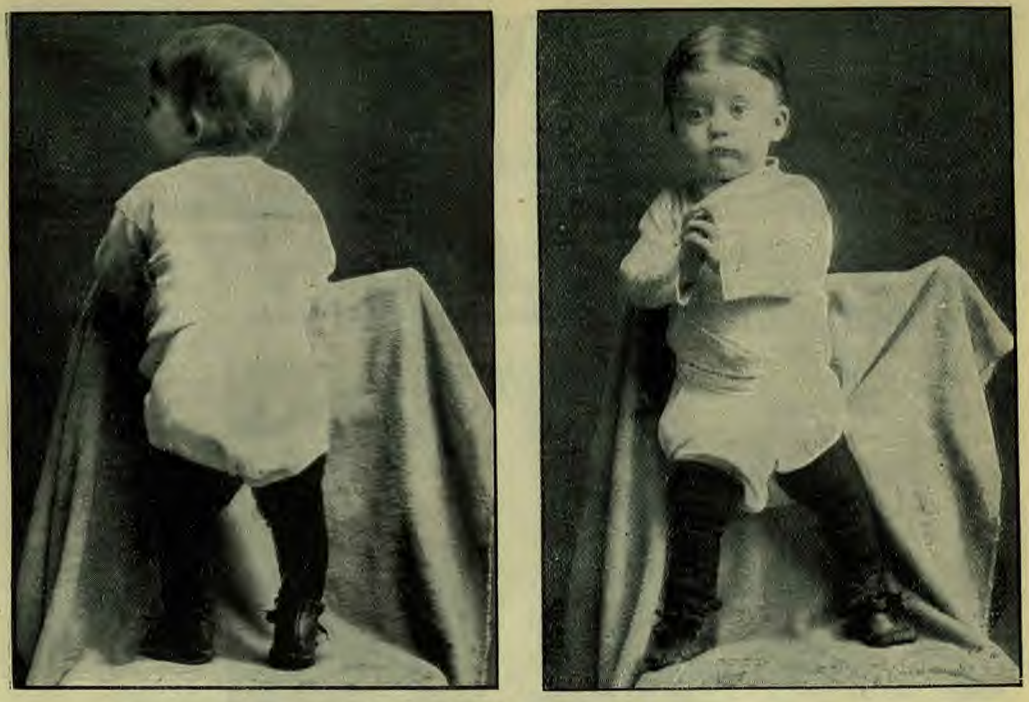
The blood not only does the healing, but it does the fighting for the sick man as well. Not only the body-builders are conveyed by the blood to every part, but the body-defenders also. These facts are of great practical importance to those who have placed upon them the responsibility of saving the lives of the sick; for, obviously, by controlling the circulation, we are literally controlling the stream of life; by increasing the flow of blood through an organ, we increase the number of builders and defenders in that organ.

The body is its own guardian, but it needs to be trained to defend itself effectively. The body-guards, like the Home Guards, require to be drilled and exercised into professional soldiers before they will fight imperially for their king—the man. Too often the body's warriors behave like raw recruits under fire for the first time. The blood itself, like a deserting soldier, at the first approach of danger skulks away to a safe retreat, allowing disaster and disease to ensue.

At this point it becomes clear how people "catch cold," and why congestions and inflammations are ushered in with chills, and accompanied by fever. By the blood hurrying into the warmer recesses of the body the skin and extremities are allowed to become cold, and there is chilliness and shivering. At the same time the internal temperature is increased,—there is fever.

Both chill and fever are indicators of the true state of affairs,—that is, they are *symptoms*. Symptoms as such, are not to be "treated." To throw a bucket of water on the furnace fire because some rooms are cold and others hot would be quite as rational as to give a "fever mixture" to damp life's fire when the feet are cold and the head hot. When the blood has been re-distributed, the heat-regulating apparatus will be re-adjusted, and nature's danger signal hauled down. To presume to drag them down without finding and removing the cause of the disturbance is to invite disaster and defeat. How best to equalise the circulation, prevent chilling and lower temperature, *while increasing the general vital resistance*, will be discussed next month.

UNDER-SKIRT WITH WAIST.



EQUABLY CLAD FROM THE FOUNDATION.

SHORT-COATING THE BABY.

BY MRS. E. E. KELLOGG.

LONG garments, always more or less an impediment to the free use of the limbs, are a constant hindrance to the physical development of the healthy, vigorous young child. There is no especial reason, save the conventional one of custom, why short garments should not be worn from the first, if the feet and limbs are otherwise properly protected for warmth. Some busy mothers, who have little time for sewing, have adopted this plan and use short clothes after the first month, up to which time only nightgowns are needed, since most of the babe's time is spent in sleeping.

During its prenatal life, the upper portion of the infant's body is better nourished than the lower, so that at birth the arm muscles are comparatively better developed than those of the lower extremities. Nature, however, endeavours to make up for this lack by giving the infant the inclination and energy to exercise its legs and feet by vigorous kicking during the earlier months of life. Long skirts greatly interfere with this necessary, normal exercise, and should be discarded, at least by the time the child is five or six months of age, if not sooner. The time must be somewhat dependent upon the season, as it is not advisable to make the change in the winter, particularly if the environments are such as to make it probable that the little one would take cold thereby.

DIAPER FOLDED LIKE DRAWERS.

The short clothes

DRAWERS.

should conform to all hygienic requirements, should equably protect every portion of the little body and nowhere constrict it. The mother would be considered culpably cruel who would pinch the baby's tender flesh with her fingers. Is it any less cruel to pinch the soft growing body with tight garments?

Soft rib-woven shirts, long-sleeved and high-necked, should form the foundation garment. Warm stockings of a thickness varying with the season, and covering the entire limbs, should reach to the diaper. These may for a time be fastened to it, but when the baby begins to creep and walk, a separate waist with stocking supporters is preferable. Children grow so rapidly that it is unwise to fit them to waists which allow for no expansion. If one cannot obtain the knitted waists, the best plan is to provide some of soft material made with several tucks running lengthwise under the arms, which may be let out from time to time to accommodate the growing form. Mothers should carefully guard against the little one's garments becoming too tight, from being outgrown, or shrunken. It is the wisest plan to take careful measurements of every part of the little body from time to time with a tape measure, and then of the clothing; compare the measurements and adjust the garments so that at all times they will be larger than the growing form they cover.

The diaper as usually doubled and pinned, serves as a hamper to freedom of movement when the little one begins to creep and walk. If such is still needed, it is an excellent plan to double it straight and put it on like drawers, lapping the edges at each side to fit, and fastening securely with safety pins. This plan affords the little one ample freedom to exercise its limbs, and is so much more convenient in the training to tidy habits that a trial brings it at once into favour.

Drawers may be made to wear over the diaper and buttoned on the sides as shown in the illustration, or sewed together for use after the diaper is dispensed with. In either case, they should be buttoned to the knitted waist.

THE PRINCESS UNDERSKIRT.

In cold weather, additional warmth for the limbs must be supplied by leggings, leglet drawers or tights.

Underskirts, whether one or more be needed, as determined by the weather, are preferably made after the simple princess

THE TOILET COMPLETE.

A SERVICEABLE DRESS.

THE CREEPING APRON.

model. A skirt sewed to a waist is not objectionable when care is taken, through the making of frequent changes, that the waist never becomes tight. Whether or not the skirt demands sleeves, depends upon the season and other garments worn. It should be borne in mind that the arms require to be as warmly clad as other portions of the body. The admiring mother should not yield to the temptation to leave either the baby's plump arms or legs bare in ordinary weather. Chilling is far more apt to occur when only a portion is uncovered than when the whole body is exposed.

To complete the foot covering, shoes of soft kid are required. Their shape should be that of the child's foot with soles sufficiently broad not to cramp or misshape the little member, the tissues of which are so soft that deforming the foot by improper shoes is a very easy matter.

So many pretty and suitable designs for the outer dress are in vogue that there is ample room for choice. The little overalls are especially simple and convenient to launder. Round, square and pointed yokes with full skirts gathered thereon make very dainty garments for the first short dress. When the little one begins to walk and climb about, the fulness of the skirt is, however, likely to be in its way. For this period a simple and very serviceable little dress may be made as illustrated in the accompanying cut. Such dresses, cut from an ordinary sacque apron pattern, are easily made, easily washed and ironed, and may be given a variety of effects by differently trimmed and shaped collars.

Another very serviceable article for the baby's wardrobe is a creeping apron, so made as to confine all the other clothing. Openings for the legs with bands to fasten just below the knee, give the necessary freedom of movement.

The wise mother will choose more durable materials for the short dress of the creeping, climbing, rollicking baby than was needed for its first tiny garments. Only such fabrics as can be washed are suited to the purpose. If the washing is a matter of consideration, as it is with many mothers, then it is wisdom to choose materials of soft colours for every day use rather than white, which, although so fitting and beautiful, necessitates too great an amount of time and labour to keep the little one freshly and cleanly clothed. Besides, the baby garbed in white, is likely to be prohibited the free use of its powers from fear of soiling its clothes.

From ten to twelve dresses are none too many to provide for the little one's probable needs. Inexpensive materials such as soft ginghams, seersuckers and cambrics are well suited for common use. The baby's dress, like the frame of a lovely picture, should serve merely as a setting for the real gem. Let, therefore, healthfulness, suitability and simplicity characterise all the little one's garments.

"OH, mamma, come quick!" cried little Bess, who had never before seen her small brother do anything but crawl. "Come quick, mamma! Baby is standing on his hind legs."—*Sel.*

THE WASTE AND REPAIR OF THE BODY.

BY ALEXANDER BRYCE, M.D., D.P.H., CAMB.

No more difficult nor abstruse subject has ever occupied the attention of the physiologist than that which deals with the growth of the human frame. Earnest, scientific men have spent and are spending their whole lives in attempting to solve the problem—a problem which is at least in its highest aspect perfectly insoluble, as only when the very essence of life itself has been discovered can we expect a complete answer to the question. Still much has been done to elucidate the mystery; much which is daily bearing fruit in improved methods of healing; and, if I can only succeed in enabling the readers of GOOD HEALTH to obtain an intelligent appreciation of what we know, their interest in maintaining their own health will be deepened, and they will be able to assist in hastening that great and glorious day when man shall know himself. The name which has been applied to the ultimate life processes of the body by the scientist is metabolism—a word compounded of two Greek words meaning to "throw beyond," but whose significance may shortly be explained as an exchange of material. It refers to the act or process by which on the one hand the dead food is built up into living matter, and by which on the other hand the living matter is broken down into simpler products within the cells of the tissues, and it covers the whole ground from the entry of food and drink into the mouth, and air into the lungs, till their excretion by the skin, lungs, kidneys, liver and bowels. It is, however, usual to confine the word to the actual changes which take place between the blood on the one hand and the ultimate elements of the tissues on the other hand.

To rightly comprehend the details of this process it will be necessary to properly realise the essential nature of the tissues. Reduced to their ultimate elements these are simply conglomerations, or rather aggregations of cells surrounded by tiny blood-vessels. The ordinary prison cell is familiar, by description at least, to most of my readers and consists of a bare apartment with four walls bounded on one or more sides by a corridor. A door in one of the sides serves the purpose of an air inlet and outlet, and its contents are practically air and a prisoner. In like manner the cells of the tissues are bounded by a wall which may be circular, oblong, elliptical, quadrangular or other varied shapes, and its contents are a substance called protoplasm and a prisoner in the shape of a nucleus, which is really the most important part of the cell. As a rule it has no outlet or inlet, for the whole wall is porous, so that it can absorb the materials for carrying on its life processes, and in the same fashion expel its waste products.

It is usual to call the protoplasm of the human cell by the name of bioplasm, the former term being also applicable to the contents of vegetable cells. The peculiar feature is that every tissue in the body is composed of cells which originally were alike, but in the process of development have become specialised into a consistency and shape necessary for their localised work, and it is quite easy by microscopic examination to tell from what tissue and often from what precise locality any individual cell may have come. Just as the corridor round the prison cell supplies air and is the medium for the supply of food, so the blood-vessel called a capillary,—because it is finer than a hair—round the tissue cells conveys the food and oxygen for their nutrition. As this nutrition takes place by a union of the two—the food and oxygen—it is called combustion, or an oxidation process, and the elements in the blood may be compared to the fuel in a fire. The food we eat cannot be converted into this fuel until it has been masticated, insalivated, swallowed, digested, and absorbed into the blood, and upon the proper fulfilment of these functions, quite apart from the nature of the food, depends the capabilities of the fuel at the cell's disposal.

The ordinary fuel burned in our fires today has been prepared in the crust of the earth by a very elaborate process during the course of the world's history. Geologists tell us that it originated in the bog moss (which can still be seen in a Scottish or Irish peat moss), which grew luxuriantly for multitudes of years, that it was then

covered by the sea, which deposited its layers of sand and gravel, and after many other changes and considerable compression resulted in the formation of the concentrated carbonaceous deposit we now call coal. The original green plants which absorbed their carbon by the aid of the sunlight from the air are thus converted into the black coal so useful to us as fuel to-day.

Fortunately the plants which supply us with food do not require such a prolonged process for their change into our body fuel, but none the less is it necessary that these processes should be in no way hurried, but deliberately practised, so that the ultimate result should be a success. It is in this respect that Mr. Horace Fletcher's researches on mastication are of such profound import, as he has proved to a demonstration that practically all the digestive and absorptive functions are dependent on effectively chewing our food. Our food, then, having been absorbed into the blood, and become a constituent part of this fluid, is now brought as fuel by the circulation to be burned up in the tissues. The blood is then the fuel, but it is much more than the fuel, for it is the circulating medium both for the income and expenditure of the tissues. In order that you may more thoroughly understand the process let me change the simile to that of a banking account. Those of you who possess that desirable acquisition know that there are many means of swelling it. It does not matter whether you lodge with your banker cheques, postal orders, cash, bonds, bills, scrip or other well known bills of exchange, they are equally acceptable and converted by your banker into liquid assets, the raw material of which is the recognised circulating medium of the financial world. However large and unwieldy may have been the original source of your income, you have now no difficulty in dividing it into small sums, and apportioning it accurately to pay bills, and so satisfy your baker, your tailor, your shoemaker, etc.

It is precisely in the same way that the varied and bulky ingredients of the bodily income, the proteids, the fats, the carbohydrates, the salts, water and oxygen are converted into the blood, which is the circulating medium, nay, the liquid assets of the body. There is now no difficulty in apportioning to each individual tissue and cell the precise amount of nourishment required by it, because the circulation carries it to the remotest recesses of our body, so that each cell is bathed in the life-giving fluid.

And now comes the most remarkable of all the remarkable processes in our wonderful body, for each cell of each tissue is able to take from the blood practically the same substance in the proper proportions, and yet is able to convert these into its own peculiar substance, so that in the one case brain tissue, in the other bone, in another muscle, and in another nerve tissue is formed. It is a matter of everyday observation that some plants will grow on one soil and other plants on a different kind of soil; but here is a case in which from the same soil, the same nutrient fluid, the most diverse structures are capable of being formed. It is also a wonderful fact that from the blood, secreting glands whose cells are to all intents and purposes practically similar should evolve such varied products as tears, milk, saliva, etc. There is little doubt that when an explanation of these processes is possible the secret of life will have been solved.

In still further elucidation of this great problem let us revert to our former simile of a fire. The combustion of coals in a fireplace is productive of heat, which may be utilised simply to heat an apartment, or still further to produce steam which can be used for the evolution of energy. The waste matter from the coal drops through the bars of the grate in the form of ashes and the constant stoking necessary, together with the intense heat evolved ultimately wears out the structure of the grate itself. Should such a contingency take place then, a mechanic is called in who repairs the worn out parts or replaces them with new ones. Now in precisely the same way the tissue cells take up substances from the blood which is really the body fuel, but whilst in the case of the fireplace the coal always remains distinct and separate from the structure of the grate, in the case of the tissues the fuel is actually incorporated with the bioplasm of the cell, and becomes a part of itself. Combustion takes place—heat and energy are produced, and ashes or waste products are thrown off in the shape of water

carbonic acid, and nitrogenous products. But the special feature of the cell fireplace is the ability it has for repairing itself. There is no necessity for an outsider to interfere and add a new side or top or bottom, the whole thing is automatic and takes place by virtue of a vital process. There can be no question about the marvellous facts, although there is much controversy as to their explanation. So much is certain that so long as life exists these changes take place, and when death results they cease. We may talk about them as much as we please in terms of chemical equation, there must always remain the inexplicable mystery of life.

To carry our simile further, it is quite possible with a known quantity of coal to produce a known amount of energy which may be applied to the working of an engine. We will suppose that a measured amount of coal should produce twelve horse-power, and only succeeds in mounting up to six horse-power; the engineer at once sets about the discovery of the error. There made be a blocked flue, or an inferior grade of coal with an excess of ash, or some other discoverable and easily remediable defect.

In a precisely similar manner it is quite possible on a known quantity of food to estimate in any individual the amount of energy it should produce, and if this is not forthcoming to tell from the excreted waste products just where the defect takes place. This is one of the great advantages of living in a well regulated sanitarium where accurate investigations are possible. The excretions of the activity of the cells pass off through the kidneys, the skin, the bowels, the lungs, and are incorporated in the soil and in the air. In course of time they are taken up by plants, and these again by animals which again excrete them, and so on the great revolution goes,— another proof of the indestructibility of matter. Evolution from the soil into an animal and devolution from the animal, the possessor of life, back again into the presumably dead and certainly inanimate soil.

It will thus be seen that there are two processes involved in the functions of metabolism.

1. A building up of the bioplasm or assimilation, technically called anabolism.

2. Breaking down of the bioplasm or dis-assimilation, technically called katabolism. If these exactly balance each other then equilibrium takes place—a happy condition only known in careful living people. Happy because when equilibrium is established no energy is wasted in digesting more food than is required, and no clogging of the system results in storing up fat which is not required. When assimilation is in excess then fat is laid on, when dis-assimilation takes place in excess then fat and flesh are lost.

The determining factors in the process are:—

1. The amount of pabulum supplied. There must be an efficient supply in the blood, and when there is it does not matter whether it comes from the animal or vegetable kingdom, the results on nutrition ought to be the same.

Now I am aware that much controversy has raged and is raging round this very problem at the present moment, but even the most bigoted flesh eater would admit that once the albumens enter the blood, they are equally capable of nourishing the tissue. I dare not say as much for the fleshless eater who is absolutely convinced that animal albumens can never build up a sound and healthy body. Anyone possessed of an unbiassed judgment, however, must agree with the flesh-eater's view, however much he may be inclined to the opinion that the waste matters introduced with the animal albumens are detrimental to the best interests of the body. On the other hand it is asserted that "the nitrogenous matter obtained from vegetables is less easily digested than that which is of animal origin; a much larger percentage passing from the alimentary tract unutilised. Few persons live entirely upon a vegetable diet. Those who attempt it lose vigour, and show languor and disinclination for physical and mental work. They become less able to resist disease. Because a vegetable diet is an economical one, it has sometimes been forced upon bodies of labourers, but uniformly the decrease in the amount of work that they are able to perform more than counterbalances the decreased expense of their food. In vegetables enough proteid can be found to make it possible to substitute them for meat for the purpose of maintaining life and strength. As vegetable proteid is very imperfectly digested and absorbed, a sufficient vege-

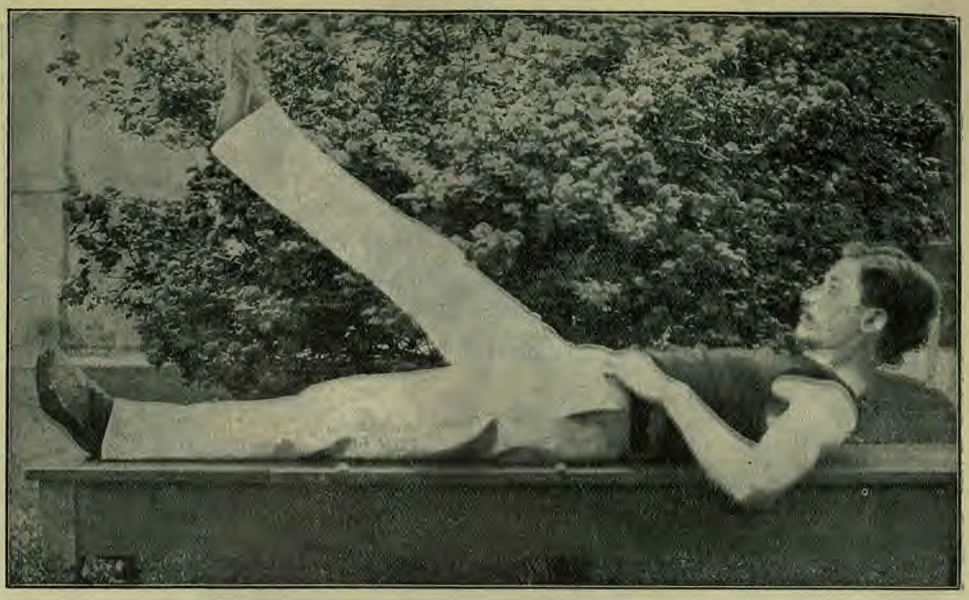


FIG. 1. EXERCISE (*g*). HEAD AND LEG-RAISING.

table diet must be a very bulky one. It will maintain strength, and by eating vegetable food only, one may be able to lift as much; but he will not be able to work so fast as on a mixed diet. He will lack energy and alertness. It is quite evident from man's anatomic structure, physiologic functions, and habits of eating, handed down from earliest times, that a mixed diet is best adapted to his needs. At the same time it is unquestionably true that too much meat is ordinarily eaten by many individuals."

Now I have quoted this paragraph word for word from "Dietotherapy and Food in Health," (G. Davis in the "Physiologic Therapeutics" series,) to indicate what is the position of the orthodox medical practitioner of the present day on this great subject. And this in face of the vast accumulation of evidence which is lying to hand, that great masses of the people live on the very diet we are told is unsuitable and incapable of giving the best results in daily life.

I am personally acquainted with many people who live on a purely vegetable diet, *i e.*, fruits, nuts, and cereals, and I only wish I possessed their physical and mental vigour and energy. On the other hand such people are few as compared with the increasing number of those who, whilst fleshless eaters, yet include such products of the animal kingdom as eggs, milk, cheese, and the many milk proteids now on the market.

No one dare gainsay the fact that the highest degree of physical and mental health can be maintained on such a diet, and that it is infinitely more suitable than a mixed diet, for a great proportion if not all the people amongst present town dwellers. It is also certain that where special means are taken to properly cook vegetarian foods, and even to concentrate some of their albuminous products such as is found in protose and gluten, that many of the defects attaching to this class of food are done away with. It is only fair to add that the above author goes on to say that "often a change from a generous mixed diet to a so-called vegetarian regimen improves the health of individuals. It does this by correcting bad habits, such as eating too much, eating rich foods, drinking too little, and by removing such pathologic states as constipation. A radical dietetic change usually diminishes a person's appetite, for fewer things that he enjoys are placed before him. The vegetable, fruits, and cooked cereals contain a larger amount of water than may otherwise be obtained, the coarser cereals such as brown bread and fruits as well as the increased supply of water, help to provoke more regular and copious bowel movement."

(*To be continued.*)

FIG. 2. EXERCISE (*h*). TRUNK ROTATION.

EXERCISES FOR THE WAIST MUSCLES.

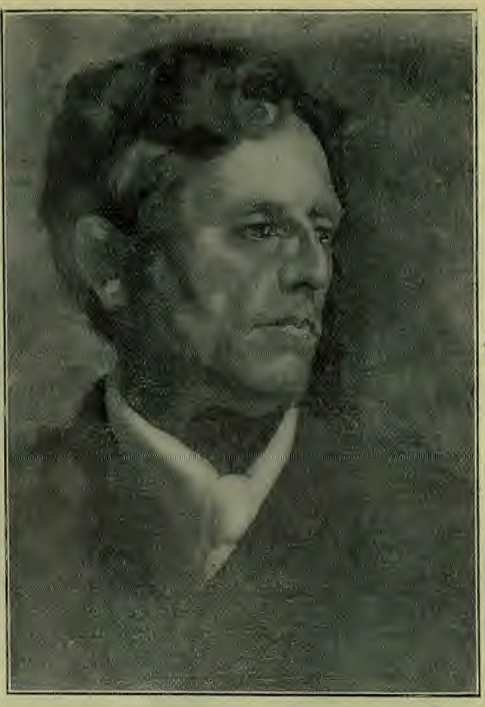
BY J. W. HOPKINS.

SYSTEMATIC training of the side and front muscles of the trunk more directly affects the state of health than do any other class of exercises in the Swedish system. These divisions of the day's order are known as Abdominal Movements and Lateral Trunk Exercises.

Abdominal movements are exercises which cause the muscles of the abdomen to contract and relax. A few good exercises classified according to the strength of the movement are as follows: (*a*) Lying, head-raising; (*b*) stretch-lying, alternate knee flexion with leg extension; (*c*) rest-lying, alternate leg-raising; (*d*) wing-knee-standing, trunk flexion backward; (*e*) wing-foot-support-sitting, trunk flexion backward; (*f*) rest-lying, 2-knee flexion with 2-leg extension; (*g*) lying, head and leg-raising; (*h*) rest-fall-foot-support-sitting, trunk-rotation.

These are described as follows; (*a*) lying on the back, with the hands placed on the hips, raise the head as far as possible without raising the shoulders or cramping the chest. Count six while raising the head, and the same while lowering it. Figure 1 illustrates this movement of the head. (*b*) Lying on the back with the arms stretched over the head, grasping, if possible, the legs of a chair or some other support: 1, Bend the left knee, bringing it well above the abdomen; 2, extend the leg upward, toe pointing upward; 3, lower the leg, keeping the knee straight. Figure 3. (*c*) Lying on the back with the hands clasped behind the head and the elbows pressed to the floor, raise the legs alternately. (*d*) With the hands on the hips, kneel. In this position bend backward several times. (*e*) Sitting with the hands on the hips, support the feet under the edge of the bed, bureau, or bookcase. Bend backward, then raise the body. (*f*) Lying on the back with the hands clasped behind the head; 1, Bend both knees as in exercise (*b*); 2, extend the legs upward, until they are straight; 3, keeping the legs straight, let them return to position, resting on the floor or bed. (*g*) Lie on the back with the arms at the side. Raise the head and left leg. Count five while raising the head and leg, and the same while lowering them. After the patient is sufficiently strong, both legs may be raised with the head. (*h*) Sit with the hands clasped behind the head, and the feet supported as in (*e*). Bend backward about forty-five degrees; then, holding the body straight, twist alternately to left and right. See Figure 2.

In all abdominal exercises the chest must be lifted and the ribs fixed before the movement is taken. If the chest is thus arched, the compression of the abdomen begins below, and the viscera are moved upward, thus being restored to their natural position. But if the chest is not arched and the ribs fixed, the upper part of the abdomen is flattened and the stomach and bowels are pressed downward.



So it is well to combine all these movements with breathing exercises. For instance, in Exercise (*g*) first take a deep breath, then raise the legs and lower them again before breathing out. Repeat the exercise, alternating deep breathing with each movement. In exercise (*d*) take a deep breath before bending backward, and after reaching the reclining position empty the lungs and fill them again before lifting the body.

These abdominal exercises have a direct influence upon the circulation. With each contraction of the muscles of the abdomen the viscera are subjected to strong pressure, and this forces the blood out of them and also out of the abdominal cavity into the limbs. When the muscles relax, and the pressure is removed, the reverse takes place, the blood flowing back, so that the tone and strength of the digestive organs, are greatly improved by a course of these progressive gymnastics.

A RECORD WALK.

THE accompanying photograph of George H. Allen was taken a couple of days after his record walk from Land's End, to John O'Groats. The distance of about 900 miles was covered in less than seventeen working days.

Mr. Allen has been a staunch vegetarian for six years, and while walking his diet consisted of bread and butter, poached eggs, potatoes, greens, salads, rice and fruit.

On such a pure, nourishing diet he made the walk with ease, and felt fresh and fit at the end. Surely this achievement demonstrates beyond any doubt that both strength and endurance can be had from a non-flesh diet.

FIG. 3. KNEE-BENDING FOR LEG-EXTENSION UPWARD.

THE SPRING BILL OF FARE.

BY M. ELLSWORTH OLSEN.

As cold weather gradually merges into the milder days of early spring it is well to make corresponding changes in the diet.

The spring bill of fare should be rich in fruits and simply-cooked vegetables. Oranges are fairly abundant at this season of the year, and their free use will save doctors' bills. They may be eaten to best advantage immediately on rising in the morning, and again before retiring at night. Two or three sweet, juicy oranges might well take the place of the supper which is often eaten at nine or ten o'clock in the evening. The result would be more refreshing sleep, and a better appetite for breakfast.

Apples are also to be highly recommended; stewed Californian prunes, raisins, figs, and other dried fruits are timely, and may be had at a reasonable figure. The tinned fruits, such as peaches, apricots and pears, if of a reliable brand, may be taken without fear, and will help to give a pleasing variety. Such fruits should always be removed from the tin immediately after opening.

Breakfast is the meal at which fruit naturally seems most grateful. For persons who have not heavy work to do, a very light morning meal composed principally of good wholemeal bread and butter and fruit is quite the ideal thing. Fruit toast, made by pouring over pieces of zwieback any fruit juice heated to the boiling point and slightly thickened with cornflour, makes a good warm dish.

At dinner vegetables naturally occupy an important place. As the fresh vegetables come into the market, they are of course the best; but tinned peas, French beans and tomatoes are very good substitutes.

Flesh meats, even if they are indulged in during the winter may well be laid aside in the spring, or at least used very sparingly, for they contain excrementitious wastes which clog the system, and interfere with that feeling of buoyant well-being which is the object of healthful living to cultivate.

The following recipes will at least prove suggestive:—

RECIPES.

Scalloped Tomatoes.—Rub one tin of tomatoes through the colander; season with a tablespoonful of nut butter (rubbed smooth in a little water) and salt to taste. Stir in three small cups of zwieback crumbs, and bake for half an hour.

Green Peas.—Simmer a tin of green peas gently till the liquid has nearly all evaporated; then add a pint of rich milk and cook a little longer. If sterilised milk is used, there will be no danger of its turning.

French Beans.—Heat a tin of French beans to boiling point, add salt to taste, and serve with plain white sauce.

Cherry Soup.—Add to a jar of stoned cherries 1½ pints of water, bring to a boil, and thicken slightly with cornflour. Add sugar to taste, and serve hot. If the cherries are not very juicy a little lemon juice may be added.

Scalloped Potatoes.—Pare the potatoes and slice thin; put them in layers in an earthen pudding dish, dredge each layer lightly with flour, and salt, and pour over all enough good, rich milk to cover well. Cover and bake rather slowly till tender, removing the cover just long enough before the potatoes are done to brown nicely. If preferred, a little less milk may be used, and a cup of nut cream added when the potatoes are nearly done.

Steamed Turnips.—Select turnips of uniform size, wash, pare, and steam rapidly till they can be easily pierced with a fork; mash, or serve with lemon juice or cream sauce, as desired.

Golden Salad.—Prepare eggs by hard boiling them. Cut when done, into two parts; remove the yolks without breaking the whites, mash them and mix with enough mayonnaise or boiled salad dressing to bind them. Fill the egg-white shells with the prepared yolks, and stick the two half whites together, thus forming whole eggs. Cut

one end flat, and stand an egg on a lettuce leaf on each salad plate. Around each egg put a circle of mayonnaise.

To Make Lemonade Without Sugar.—Place the juice of the required number of lemons in a jug, and to every two parts of boiling water used add one part of the juice of any naturally sweet stewed fruit, such as figs, prunes, dates, etc. This is more wholesome than using large quantities of sugar, as is usually done, which only hides the acidity of the lemon to the taste, and does not destroy it, and merely leaves an excessive quantity of artificial sugar upon the system which is distinctly harmful and clogging, especially when suffering from a cold. G. G.

DINNER.

Soup—Delecate.
Baked Tomatoes.
Green Peas and Braized Potatoes.
Granose Biscuits and Butter.
Lettuce.
Fruit and Natural Lemon Squash.

Baked Tomatoes.—Take some large round tomatoes, cut a hole in the top of each one and scoop out a little of the pulp, then with that make a forcemeat by adding a finely chopped onion and a little parsley, a cupful of avenola, a little boiled rice, a beaten egg, with salt to taste. Mix well together, and stuff tomatoes. Replace the tops, and place in baking dish, and bake in a moderate oven one hour. Serve with braized potatoes and green peas.

Delecate Soup.—Take half a cup of white rice; wash and boil in a quart of water one and a half hours. Strain, and add four tablespoonfuls of thick cream with salt to taste. If desired, a little Plasmon may be added just before serving.
MRS. A. H. WARREN.

WHEN BABY CUTS HIS TEETH.

BY MRS. EULALIA SISLEY-RICHARDS, M.D.

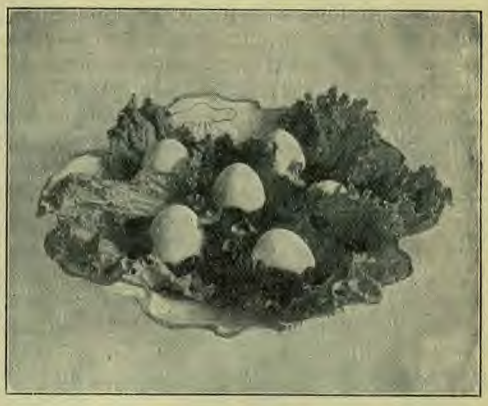
AFTER the baby reaches the age of six or seven months, it makes little difference what ails him, the fact that he is teething or about to teeth is generally given full credit for his indisposition.

The average young mother looks forward to this time with dread. Her mind is harassed with visions of tedious days and sleepless nights when a fretful infant must be held in arms or carried wearily across the floor until her limbs grow heavy and her heart distressed.

Many mothers seem to believe that the process of teething must necessarily disturb a baby's constitution something as an earthquake or a volcanic eruption disturbs the course of nature. But this is in no wise true, at least, it need not be true.

Teething is an entirely physiological process, and in a healthy child should be attended with no more disturbance than any other natural function of the body. It is the sickly, ill-fed, ill-attended child that falls prey to serious troubles at this time.

The first set of teeth, or the milk teeth, as they are called, usually begin to appear about the seventh month, in some cases a little earlier, in others later. For three or four months previous to this time there is a noticeable increase in the flow of saliva, which indicates that nature is preparing



GOLDEN SALAD.

for the time when, after the advent of the teeth starchy foods will be taken by the little one. Also for a time before the appearance of the teeth the gums grow broader and somewhat more prominent, but in healthy children they do not become red or inflamed.

The two central teeth of the lower jaw are usually the first to appear, then after a few weeks the corresponding teeth of the upper jaw. The teeth are cut in distinct groups with a pause of several weeks or even months between the eruption of each group.

It is not necessary for the mother to know their exact order of appearance, but she should know that a baby one year old should have at least six teeth (and possibly twelve if the third group is promptly cut) and that by the time he is two or two and a half years old, his teeth should number twenty, which completes the temporary set.

Should a baby reach the age of one year without a single tooth, his mother should consult a physician, as this delay in dentition often indicates rickets, and special diet and judicious management are required in such cases.

Troubles Incident to Teething.

The healthy baby will cut his teeth without serious trouble. He may be a little restless, and may not take his food quite so enthusiastically as usual, but these are not alarming symptoms. In fact during teething time it is well to take particular care that baby's digestion is not disturbed by over feeding. See also that his bowels move regularly, and that his extremities are kept warm.

If he manifests a desire to bite something, there is no harm in allowing him to have an ivory ring, provided it is kept scrupulously clean, and not permitted to fall about the floor. It might be better, however, to let baby bite on a plain, hard biscuit. This should be of such a nature that it will not break easily, as it is not desirable that the biscuit be actually eaten. It would certainly be unwise to allow a baby to be biting something constantly. A biscuit might be given him for a few minutes just before feeding and then should a wee bit of it be swallowed it would not disturb his stomach as though taken between meals.

Should the little one seem fretful at bedtime a warm sponge bath is often refreshing and ensures a restful night.

The baby who has always been sickly will be fortunate if he passes through the teething time "without troubles of his own." In such a child, indigestion and diarrhœa are apt to occur at this time. To prevent this, extreme care must be taken with the food. Attention must be given to the first sign of indigestion. Withhold food for one or two feedings, giving an abundance of plain water to drink, that the stomach and bowels may be freed from undigested and irritating food substances.

Then give food again, carefully prepared, in moderate quantity, and not too frequently. Examine baby's mouth from time to time, and if the gum is red, swollen, and very tender it may be necessary to have the doctor lance it, in order to relieve these symptoms and make way for the tooth.

Occasionally convulsions occur during teething, usually a hot bath with cold compresses to the head bring speedy relief. A *word of caution* should be spoken to mothers. Do not fall into the error of believing that every ailment of babyhood is simply a necessary accompaniment of teething. More than one mother has allowed disease to gain a fatal foothold in her little one, comforting herself with this thought: "Of course he is miserable because he is teething, but he will soon be all right."

Remember that the tiny life may easily be extinguished, and do not allow serious disorders to pass unnoticed simply because baby is teething. The trouble may be due to teething, but the chances are that it is in no way connected with it—and perhaps prompt and vigorous measures may be needed to save the little life.

The milk teeth remain in position for several years, until the permanent teeth push upward in the jaw beneath them. The roots of these first teeth are then partially or entirely absorbed so that they loosen and fall out, making room for their successors. These second teeth make their appearance in much the same order as the first, several months often intervening between the eruption of each group. There are thirty-two teeth in this permanent set, this number not being complete, however, until from the eighteenth to the twenty-fifth year of life.

The Care of the Teeth.

Every mother owes it to her child to give his teeth proper attention until he is old enough to care for them himself.

Many think it makes no difference if the milk teeth decay, since they will soon fall out in any case. But *it does make a difference and the first teeth, as well as the second, should be carefully cleansed daily.*

At first, when there are only a few teeth, morning and evening they should be thoroughly rubbed with a soft linen cloth, moistened either with water or boric acid solution. Later, when the temporary set is complete, a soft tooth-brush should be used twice daily. As soon as possible teach the little one to use the brush for himself—and *see that he does use it regularly.* To obtain this result will doubtless require patient perseverance, but the loving, tactful mother will, however, find a way of bringing it about.

It is not always necessary to use a

dentifrice, but occasionally a plain chalk powder, or prepared chalk and orris root with oil of cinnamon or other suitable flavouring may be used to advantage.

Should an accumulation of tartar appear upon the teeth, a soft stick may be moistened, dipped in finely powdered pumice stone and rubbed upon the spots until they are removed.

Let it be remembered that the teeth, in order to be healthy, must be used. So give the little folks, every day, something wholesome, hard and dry, which will furnish the teeth with the exercise they need. Zwieback is admirable for this purpose.

Occasionally the milk teeth are tardy in making way for the permanent ones. Consequently the latter are compelled to push their way into the mouth in a most irregular and distressing fashion. If such a result threatens it would be best to take the child to a dentist in order to gain his advice and his assistance if necessary.

In fact it is well to establish the rule of taking the children to the dentist every six months, just to have their teeth examined. Should a cavity or any other trouble be discovered it could receive prompt attention, and thus much pain and discomfort, which too often multiplies by delay, might be saved.

JAPANESE COAL HEAVERS.*

BY E. E. ADAMS.

AT the present time there is much interest in things Japanese. There is also considerable agitation over the question of a vegetarian dietary.

A glance at the Japanese wrestlers of Tokio, whose size and strength have been developed without the use of flesh food; or at the joyful little rice-eating coalers of Nagasaki, would solve this problem in a moment.

The coaling at Nagasaki is a most interesting proceeding to a visitor. This Japanese seaport is filled with dockyards and repair shops, and is visited by ships of all nations, for repairs and coal supplies. As soon as a steamer arrives, broad planks are arranged up each side of the ship by the nimble Japs, and on these they stand in line while a stream of baskets filled with coal passes from hand to hand, from the coolies in the lighter shovelling the coal into the baskets, to the last man, who empties it over the bunkers' mouths. Women and boys assist in the work, which is carried on with zeal and unflagging energy and enlivened with chatting and chanting.

The incredible speed with which they work, enables the Japanese coolies, working by hand in this way, to coal vessels much more rapidly than it has ever been done by steam power, overhead machinery, and elevated tracks for coal cars. A visitor to Nagasaki writes:—

"Three years ago, after an eleven days' detention in quarantine here, my ship was brought into the harbour at 7 in the evening. In half an hour the work had begun, and, notwithstanding a deluge of rain at 10 o'clock, coaling never flagged until 1 o'clock in the morning. In that time 1,550 tons had been put aboard, and the lighters swung away with all crews cheering joyfully, for the coal company had promised them forty-eight hours' holiday, free baths and saki, if they would get the quarantine steamer away quickly.

"Since then 1,210 tons have been put aboard ship in three and a half hours. This rate of 372 tons an hour was the marvel of the initiated until this spring, when 420 tons an hour went to the credit of the cheerful, joyful little Nagasaki coal-passers. At this last record-breaking performance 2,100 tons were put aboard in five and a half hours, during which time each gang had a half-hour's rest for their mid-day meal."

The diet of these indefatigable and cheerful workers consists almost exclusively of rice. Among country folk this is supplemented by beans, peas, millet and barley. Pickled and salted relishes are used with the rice to give it flavour, and salt fish is also used for seasoning; but the staple article of dietary is the Japanese rice, more solid and glutinous than the Chinese variety, which is much cheaper. For a lighter meal, the coolie classes make use of soba, a macaroni made of buckwheat.

All day long, and often at night also, the Nagasaki harbour rings with the chant and laughter of these healthy, capable workers, who have been designated as "probably the happiest and most contented poor that one may find in the world."

* See frontispiece.

A CHAT WITH INVALIDS.

BY M. ELLSWORTH OLSEN.

THERE are two kinds of invalids—curable and incurable. Fortunately the former class is by far the most numerous. Probably nine-tenths of the world's invalids could under proper treatment either completely recover, or at least attain such a degree of health and vigour as not any longer to merit the name of invalid.

The comparatively small class of incurables, *i.e.*, of persons suffering from disorders of an aggravated character which defy successful treatment, can still greatly lessen the tedium of confinement, and increase, their own happiness as well as that of their friends by a course of

Self Treatment.

Needless to say, this treatment is largely mental. First, cultivate hope. Medical knowledge is by no means absolute. Recovery has occurred in so-called hopeless cases. But don't rest satisfied with hoping for physical improvement or final recovery.

There is an even more vitalising hope, namely that of being of use in the world. Pain often sours the disposition, and gives a harsh, gloomy, despondent cast to the whole mental experience. But it need not so affect a person. There have been invalids from whose bedsides streams of blessings have flowed out to a sin-sick, suffering world. Self-mastery, the spiritual conquest over rebellious aches and pains, may fit one for peculiar usefulness. Some of the best and noblest work that has ever seen light has been done by invalids. Hands trembling with pain and fatigue have penned lines which have been a very *elixir of life* to countless thousands of weary, discouraged souls. Men have stood in the desk uttering winged words of comfort and guidance when so weak that they could scarcely keep their feet.

Hero Invalids.

In the realm of action as well as of words, we find our hero invalids, prolonging their own lives and increasing their happiness by their self-forgetful labours for a dying world. The late Dr. Finsen, of Copenhagen, was such an invalid. His magnificent researches resulting in the discovery of the light cure for lupus were all prosecuted under the clouds of a mortal malady. While striving to heal others, he himself was daily suffering extreme pain and weakness, walking as it were on the very edge of the grave. When he finally succumbed to the inevitable, it was with the joyous consciousness of having, by his arduous labours, contributed very materially to the health and happiness of his fellow men. In doing this he also probably lengthened out his own life, for the disease of which he finally died usually proves fatal within a much shorter period than it did in his case.

So much for the incurables, whose number is comparatively small, but whose case is not as desperate as one might think. Fortunately the vast majority of invalids can look forward with a good degree of certainty to very materially bettering their condition. Much will depend upon their mental attitude. Cheerful determination to get well, persisted in through every changing phase of the disease, has in itself healing power of the highest kind. But it should be combined with

Rational Physical Culture.

Must the invalid be a physical culturist?—certainly, and a patient, persistent one. Of course the instructions of the physician who may have charge of your case should be conscientiously carried out. Nothing should be done which he may consider harmful. Nevertheless there are many simple exercises which may be taken in bed, or if one is able occasionally to be up, in one's room, which will greatly facilitate recovery.

Strength comes from using the muscles. Not only do the muscles themselves become stronger by exercise, but the nervous system is strengthened, the heart and the other organs of the body get new tone, the circulation is quickened, and the appetite improved, and the whole mental atmosphere materially brightened. Let the chronic invalid begin systematically to use the muscles simply of the arms, hands and chest, doing just a little more each day, and the gain will be almost immediate. It matters not very much what the nature of the movements may be. Some very

good ones may be found in back copies of GOOD HEALTH; others will be given in forthcoming numbers. Each invalid will need to select such as are most suitable, and in the absence of these, a little ingenuity will invent others. The effort of mind required to devise exercises and put them into operation, will in itself have a favourable effect. After all, the invalid must *work out her own salvation*; recovery will depend more on her attitude and the extent to which she heartily co-operates with nature than upon anything the doctor may do for her.

Deep breathing is a form of exercise that even very weak invalids may practise, and always to great advantage. Half a dozen long, deep breaths taken three or four times a day will often increase the vitality to a degree scarcely believable. Straining should be carefully avoided, but as much spirit and life should be put into the movements as possible. Fill every nook and corner of the lungs with pure fresh air, then slowly expire, keeping the windows open meanwhile to ensure an abundant supply of the life-giving oxygen.

Invalids able to be out-of-doors should exercise this privilege to the utmost. There is health in the open-air which cannot be found in the best ventilated house. Cultivate a love for nature in all her moods. Never stay in-doors because of the weather. Dress warmly, yet not too warmly, and get out. Walk briskly, taking long deep breaths. It is often well to observe a certain rhythm between the steps and the breaths. Take ten steps while inspiring, and eight while expiring, and breathe as evenly as possible. Of course keep the chest well to the front and the head erect so that there may be no hindrance to the fullest lung expansion.

Some things the invalid must avoid, notably the habit of thinking about his symtoms, and letting the mind dwell on aches and pains. Health never comes through thinking of disease. If you wish to be an invalid always, this is a pretty sure way of having your wish fulfilled. Of course one way to avoid thinking of disease is to quit talking about it. If your friends broach the subject, give the conversation another turn at once, or speak briefly of your *improvement*—of some encouraging feature. The only individual to whom you should ever state your exact symptoms is your doctor, and then only as far as is necessary to answer his questions. As a general rule, the less you tell him, the more he will know about your case.

Let the mind expand with love and regard for others. There is much suffering in the world. You may not have more than your share, and if you relate yourself rightly to it, the result in the long run must be beneficial. Such is the decree of a kind Providence.

Don't forget that healthy people have their troubles, too. Those who are waiting on you day by day may be as much in need of love and sympathy as you feel yourself to be. Keep this important fact in mind, and it will sweeten your relations wonderfully. Moreover, you will gain much in the more efficient care received. For it is a well established fact that no human being can do his best except in a reasonably sympathetic environment. If your nurse feels that you understand and sympathise with her, she is then in a condition to do for you far more than she possibly could do under other circumstances even with the best of intentions.

Finally, be radiantly hopeful; look on the bright side of things; note every sign of improvement in your condition, and be quick to make the most of it. Remember that an invalid by making wise use of limited strength may often accomplish far more than a strong, healthy person. Life may yet have many bright experiences for you. Therefore get ready to enjoy them by making the most of present opportunities. Cultivate healthy thoughts and sentiments and they will in time under the Divine blessing, ripen into a blessed harvest of physical health.

Bobby.—"Mamma, would it make any difference if the baby took all his medicine at once?"

The Baby's Mother.—"Heavens! Yes!"

Bobby.—"But it hasn't made any difference!"—*Life.*

* * *

"IT takes a good many things to make a home, and forethought is one of the indispensables—forethought, not merely for food and comfort, but for culture, recreation, employment, happiness."

QUESTIONS AND ANSWERS.

Our correspondents are requested to enclose a penny stamp with their questions, as it is often necessary to answer by post. No attention is paid to anonymous communications.

Boiled Water and Kidney Stone.—E. L.: —"I am in the habit of drinking water that has been boiled, but find that it is not as clear as unboiled water. 1. Does it contain more lime or solid substance? 2. Is the drinking of boiled water likely to cause the formation of minute calculi in the bladder or kidneys?"

Ans.—1. No. On the other hand boiling water reduces the amount of mineral matter. Distilled water is usually preferable to boiled water and is the purest water known. The Gem Supply Company furnish an excellent still at a moderate price, and the expense of running it is a mere trifle. 2. No.

Superfluous Hair.—M. T.: "1. Will you kindly give me your opinion as to the removal of superfluous hair on the face? 2. Would it be a permanent cure to have it removed by electricity?"

Ans.—1. Let it alone. 2. Yes, but the operation is a dangerous one except in the hands of an expert, and even then there is a chance of scarring.

Corns—Archibald's Oatmeal Cream—Whalebone Hair Brush.—H. L.: 1. "Kindly inform me what can be done for bad corns. 2. Can you recommend a vegetable cream for face use? 3. Is a whalebone hair brush too rough for the scalp? 4. Is enclosed quantity of hair too great a loss for one day?"

Ans.—1. Apply the following solution with a pointed piece of hard wood: one drachm of salicylic acid to one ounce of collodion. 2. We believe you will find Archibald's Oatmeal Cream satisfactory. 3. Yes; as a rule it is better to use a softer brush. 4. Yes.

Kneading the Stomach.—J D.; "I see that you recommend in GOOD HEALTH kneading of the stomach for indigestion. 1. How often do you recommend the kneading each day? 2. How long each time?"

Ans.—1. Two or three times each day, according to convenience. The kneading should be gentle and accompanied with stroking. 2. Five to fifteen minutes.

Spinal Curvature—Biliousness—Appendicitis.—"Mother": "1. Can anything be done for inward curvature of the spine in a girl of thirteen? 2. What is good for biliousness caused by the liver being out of order? 3. What is appendicitis?"

Ans.—1. Yes, as a rule. You should consult a physician who will give you directions for the treatment, which will probably consist of certain exercises combined with massage, manual Swedish movements, and similar procedures. 2. A fruit diet for two or three days with free water-drinking, and fomentations to the liver, or a hot liver pack daily for a week. 3. Appendicitis is an inflammation of the vermiform appendix. The latter is a small appendage attached to the beginning of the colon.

The Food Value of Linseed.—P. R. J.: "Kindly let me know through the correspondence column of GOOD HEALTH, 1. The food value of linseed. 2. Is it beneficial for indigestion? 3. In what form is it to be taken?"

Ans. We do not recommend linseed as a suitable food for human beings. As an infusion it is often used to relieve cough, or stimulate the action of the kidneys. Linseed oil is given for constipation, and is regarded as a mild laxative.

Ventilation of Rooms.—H. S. P.: "1. Kindly tell me how far a window should be left open in a bedroom. 2. Should it be closed when the weather is foggy?"

Ans.—If the room is comparatively small, and there is only one window, have it open from three to six inches, both top and bottom, during cold weather; at other times have it as wide open as possible. 2. No, but you can largely prevent the entrance of soot and particles of dust by fastening a double thickness of cheese cloth across the openings.

Infantile Rupture.—H.T.W.: "1. Please inform me what you consider the best treatment for rupture in a baby girl of two months? 2. Also please give particulars of the 'Home Hand-Book of Domestic Medicine.'"

Ans.—1. A cloth bandage or band properly applied is the best means of overcoming the difficulty. Your family physician will show you how it should be adjusted. 2. This book may be had from the Good Health Supply Department, 451 Holloway Road, London, N., cloth, 18/6, sheep, 22/6, levant morocco, 36/-, post free.

Weak Chest—A.H.: "Will you please let me know what is the best treatment for a weak chest?"

Ans. - Clothe yourself warmly, using woollen underwear, such as the Sanis. Adopt a systematic course of Physical Culture, and do exercises for ten or fifteen minutes three times a day. Breathing exercises are of particular importance, and could be taken even more frequently to advantage. See that your rooms are well supplied with fresh air, both day and night, and that your diet consists of plain, nourishing food.

Nervous Debility—Loss of Flesh.—W.J.C., Belfast: "1. What would you recommend for a young man greatly troubled with kidney disorder, nervous debility, and bad circulation of the blood? He is weak, has lost flesh, and is now melancholy. 2. Kindly state the diet that would suit him best."

Ans.—1. A course of tonic treatment at the Belfast Sanitarium, 343 Antrim Road. 2. Fruit, both fresh and stewed, dextrinised breads and biscuits, well-cooked grains, nuts, nut foods, and a few of the finer vegetables, and also cream and eggs if they agree with his stomach.

Good Health,

Illustrated Monthly Magazine Devoted to Hygiene and the Principles of Healthful Living

Edited by

ALFRED B. OLSEN, M.D.

M. ELLSWORTH OLSEN.

Editorial Contributor

GEORGE THOMASON, M.D.

Managing Editor:

M. ELLSWORTH OLSEN.

[The managing editor is responsible for all unsigned editorial matter]

Business communications should be addressed to **Good Health, 451 Holloway Road, London, N.**

All communications referring to editorial matters should be addressed to the Editor, GOOD HEALTH, 451, Holloway Road, London, N

Telegraphic Address: "Uprising," London

GOOD HEALTH may be ordered through any newsdealer.

The cost of a yearly subscription, post free, is 1/6.

Indian Edition: Yearly subscription, post free, Rs. 2. Indian office: GOOD HEALTH, 39/1 FREE SCHOOL ST., CALCUTTA.

West Indian Edition: Price, 3 cents per copy. West Indian Office: International Tract Society, Port of Spain, Trinidad; and Kingston, Jamaica.

S. African Edition: Office: 56 Roeland St., Cape Town, S. Africa.

April "Good Health" will contain a valuable article on the **Care of the Teeth** from the pen of Dr. J. J. Bell. He will discuss the cause of early decay of the teeth, and give advice how to prevent such decay. He will also show that the teeth as well as the muscles, require exercise in order to keep them in a healthy condition.

We publish this month the first instalment of Dr. Bryce's instructive article on the **"Waste and Repair of the Body."** This is a subject of great importance to all our readers, and we bespeak for the article a careful perusal. The author deals with the vital phenomena concerned in assimilation and disassimilation in a simple, lucid manner. His illustrations are apt and serve their purpose admirably. Next month we will publish the second part, after which two further instalments will appear completing the paper.

THAT there are a large number of impure, coloured, and highly-scented soaps on the market must be obvious to all our readers. Many of these are irritating to the skin and injurious to health. "Komplxshn" is a skin soap made from pure olive oil without any alkali, fatty substance, or colouring matter. The one object of the manufacturer has been to produce a perfectly pure soap that should not only be free from injurious substances but exert a healthful influence upon the skin and possess curative properties. A large tablet may be obtained post free by mentioning GOOD HEALTH, and sending five penny stamps to "Komplxshn," 48 Navarino Road, Hackney, London, N.E.

THE SCHOOL OF TO-DAY.

To the Editors of GOOD HEALTH:—

Sirs:—As an interested reader, I would venture some observations upon your excellent criticism of "The School of To-day" [January number]. Criticism can only be of value if the critic's ideals are lofty and his conclusions well premised; and the motto of your magazine is in this respect much expressed in little. Accepting that "education is the complete and harmonious development of the normal capacities of man" it is more than strange that the culture of the intellect should have so far dominated educational thought as to minimise its important correlative of physical education. The cult of the physical is the primary duty of the individual, for Spencer's words are true, that to be successful we must first be "good animals." In our criticisms of the system of elementary education at present existing, and in which many defects are to be observed, the appointed educators of our young life should receive our first attention. The majority of the elementary scholars of our country are under the direct influence of teachers whose chief qualification is a book knowledge of several abstract subjects combined with a proficiency in certain mechanical arts. They may elicit the answers that "the Equator is a menagerie lion running round the centre of the earth," and that air is mainly composed of two gases (oxygen and nitrogen) whose names chiefly suggest to the scholar a well-advertised form of beef extract (Oxo) and visions of some escapade in the dark. A cursory acquaintance with the various grades of elementary teachers would seem to reveal the fact that there is no professional or personal obligation to learn the elements of bodily and mental hygiene. The possession of a vaccination certificate and the necessary years is still the sole qualification of a large proportion of the elementary school teachers, and the higher grades of the profession (the "trained" and "certificated" teachers) have proportionately a minimum acquaintance with physiological and psychological principles. The crux of the failure of the common school of to-day appears to rest upon that part of our educational system which continues to regard the theoretical knowledge of an intellectual pabulum as sufficient to qualify any person for the proper and complete discharge of the duties of public educator. It cannot be expected that the physical education of the child will be accorded its important place in our school curricula so long as the teacher is unacquainted with the more simple facts of physiology and hygiene. In any reform of "the school of to-day" there must be the reform of the system which determines the qualification of the educator and recognises him accordingly.

"H. R."

The April number of "Good Health" will contain a timely article on "Spring Pick-me-ups." At this season of the year many people feel the need of a tonic of some kind, but do not know what to take. The article will contain practical advice in reference to this subject, and offer "pick-me-ups" that do really strengthen and lift up.

GOOD HEALTH will be sent to any country in the Universal Postal Union twelve months for the small sum of 1/6. There are doubtless many of our readers who have relatives and friends living abroad who would appreciate a year's subscription to the magazine. Send the name and full address with postal order or stamps for 1/6 and GOOD HEALTH will be sent promptly for a full year. Each number of the magazine contains thirty-two pages or 384 pages in a year. Considering the large size of the page this practically means a book of about 1,000 pages for only 1/6. GOOD HEALTH already enjoys a large subscription list which we should like to see doubled during the next few months.

The Breakfast should always be plain and simple, but substantial. A large variety of food is neither necessary nor desirable. A well-cooked porridge served with rich milk, brown bread and butter, zwieback, and fruit, both fresh and stewed, makes a very satisfactory meal. Most grains require from three to five hours of cooking, and this is often inconvenient if not impossible. But it is not necessary, for in Ralston Breakfast Food we have an article that can be prepared for the table in half an hour or less. It consists of granulated wheat, and is prepared from the whole grain, in such a way as to preserve all the good properties. Nothing whatever is added to the food. Wheat is the choicest of all the grains, and properly prepared, may well be considered the natural food of man. The proportion of albumen (the nitrogenous food) to starch in wheat is considered to be just what is required by the human body.

Ralston Breakfast Food has the double advantage of being not only pure and wholesome but also economical from a money standpoint. This is a great consideration and places the food within reach of all classes including the very poor.

Our readers can obtain a large sample sufficient o furnish breakfast for five or six people by mentioning GOOD HEALTH and sending two penny stamps to the Ralston Purina Co., 43 Great Tower Street, London, E.C.

For Falling Hair.—Walton's Petroleum Hair Lotion will remove scurf and dandruff and help to produce a fine head of hair. Perfectly safe, pleasantly perfumed. 2/- per bottle, post free. Address, S. A. WALTON, 190 Broadhurst Gardens, W. Hampstead, London, N.W. (Advt.)

Why Suffer with Catarrh?

Get the Magic Pocket Vapouriser; a simple, convenient, and effective instrument for the treatment of Catarrh, also diseases of the nose, throat, and lungs. **PRICE, 4/- POST FREE.** With attachment for treating the ear, 6/-.

When ordering ask for our free booklet telling all about Catarrh and Its Treatment.

GOOD HEALTH SUPPLY DEPARTMENT,
451 Holloway Road, London, N.

A Seaside Home.

Conducted on Food Reform principles.
Delightful location, near the chines, pleasure gardens, and town.
Highest recommendations.
Accommodations,—exceptional.
Charges,—moderate.

—o—

Write for terms mentioning GOOD HEALTH.

Mrs. Hutteman-Hume, "Loughtonhurst,"
West Cliff Gardens, Bournemouth.

Heide's Specialities.

Zwieback (Brown and White) a specially prepared predigested bread, invaluable to dyspeptics and invalids; used in the Battle Creek Sanitarium. 6d. per lb. Sample packet for 6d. in stamps.

Superior Health Biscuits. shortened with nuts.

Maker of Dr. Allinson's Wholemeal Bread.

Agent for all the foods of the International Health Association. Orders to the amount of 2s. and upwards delivered free in West London. Try **HEIDE'S HYGIENIC CAKE,** 10d. per lb. A triumph in healthful cake-making. Absolutely pure, free from chemical essences, etc. Agents wanted.

Address: **J. HEIDE,**
332 Portobello Rd., London, W

Walkerton Sanatorium, Leslie, Fife.

Special attention given to Diet and Exercise. Physician, John Haddon, M.A., M.D (late of Beeles, Manchester). For terms, apply to Mrs. Livingstone.

GOOD HEALTH LIBRARY.—No. 1, Biliousness; No. 2, The Food Value of Alcohol. One Penny each, or 1½d. post free. Both, post free, 2½d. No. 3, 100 Hygienic Recipes, 2d; post free, 2½d. Address, Good Health Supply Dept., 451 Holloway Road, London, N.

VOLUMES one and two of GOOD HEALTH are neatly bound in separate books, and with their large variety of illustrations and articles dealing with important health topics, make excellent books for reading and circulation.

Price, only 2/- each, postage, 4d. extra.

Order of Good Health Supply Department, 451 Holloway Road, London, N.

Have YOU Tried

BRUNAK?

Dr. Allinson's New Drink Instead of Tea or Coffee.

Dr. Allinson says:—

"BRUNAK is as refreshing as TEA; as tasty as COFFEE; as comforting as COCOA; and as harmless as WATER. Is as easily made as either of them, and can be taken at any meal or at supper time. There is not a headache in a barrel of it, and no nervousness in a ton of it. May be drunk by young and old, weak and strong, the brainy man or the athlete; also by invalids, even in diabetes."

All who suffer from Nervousness and Palpitation, Headache, Wakefulness, Loss of Memory, Low Spirits, Flushing, Trembling, and all who cannot or should not take tea, coffee, or cocoa, may take BRUNAK with perfect safety.

BRUNAK

is sold by Agents and usual Cash Chemists, Grocery and Co-operative Stores in 1 lb packets at 1s. each; or list of agents and sample post free, or a pound post free for 1s., by—

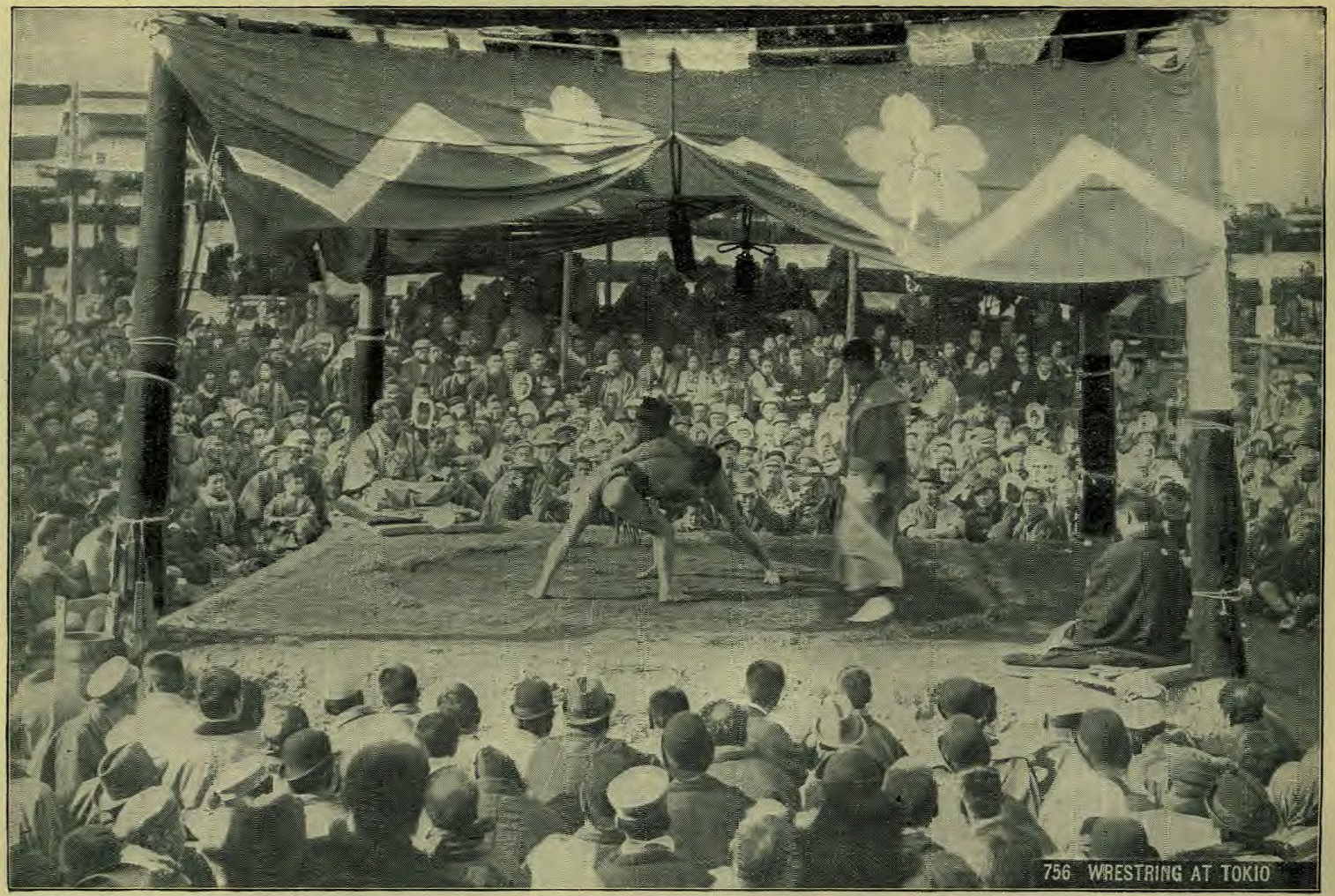
The NATURAL FOOD Co., Ltd.,
21 N, Patriot Sq., Bethnel Green, LONDON, E.

Vegetarian Cook required for house in the country, close to station, Hertfordshire, 22 miles from London. Apply A. B., c/o GOOD HEALTH, 451 Holloway Road, London, N.

The Temperance Record is a monthly review which contains valuable matter with regard to temperance reform problems. The January number is especially instructive, containing reports of the committees investigating the effects of drink upon the strength of the people of Great Britain; also the discussions of our foremost temperance advocates as to the best and most direct means of suppressing the use of intoxicating drink. Published by Richard James, 3 and 4 London House Yard, London, E.C. Price 1/-.

"*Balance in Diet*," a pamphlet by Alice Braithwaite, calls attention to the proper balance between acid and alkaline foods. Price twopence, post free. Published by the office of the *Scottish Health Reformer*, Meiklerings, Paisley.

"*The Food of the Future*" by E. W. Forward is a very interesting book published by George Bell & Sons, London, dealing with arguments in favour of vegetarian diet. The subject is considered with relation to tradition and the idealism of poets, ethics, and political, social, and domestic economy. It treats of the chemistry of foods, the endurance of vegetarians in general, and of athletes. The arguments are sound, and must appeal to all interested in diet reform. Price 1/-.



JAPANESE WRESTLERS.

Good Health

An Illustrated Monthly Magazine Devoted to Hygiene and the Principles of Healthful Living.

Entered at Stationers' Hall.

Vol. 3. March, 1905. No. 10.

EDITORIAL CHAT.

A Slaughter of Innocents.

No fewer than 1,750 infants were overlain in England and Wales last year. This is a fearful waste of precious human lives. The only sure remedy is to provide a separate sleeping place for the baby. It is never safe for a mother who sleeps heavily to have her infant in the same bed with herself.

Tight Lacing.

THE Leeds Anti-Corset League is said to number 100 members. This is a good start; but surely the time is coming when we shall be numbering the women who persist in wearing such a useless and harmful garment rather than those who have adopted a more graceful, healthful, and comfortable mode of dress. Tight-lacing surely cannot long survive the widespread dissemination of health principles which is such a hopeful feature of the present day.

Alcoholic Sweets.

THE craving for alcohol in one form or another is increasing everywhere and among all classes of people. This is the legitimate result of perverted appetite which has been inherited from bibulous ancestors. To satisfy this craving in children or to develop an appetite for strong drink, manufacturers have added alcohol to chocolates and sweets of various kinds. These are said to be imported from Germany.

It is scarcely necessary to point out the danger of alcoholic confections. The safest rule is to avoid candies and sweets altogether. Give the children fresh fruit, such as oranges and bananas instead of questionable sweets and lollypops.

Care of Children.

THE Holborn Town Council gives some excellent advice to mothers on the care of children. It is a well-known fact that careless feeding and downright neglect kill thousands of children every year. Among other good counsel is the following:—

"Children should never sleep in bed with parents.

"Do not give children under three years of age beer, spirits, wine, cheese, pickles, pastry, nuts or sweets.

"Do not give them teething powders or soothing syrups."

Food for Babies.

THE ignorance of some mothers concerning the feeding of babies is appalling. One mother gave a baby of ten weeks' biscuits, which led to suffocation causing the death of the child. On being asked by the coroner if she always gave her babies biscuits, she replied, "Yes." Further inquiry showed that she had previously lost a baby from indigestion.

Another baby of six months had an attack of convulsions causing death. The convulsions were due to improper feeding. In this case the little one was fed on bread and milk. Bread is a dangerous food for infants of a few months, and quite indigestible.

In still another case a little child was given pickles, which promptly resulted in death.

The best food for an infant is the mother's milk. If this is not available pure cow's milk, properly diluted with water and enriched with cream is the best substitute for the natural food.

BOARD AT TWO SHILLINGS A WEEK.

BY ALFRED B. OLSEN, M.D.

THE economical advantages of a natural diet are generally admitted. Grains and legumes are not only cheaper by weight than meat, but also contain a larger percentage of nutrient material.

The Relative Value of Beef and Bread.

Dr. Robert Hutchison in his excellent work on food gives a table showing the relative value of a shilling's worth of various kinds of foods. According to this table a shilling's worth of ordinary white bread contains thirteen times as much energy and twice as much building material as the same amount invested in beef. In other words the bread contains fifteen times as much food as the beef.

The same is true of peas; a shilling's worth containing fifteen times as much food as a shilling's worth of beef. There is, however, this difference: the peas contain less energy producing material than bread, but twice as much building material, and hence more nearly resemble the beef in composition.

Even the lowly potato holds the advantage when compared in this way with beef. A shilling's worth of potatoes contains more than four times as much energy as the same value of beef, but is deficient in building material by more than one half, since it is a starchy vegetable and contains but little albumen.

A Business Man's Diet.

We recently met a merchant from Glasgow who has made accurate notes of his weekly food bill for several months. He is a fine-appearing, healthy Scotchman, fifty-five years of age, and weighs ten stone six and one-half pounds. From the early age of nine he has earned his living by hard work, and to-day puts in on an average eighty hours a week in his business. He is a draper, and personally superintends his shop.

The following is his average weekly expenditure for food. It will be seen that the variety is small, and the total quantity, too, is certainly much below the average of what people generally take. But he was well satisfied, and easily maintained an equilibrium of weight. He showed every evidence of being well-nourished, and both felt and looked well.

Potatoes, seven pounds, ...	3d.
Whole Wheat Bread, one loaf, (2 lbs.)	3d.
Dairy Butter, half pound, ...	7d.
Olive Oil, half gill, ...	2d.
Rice, half pound, ...	1d.
Mixed vegetables, one pound, ...	2d.
Cocoa, two ounces, ...	4d.
	1s. 10d.

These particular figures cover something more than three months, but his diet previously was very much the same, and the expense would vary but little. This expense does not of course provide for the preparation of the food, which cost him but a trifle because of its simplicity.

If we take into consideration an occasional invitation to tea (which he never drinks), his weekly board bill may be easily placed at two shillings. Such experiences are both interesting and instructive, and may be the means of encouraging others to adopt a more simple and natural diet than is customary.

Less Proteid Required.

This diet certainly appears deficient in nitrogen, but may it not be possible that people require less nitrogen than is usually believed to be necessary. Last month in our Editorial Chat we called attention to the recent experiments and observations of Professor Chittenden, of Yale University, regarding the quantity of proteid (food containing nitrogen) required by the body. His conclusions favour a much smaller quantity than is usually advocated by physiologists and medical men.

It is quite generally conceded that most people eat too much, but only recently has it been possible to demonstrate this fact in an accurate and scientific manner. There can be no doubt but that the overloading of the system with food even though it be wholesome, is productive of great harm. As a result the blood is thickened and the tissues clogged with a surplus of nutrient material.

Now, if the excess consists chiefly of nitrogenous food it would seem that the injury must be still greater than if an extra quantity of starch is taken, for the latter can be taken care of more easily by the body.

THE HOME-CARE OF THE SICK.

BY FRANKLIN RICHARDS, M.D.

"Let There Be Light."

DARKNESS breeds disease. Death lurks in dusky corners. Disease germs love darkness rather than light because their deeds are evil. They are quite at home in dingy dwellings, in the dusty depths of curtains and carpets, upholstered furniture, rugs, furs, and feathered beds.

Light regenerates life. The sun's bright rays re touch the faded faces of the sick with tints of health. Light stimulates appetite, improves digestion, promotes nutrition and development, thus causing growth. It is especially indicated, therefore, in the treatment of sickly children. Scrofulous and rickety children derive great benefit from the light-air bath. The child is permitted to go about without clothing, or with as little as possible, out-of-doors, or in a room with wide-open windows through which the sun may shine. The sun bath is of special value in the treatment of such nutritional disorders, as anæmia. When sunlight cannot be obtained, the electric light is substituted for it, and is found very effective.

Light is good for all forms of life except parasitic life. Virulent microbes are destroyed by the sun's searching rays in a few minutes. Diffuse daylight requires hours or even days to accomplish the same result. Thus again is emphasised the importance of outdoor life, or well-lighted rooms for the sick. Here nature's universal disinfectant is ever at work destroying the active causes of disease and purifying the air.

The Seeds of Sickness.

Acting alone, germs do not produce disease. They are the seeds of sickness, it is true; but in order to bring forth fruit, seed must be sown in suitable soil. Good ground for disease-seed is prepared by bad habits and incorrect ways of living.

Some disease-seed falls by the wayside; some upon the stony ground of a well-fortified body; other, though falling upon the good ground of a weakened constitution, may even yet be choked out by a well-cultivated crop of health. Remembering then that he who sows bountifully shall reap also bountifully, let us cast in liberally the good seed of health; and "let us not be weary in well doing; for in due season we shall reap if we faint not;" and in spite of the tares which the enemy sows, Father Time with his scythe will ingather for us a bountiful harvest of health.

But what shall be done for the man in whose flesh the seeds of disease have been sown and are already thriving? Sometimes it is possible to destroy them. This may be done, for example, in the case of a boil, which is simply a germ-garden growing in the skin. Here it is easy to open the boil and remove the germs together with the soil they grow upon. The oozing blood helps to wash them out, and afterward it heals the wound made by the surgeon. Thus the essential part of the defence is from within. Help from without can only co-operate with and assist the body's defensive forces. If these forces are too weak to beat back the invading hordes, line after line of defence will be broken through until life's citadel itself is attacked.

Suppose, however, that the point of least resistance,—the "good ground" for disease-seed,—is not external, but some internal part where germs are not so easily reached and destroyed by the surgeon. Perhaps someone has dragged an oyster from his legitimate feeding-ground at the mouth of the sewer, and someone else has had the courage to swallow this luckless scavenger, together with all that goes with him, including a colony of typhoid fever germs, some of which are soon snugly entrenched beneath the lining of the intestine, while others lie scattered upon its surface where they fell. What shall be done to help the body vanquish these hidden foes? How shall we strengthen its defences, increase its resistance, and call its reserve forces to the front?

In order intelligently to co operate with the physician in helping the sick man win in his battle for life, the nurse must understand something of the philosophy of healing. She need not necessarily know how to treat the disease, and the less she knows about traditional "remedies" the better; *but she must know how to treat the patient.* Whatever the disease, the patient needs to be made whole, and there is no

drug remedy in the world that possesses the power to heal. Healing virtue still comes from its ancient source, man's Creator. Nature is the medium. The blood is the carrier. It is the blood that heals, for "the life is in the blood."

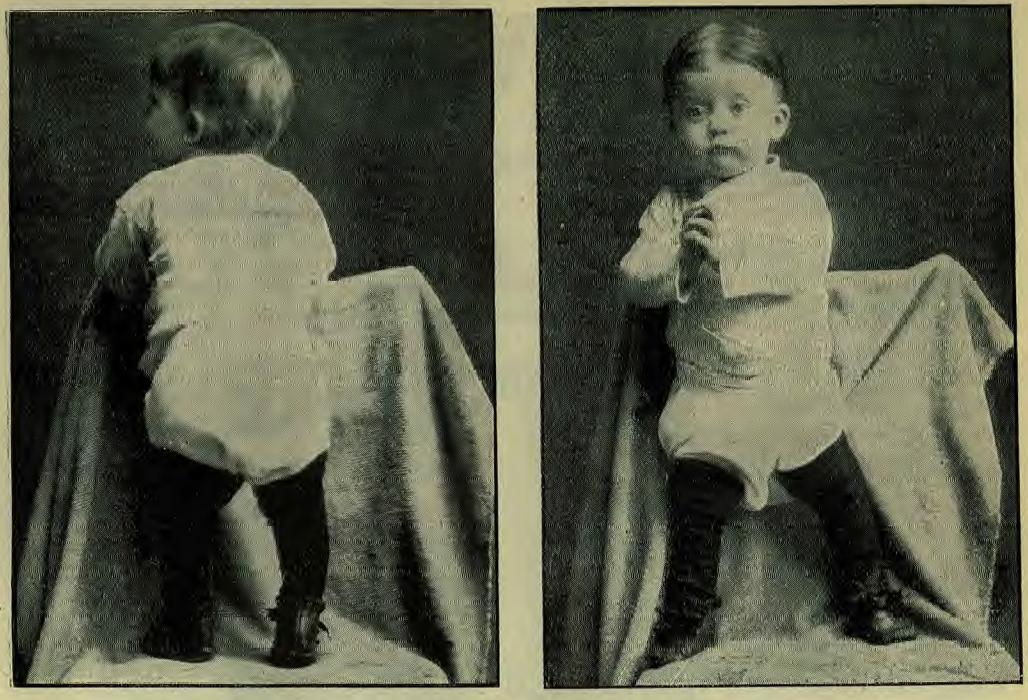
The blood not only does the healing, but it does the fighting for the sick man as well. Not only the body-builders are conveyed by the blood to every part, but the body-defenders also. These facts are of great practical importance to those who have placed upon them the responsibility of saving the lives of the sick; for, obviously, by controlling the circulation, we are literally controlling the stream of life; by increasing the flow of blood through an organ, we increase the number of builders and defenders in that organ.

The body is its own guardian, but it needs to be trained to defend itself effectively. The body-guards, like the Home Guards, require to be drilled and exercised into professional soldiers before they will fight imperially for their king—the man. Too often the body's warriors behave like raw recruits under fire for the first time. The blood itself, like a deserting soldier, at the first approach of danger skulks away to a safe retreat, allowing disaster and disease to ensue.

At this point it becomes clear how people "catch cold," and why congestions and inflammations are ushered in with chills, and accompanied by fever. By the blood hurrying into the warmer recesses of the body the skin and extremities are allowed to become cold, and there is chilliness and shivering. At the same time the internal temperature is increased,—there is fever.

Both chill and fever are indicators of the true state of affairs,—that is, they are *symptoms*. Symptoms as such, are not to be "treated." To throw a bucket of water on the furnace fire because some rooms are cold and others hot would be quite as rational as to give a "fever mixture" to damp life's fire when the feet are cold and the head hot. When the blood has been re-distributed, the heat-regulating apparatus will be re-adjusted, and nature's danger signal hauled down. To presume to drag them down without finding and removing the cause of the disturbance is to invite disaster and defeat. How best to equalise the circulation, prevent chilling and lower temperature, *while increasing the general vital resistance*, will be discussed next month.

UNDER-SKIRT WITH WAIST.



EQUABLY CLAD FROM THE FOUNDATION.

SHORT-COATING THE BABY.

BY MRS. E. E. KELLOGG.

LONG garments, always more or less an impediment to the free use of the limbs, are a constant hindrance to the physical development of the healthy, vigorous young child. There is no especial reason, save the conventional one of custom, why short garments should not be worn from the first, if the feet and limbs are otherwise properly protected for warmth. Some busy mothers, who have little time for sewing, have adopted this plan and use short clothes after the first month, up to which time only nightgowns are needed, since most of the babe's time is spent in sleeping.

During its prenatal life, the upper portion of the infant's body is better nourished than the lower, so that at birth the arm muscles are comparatively better developed than those of the lower extremities. Nature, however, endeavours to make up for this lack by giving the infant the inclination and energy to exercise its legs and feet by vigorous kicking during the earlier months of life. Long skirts greatly interfere with this necessary, normal exercise, and should be discarded, at least by the time the child is five or six months of age, if not sooner. The time must be somewhat dependent upon the season, as it is not advisable to make the change in the winter, particularly if the environments are such as to make it probable that the little one would take cold thereby.

DIAPER FOLDED LIKE DRAWERS.

The short clothes

DRAWERS.

should conform to all hygienic requirements, should equably protect every portion of the little body and nowhere constrict it. The mother would be considered culpably cruel who would pinch the baby's tender flesh with her fingers. Is it any less cruel to pinch the soft growing body with tight garments?

Soft rib-woven shirts, long-sleeved and high-necked, should form the foundation garment. Warm stockings of a thickness varying with the season, and covering the entire limbs, should reach to the diaper. These may for a time be fastened to it, but when the baby begins to creep and walk, a separate waist with stocking supporters is preferable. Children grow so rapidly that it is unwise to fit them to waists which allow for no expansion. If one cannot obtain the knitted waists, the best plan is to provide some of soft material made with several tucks running lengthwise under the arms, which may be let out from time to time to accommodate the growing form. Mothers should carefully guard against the little one's garments becoming too tight, from being outgrown, or shrunken. It is the wisest plan to take careful measurements of every part of the little body from time to time with a tape measure, and then of the clothing; compare the measurements and adjust the garments so that at all times they will be larger than the growing form they cover.

The diaper as usually doubled and pinned, serves as a hamper to freedom of movement when the little one begins to creep and walk. If such is still needed, it is an excellent plan to double it straight and put it on like drawers, lapping the edges at each side to fit, and fastening securely with safety pins. This plan affords the little one ample freedom to exercise its limbs, and is so much more convenient in the training to tidy habits that a trial brings it at once into favour.

Drawers may be made to wear over the diaper and buttoned on the sides as shown in the illustration, or sewed together for use after the diaper is dispensed with. In either case, they should be buttoned to the knitted waist.

THE PRINCESS UNDERSKIRT.

In cold weather, additional warmth for the limbs must be supplied by leggings, leglet drawers or tights.

Underskirts, whether one or more be needed, as determined by the weather, are preferably made after the simple princess

THE TOILET COMPLETE.

A SERVICEABLE DRESS.

THE CREEPING APRON.

model. A skirt sewed to a waist is not objectionable when care is taken, through the making of frequent changes, that the waist never becomes tight. Whether or not the skirt demands sleeves, depends upon the season and other garments worn. It should be borne in mind that the arms require to be as warmly clad as other portions of the body. The admiring mother should not yield to the temptation to leave either the baby's plump arms or legs bare in ordinary weather. Chilling is far more apt to occur when only a portion is uncovered than when the whole body is exposed.

To complete the foot covering, shoes of soft kid are required. Their shape should be that of the child's foot with soles sufficiently broad not to cramp or misshape the little member, the tissues of which are so soft that deforming the foot by improper shoes is a very easy matter.

So many pretty and suitable designs for the outer dress are in vogue that there is ample room for choice. The little overalls are especially simple and convenient to launder. Round, square and pointed yokes with full skirts gathered thereon make very dainty garments for the first short dress. When the little one begins to walk and climb about, the fulness of the skirt is, however, likely to be in its way. For this period a simple and very serviceable little dress may be made as illustrated in the accompanying cut. Such dresses, cut from an ordinary sacque apron pattern, are easily made, easily washed and ironed, and may be given a variety of effects by differently trimmed and shaped collars.

Another very serviceable article for the baby's wardrobe is a creeping apron, so made as to confine all the other clothing. Openings for the legs with bands to fasten just below the knee, give the necessary freedom of movement.

The wise mother will choose more durable materials for the short dress of the creeping, climbing, rollicking baby than was needed for its first tiny garments. Only such fabrics as can be washed are suited to the purpose. If the washing is a matter of consideration, as it is with many mothers, then it is wisdom to choose materials of soft colours for every day use rather than white, which, although so fitting and beautiful, necessitates too great an amount of time and labour to keep the little one freshly and cleanly clothed. Besides, the baby garbed in white, is likely to be prohibited the free use of its powers from fear of soiling its clothes.

From ten to twelve dresses are none too many to provide for the little one's probable needs. Inexpensive materials such as soft ginghams, seersuckers and cambrics are well suited for common use. The baby's dress, like the frame of a lovely picture, should serve merely as a setting for the real gem. Let, therefore, healthfulness, suitability and simplicity characterise all the little one's garments.

"OH, mamma, come quick!" cried little Bess, who had never before seen her small brother do anything but crawl. "Come quick, mamma! Baby is standing on his hind legs."—*Sel.*

THE WASTE AND REPAIR OF THE BODY.

BY ALEXANDER BRYCE, M.D., D.P.H., CAMB.

No more difficult nor abstruse subject has ever occupied the attention of the physiologist than that which deals with the growth of the human frame. Earnest, scientific men have spent and are spending their whole lives in attempting to solve the problem—a problem which is at least in its highest aspect perfectly insoluble, as only when the very essence of life itself has been discovered can we expect a complete answer to the question. Still much has been done to elucidate the mystery; much which is daily bearing fruit in improved methods of healing; and, if I can only succeed in enabling the readers of GOOD HEALTH to obtain an intelligent appreciation of what we know, their interest in maintaining their own health will be deepened, and they will be able to assist in hastening that great and glorious day when man shall know himself. The name which has been applied to the ultimate life processes of the body by the scientist is metabolism—a word compounded of two Greek words meaning to "throw beyond," but whose significance may shortly be explained as an exchange of material. It refers to the act or process by which on the one hand the dead food is built up into living matter, and by which on the other hand the living matter is broken down into simpler products within the cells of the tissues, and it covers the whole ground from the entry of food and drink into the mouth, and air into the lungs, till their excretion by the skin, lungs, kidneys, liver and bowels. It is, however, usual to confine the word to the actual changes which take place between the blood on the one hand and the ultimate elements of the tissues on the other hand.

To rightly comprehend the details of this process it will be necessary to properly realise the essential nature of the tissues. Reduced to their ultimate elements these are simply conglomerations, or rather aggregations of cells surrounded by tiny blood-vessels. The ordinary prison cell is familiar, by description at least, to most of my readers and consists of a bare apartment with four walls bounded on one or more sides by a corridor. A door in one of the sides serves the purpose of an air inlet and outlet, and its contents are practically air and a prisoner. In like manner the cells of the tissues are bounded by a wall which may be circular, oblong, elliptical, quadrangular or other varied shapes, and its contents are a substance called protoplasm and a prisoner in the shape of a nucleus, which is really the most important part of the cell. As a rule it has no outlet or inlet, for the whole wall is porous, so that it can absorb the materials for carrying on its life processes, and in the same fashion expel its waste products.

It is usual to call the protoplasm of the human cell by the name of bioplasm, the former term being also applicable to the contents of vegetable cells. The peculiar feature is that every tissue in the body is composed of cells which originally were alike, but in the process of development have become specialised into a consistency and shape necessary for their localised work, and it is quite easy by microscopic examination to tell from what tissue and often from what precise locality any individual cell may have come. Just as the corridor round the prison cell supplies air and is the medium for the supply of food, so the blood-vessel called a capillary,—because it is finer than a hair—round the tissue cells conveys the food and oxygen for their nutrition. As this nutrition takes place by a union of the two—the food and oxygen—it is called combustion, or an oxidation process, and the elements in the blood may be compared to the fuel in a fire. The food we eat cannot be converted into this fuel until it has been masticated, insalivated, swallowed, digested, and absorbed into the blood, and upon the proper fulfilment of these functions, quite apart from the nature of the food, depends the capabilities of the fuel at the cell's disposal.

The ordinary fuel burned in our fires today has been prepared in the crust of the earth by a very elaborate process during the course of the world's history. Geologists tell us that it originated in the bog moss (which can still be seen in a Scottish or Irish peat moss), which grew luxuriantly for multitudes of years, that it was then

covered by the sea, which deposited its layers of sand and gravel, and after many other changes and considerable compression resulted in the formation of the concentrated carbonaceous deposit we now call coal. The original green plants which absorbed their carbon by the aid of the sunlight from the air are thus converted into the black coal so useful to us as fuel to-day.

Fortunately the plants which supply us with food do not require such a prolonged process for their change into our body fuel, but none the less is it necessary that these processes should be in no way hurried, but deliberately practised, so that the ultimate result should be a success. It is in this respect that Mr. Horace Fletcher's researches on mastication are of such profound import, as he has proved to a demonstration that practically all the digestive and absorptive functions are dependent on effectively chewing our food. Our food, then, having been absorbed into the blood, and become a constituent part of this fluid, is now brought as fuel by the circulation to be burned up in the tissues. The blood is then the fuel, but it is much more than the fuel, for it is the circulating medium both for the income and expenditure of the tissues. In order that you may more thoroughly understand the process let me change the simile to that of a banking account. Those of you who possess that desirable acquisition know that there are many means of swelling it. It does not matter whether you lodge with your banker cheques, postal orders, cash, bonds, bills, scrip or other well known bills of exchange, they are equally acceptable and converted by your banker into liquid assets, the raw material of which is the recognised circulating medium of the financial world. However large and unwieldy may have been the original source of your income, you have now no difficulty in dividing it into small sums, and apportioning it accurately to pay bills, and so satisfy your baker, your tailor, your shoemaker, etc.

It is precisely in the same way that the varied and bulky ingredients of the bodily income, the proteids, the fats, the carbohydrates, the salts, water and oxygen are converted into the blood, which is the circulating medium, nay, the liquid assets of the body. There is now no difficulty in apportioning to each individual tissue and cell the precise amount of nourishment required by it, because the circulation carries it to the remotest recesses of our body, so that each cell is bathed in the life-giving fluid.

And now comes the most remarkable of all the remarkable processes in our wonderful body, for each cell of each tissue is able to take from the blood practically the same substance in the proper proportions, and yet is able to convert these into its own peculiar substance, so that in the one case brain tissue, in the other bone, in another muscle, and in another nerve tissue is formed. It is a matter of everyday observation that some plants will grow on one soil and other plants on a different kind of soil; but here is a case in which from the same soil, the same nutrient fluid, the most diverse structures are capable of being formed. It is also a wonderful fact that from the blood, secreting glands whose cells are to all intents and purposes practically similar should evolve such varied products as tears, milk, saliva, etc. There is little doubt that when an explanation of these processes is possible the secret of life will have been solved.

In still further elucidation of this great problem let us revert to our former simile of a fire. The combustion of coals in a fireplace is productive of heat, which may be utilised simply to heat an apartment, or still further to produce steam which can be used for the evolution of energy. The waste matter from the coal drops through the bars of the grate in the form of ashes and the constant stoking necessary, together with the intense heat evolved ultimately wears out the structure of the grate itself. Should such a contingency take place then, a mechanic is called in who repairs the worn out parts or replaces them with new ones. Now in precisely the same way the tissue cells take up substances from the blood which is really the body fuel, but whilst in the case of the fireplace the coal always remains distinct and separate from the structure of the grate, in the case of the tissues the fuel is actually incorporated with the bioplasm of the cell, and becomes a part of itself. Combustion takes place—heat and energy are produced, and ashes or waste products are thrown off in the shape of water

carbonic acid, and nitrogenous products. But the special feature of the cell fireplace is the ability it has for repairing itself. There is no necessity for an outsider to interfere and add a new side or top or bottom, the whole thing is automatic and takes place by virtue of a vital process. There can be no question about the marvellous facts, although there is much controversy as to their explanation. So much is certain that so long as life exists these changes take place, and when death results they cease. We may talk about them as much as we please in terms of chemical equation, there must always remain the inexplicable mystery of life.

To carry our simile further, it is quite possible with a known quantity of coal to produce a known amount of energy which may be applied to the working of an engine. We will suppose that a measured amount of coal should produce twelve horse-power, and only succeeds in mounting up to six horse-power; the engineer at once sets about the discovery of the error. There made be a blocked flue, or an inferior grade of coal with an excess of ash, or some other discoverable and easily remediable defect.

In a precisely similar manner it is quite possible on a known quantity of food to estimate in any individual the amount of energy it should produce, and if this is not forthcoming to tell from the excreted waste products just where the defect takes place. This is one of the great advantages of living in a well regulated sanitarium where accurate investigations are possible. The excretions of the activity of the cells pass off through the kidneys, the skin, the bowels, the lungs, and are incorporated in the soil and in the air. In course of time they are taken up by plants, and these again by animals which again excrete them, and so on the great revolution goes,— another proof of the indestructibility of matter. Evolution from the soil into an animal and devolution from the animal, the possessor of life, back again into the presumably dead and certainly inanimate soil.

It will thus be seen that there are two processes involved in the functions of metabolism.

1. A building up of the bioplasm or assimilation, technically called anabolism.

2. Breaking down of the bioplasm or dis-assimilation, technically called katabolism. If these exactly balance each other then equilibrium takes place—a happy condition only known in careful living people. Happy because when equilibrium is established no energy is wasted in digesting more food than is required, and no clogging of the system results in storing up fat which is not required. When assimilation is in excess then fat is laid on, when dis-assimilation takes place in excess then fat and flesh are lost.

The determining factors in the process are:—

1. The amount of pabulum supplied. There must be an efficient supply in the blood, and when there is it does not matter whether it comes from the animal or vegetable kingdom, the results on nutrition ought to be the same.

Now I am aware that much controversy has raged and is raging round this very problem at the present moment, but even the most bigoted flesh eater would admit that once the albumens enter the blood, they are equally capable of nourishing the tissue. I dare not say as much for the fleshless eater who is absolutely convinced that animal albumens can never build up a sound and healthy body. Anyone possessed of an unbiassed judgment, however, must agree with the flesh-eater's view, however much he may be inclined to the opinion that the waste matters introduced with the animal albumens are detrimental to the best interests of the body. On the other hand it is asserted that "the nitrogenous matter obtained from vegetables is less easily digested than that which is of animal origin; a much larger percentage passing from the alimentary tract unutilised. Few persons live entirely upon a vegetable diet. Those who attempt it lose vigour, and show languor and disinclination for physical and mental work. They become less able to resist disease. Because a vegetable diet is an economical one, it has sometimes been forced upon bodies of labourers, but uniformly the decrease in the amount of work that they are able to perform more than counterbalances the decreased expense of their food. In vegetables enough proteid can be found to make it possible to substitute them for meat for the purpose of maintaining life and strength. As vegetable proteid is very imperfectly digested and absorbed, a sufficient vege-

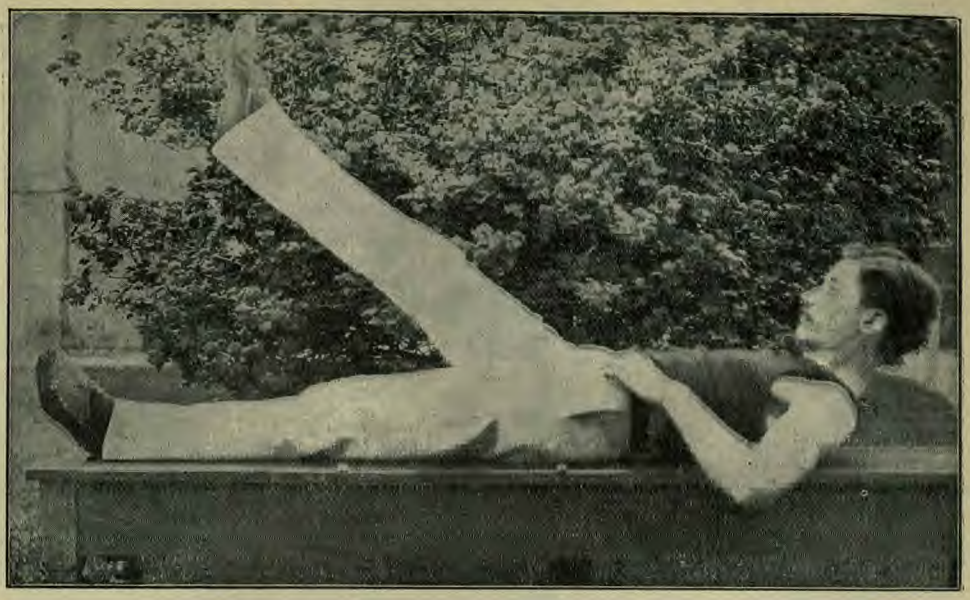


FIG. 1. EXERCISE (*g*). HEAD AND LEG-RAISING.

table diet must be a very bulky one. It will maintain strength, and by eating vegetable food only, one may be able to lift as much; but he will not be able to work so fast as on a mixed diet. He will lack energy and alertness. It is quite evident from man's anatomic structure, physiologic functions, and habits of eating, handed down from earliest times, that a mixed diet is best adapted to his needs. At the same time it is unquestionably true that too much meat is ordinarily eaten by many individuals."

Now I have quoted this paragraph word for word from "Dietotherapy and Food in Health," (G. Davis in the "Physiologic Therapeutics" series,) to indicate what is the position of the orthodox medical practitioner of the present day on this great subject. And this in face of the vast accumulation of evidence which is lying to hand, that great masses of the people live on the very diet we are told is unsuitable and incapable of giving the best results in daily life.

I am personally acquainted with many people who live on a purely vegetable diet, *i e.*, fruits, nuts, and cereals, and I only wish I possessed their physical and mental vigour and energy. On the other hand such people are few as compared with the increasing number of those who, whilst fleshless eaters, yet include such products of the animal kingdom as eggs, milk, cheese, and the many milk proteids now on the market.

No one dare gainsay the fact that the highest degree of physical and mental health can be maintained on such a diet, and that it is infinitely more suitable than a mixed diet, for a great proportion if not all the people amongst present town dwellers. It is also certain that where special means are taken to properly cook vegetarian foods, and even to concentrate some of their albuminous products such as is found in protose and gluten, that many of the defects attaching to this class of food are done away with. It is only fair to add that the above author goes on to say that "often a change from a generous mixed diet to a so-called vegetarian regimen improves the health of individuals. It does this by correcting bad habits, such as eating too much, eating rich foods, drinking too little, and by removing such pathologic states as constipation. A radical dietetic change usually diminishes a person's appetite, for fewer things that he enjoys are placed before him. The vegetable, fruits, and cooked cereals contain a larger amount of water than may otherwise be obtained, the coarser cereals such as brown bread and fruits as well as the increased supply of water, help to provoke more regular and copious bowel movement."

(*To be continued.*)

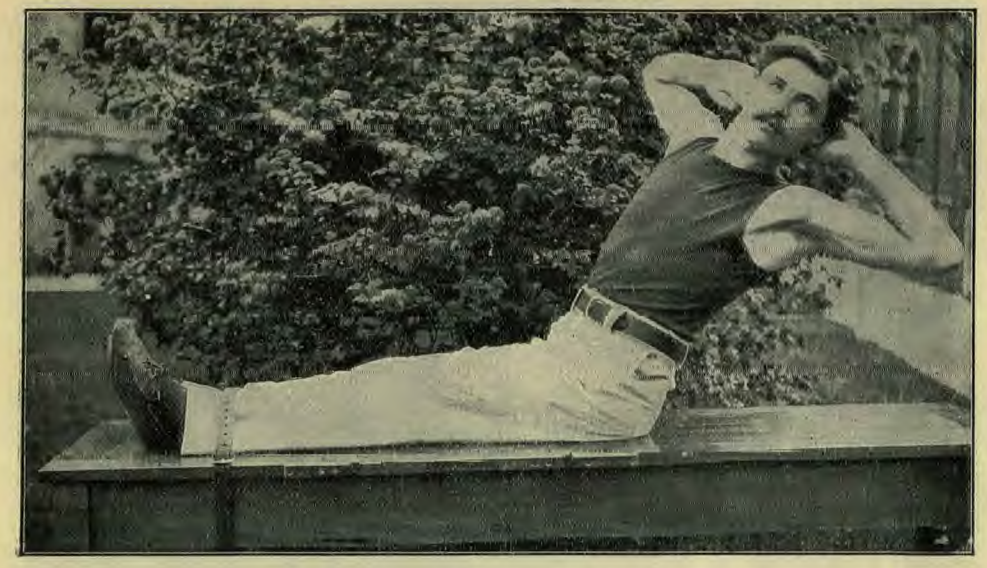


FIG. 2. EXERCISE (*h*). TRUNK ROTATION.

EXERCISES FOR THE WAIST MUSCLES.

BY J. W. HOPKINS.

SYSTEMATIC training of the side and front muscles of the trunk more directly affects the state of health than do any other class of exercises in the Swedish system. These divisions of the day's order are known as Abdominal Movements and Lateral Trunk Exercises.

Abdominal movements are exercises which cause the muscles of the abdomen to contract and relax. A few good exercises classified according to the strength of the movement are as follows: (*a*) Lying, head-raising; (*b*) stretch-lying, alternate knee flexion with leg extension; (*c*) rest-lying, alternate leg-raising; (*d*) wing-knee-standing, trunk flexion backward; (*e*) wing-foot-support-sitting, trunk flexion backward; (*f*) rest-lying, 2-knee flexion with 2-leg extension; (*g*) lying, head and leg-raising; (*h*) rest-fall-foot-support-sitting, trunk-rotation.

These are described as follows; (*a*) lying on the back, with the hands placed on the hips, raise the head as far as possible without raising the shoulders or cramping the chest. Count six while raising the head, and the same while lowering it. Figure 1 illustrates this movement of the head. (*b*) Lying on the back with the arms stretched over the head, grasping, if possible, the legs of a chair or some other support: 1, Bend the left knee, bringing it well above the abdomen; 2, extend the leg upward, toe pointing upward; 3, lower the leg, keeping the knee straight. Figure 3. (*c*) Lying on the back with the hands clasped behind the head and the elbows pressed to the floor, raise the legs alternately. (*d*) With the hands on the hips, kneel. In this position bend backward several times. (*e*) Sitting with the hands on the hips, support the feet under the edge of the bed, bureau, or bookcase. Bend backward, then raise the body. (*f*) Lying on the back with the hands clasped behind the head; 1, Bend both knees as in exercise (*b*); 2, extend the legs upward, until they are straight; 3, keeping the legs straight, let them return to position, resting on the floor or bed. (*g*) Lie on the back with the arms at the side. Raise the head and left leg. Count five while raising the head and leg, and the same while lowering them. After the patient is sufficiently strong, both legs may be raised with the head. (*h*) Sit with the hands clasped behind the head, and the feet supported as in (*e*). Bend backward about forty-five degrees; then, holding the body straight, twist alternately to left and right. See Figure 2.

In all abdominal exercises the chest must be lifted and the ribs fixed before the movement is taken. If the chest is thus arched, the compression of the abdomen begins below, and the viscera are moved upward, thus being restored to their natural position. But if the chest is not arched and the ribs fixed, the upper part of the abdomen is flattened and the stomach and bowels are pressed downward.

So it is well to combine all these movements with breathing exercises. For instance, in Exercise (*g*) first take a deep breath, then raise the legs and lower them again before breathing out. Repeat the exercise, alternating deep breathing with each movement. In exercise (*d*) take a deep breath before bending backward, and after reaching the reclining position empty the lungs and fill them again before lifting the body.

These abdominal exercises have a direct influence upon the circulation. With each contraction of the muscles of the abdomen the viscera are subjected to strong pressure, and this forces the blood out of them and also out of the abdominal cavity into the limbs. When the muscles relax, and the pressure is removed, the reverse takes place, the blood flowing back, so that the tone and strength of the digestive organs, are greatly improved by a course of these progressive gymnastics.

A RECORD WALK.

THE accompanying photograph of George H. Allen was taken a couple of days after his record walk from Land's End, to John O'Groats. The distance of about 900 miles was covered in less than seventeen working days.

Mr. Allen has been a staunch vegetarian for six years, and while walking his diet consisted of bread and butter, poached eggs, potatoes, greens, salads, rice and fruit.

On such a pure, nourishing diet he made the walk with ease, and felt fresh and fit at the end. Surely this achievement demonstrates beyond any doubt that both strength and endurance can be had from a non-flesh diet.

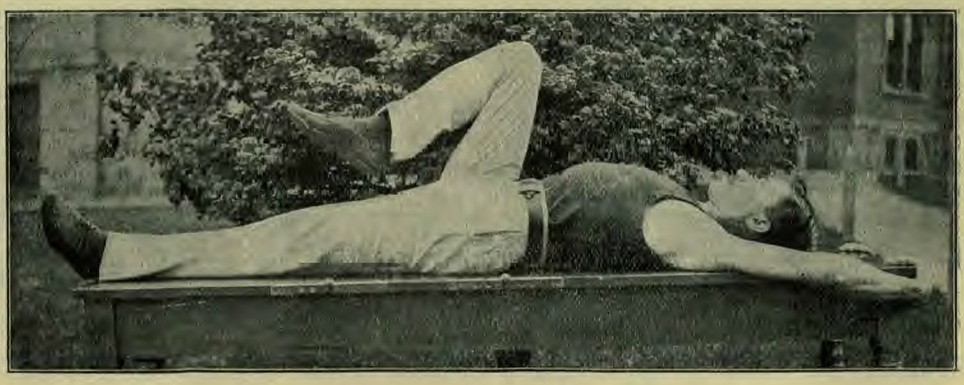


FIG. 3. KNEE-BENDING FOR LEG-EXTENSION UPWARD.

THE SPRING BILL OF FARE.

BY M. ELLSWORTH OLSEN.

As cold weather gradually merges into the milder days of early spring it is well to make corresponding changes in the diet.

The spring bill of fare should be rich in fruits and simply-cooked vegetables. Oranges are fairly abundant at this season of the year, and their free use will save doctors' bills. They may be eaten to best advantage immediately on rising in the morning, and again before retiring at night. Two or three sweet, juicy oranges might well take the place of the supper which is often eaten at nine or ten o'clock in the evening. The result would be more refreshing sleep, and a better appetite for breakfast.

Apples are also to be highly recommended; stewed Californian prunes, raisins, figs, and other dried fruits are timely, and may be had at a reasonable figure. The tinned fruits, such as peaches, apricots and pears, if of a reliable brand, may be taken without fear, and will help to give a pleasing variety. Such fruits should always be removed from the tin immediately after opening.

Breakfast is the meal at which fruit naturally seems most grateful. For persons who have not heavy work to do, a very light morning meal composed principally of good wholemeal bread and butter and fruit is quite the ideal thing. Fruit toast, made by pouring over pieces of zwieback any fruit juice heated to the boiling point and slightly thickened with cornflour, makes a good warm dish.

At dinner vegetables naturally occupy an important place. As the fresh vegetables come into the market, they are of course the best; but tinned peas, French beans and tomatoes are very good substitutes.

Flesh meats, even if they are indulged in during the winter may well be laid aside in the spring, or at least used very sparingly, for they contain excrementitious wastes which clog the system, and interfere with that feeling of buoyant well-being which is the object of healthful living to cultivate.

The following recipes will at least prove suggestive:—

RECIPES.

Scalloped Tomatoes.—Rub one tin of tomatoes through the colander; season with a tablespoonful of nut butter (rubbed smooth in a little water) and salt to taste. Stir in three small cups of zwieback crumbs, and bake for half an hour.

Green Peas.—Simmer a tin of green peas gently till the liquid has nearly all evaporated; then add a pint of rich milk and cook a little longer. If sterilised milk is used, there will be no danger of its turning.

French Beans.—Heat a tin of French beans to boiling point, add salt to taste, and serve with plain white sauce.

Cherry Soup.—Add to a jar of stoned cherries 1½ pints of water, bring to a boil, and thicken slightly with cornflour. Add sugar to taste, and serve hot. If the cherries are not very juicy a little lemon juice may be added.

Scalloped Potatoes.—Pare the potatoes and slice thin; put them in layers in an earthen pudding dish, dredge each layer lightly with flour, and salt, and pour over all enough good, rich milk to cover well. Cover and bake rather slowly till tender, removing the cover just long enough before the potatoes are done to brown nicely. If preferred, a little less milk may be used, and a cup of nut cream added when the potatoes are nearly done.

Steamed Turnips.—Select turnips of uniform size, wash, pare, and steam rapidly till they can be easily pierced with a fork; mash, or serve with lemon juice or cream sauce, as desired.

Golden Salad.—Prepare eggs by hard boiling them. Cut when done, into two parts; remove the yolks without breaking the whites, mash them and mix with enough mayonnaise or boiled salad dressing to bind them. Fill the egg-white shells with the prepared yolks, and stick the two half whites together, thus forming whole eggs. Cut

one end flat, and stand an egg on a lettuce leaf on each salad plate. Around each egg put a circle of mayonnaise.

To Make Lemonade Without Sugar.—Place the juice of the required number of lemons in a jug, and to every two parts of boiling water used add one part of the juice of any naturally sweet stewed fruit, such as figs, prunes, dates, etc. This is more wholesome than using large quantities of sugar, as is usually done, which only hides the acidity of the lemon to the taste, and does not destroy it, and merely leaves an excessive quantity of artificial sugar upon the system which is distinctly harmful and clogging, especially when suffering from a cold. G. G.

DINNER.

Soup—Delecate.
Baked Tomatoes.
Green Peas and Braized Potatoes.
Granose Biscuits and Butter.
Lettuce.
Fruit and Natural Lemon Squash.

Baked Tomatoes.—Take some large round tomatoes, cut a hole in the top of each one and scoop out a little of the pulp, then with that make a forcemeat by adding a finely chopped onion and a little parsley, a cupful of avenola, a little boiled rice, a beaten egg, with salt to taste. Mix well together, and stuff tomatoes. Replace the tops, and place in baking dish, and bake in a moderate oven one hour. Serve with braized potatoes and green peas.

Delecate Soup.—Take half a cup of white rice; wash and boil in a quart of water one and a half hours. Strain, and add four tablespoonfuls of thick cream with salt to taste. If desired, a little Plasmon may be added just before serving.
MRS. A. H. WARREN.

WHEN BABY CUTS HIS TEETH.

BY MRS. EULALIA SISLEY-RICHARDS, M.D.

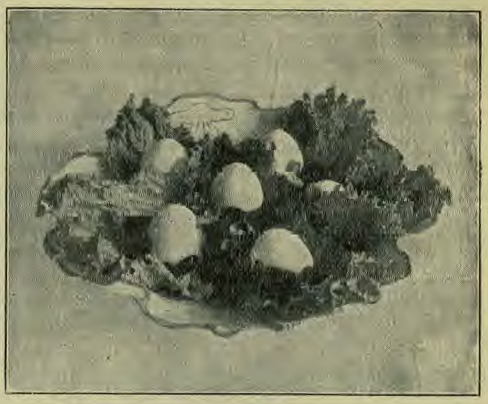
AFTER the baby reaches the age of six or seven months, it makes little difference what ails him, the fact that he is teething or about to teeth is generally given full credit for his indisposition.

The average young mother looks forward to this time with dread. Her mind is harassed with visions of tedious days and sleepless nights when a fretful infant must be held in arms or carried wearily across the floor until her limbs grow heavy and her heart distressed.

Many mothers seem to believe that the process of teething must necessarily disturb a baby's constitution something as an earthquake or a volcanic eruption disturbs the course of nature. But this is in no wise true, at least, it need not be true.

Teething is an entirely physiological process, and in a healthy child should be attended with no more disturbance than any other natural function of the body. It is the sickly, ill-fed, ill-attended child that falls prey to serious troubles at this time.

The first set of teeth, or the milk teeth, as they are called, usually begin to appear about the seventh month, in some cases a little earlier, in others later. For three or four months previous to this time there is a noticeable increase in the flow of saliva, which indicates that nature is preparing



GOLDEN SALAD.

for the time when, after the advent of the teeth starchy foods will be taken by the little one. Also for a time before the appearance of the teeth the gums grow broader and somewhat more prominent, but in healthy children they do not become red or inflamed.

The two central teeth of the lower jaw are usually the first to appear, then after a few weeks the corresponding teeth of the upper jaw. The teeth are cut in distinct groups with a pause of several weeks or even months between the eruption of each group.

It is not necessary for the mother to know their exact order of appearance, but she should know that a baby one year old should have at least six teeth (and possibly twelve if the third group is promptly cut) and that by the time he is two or two and a half years old, his teeth should number twenty, which completes the temporary set.

Should a baby reach the age of one year without a single tooth, his mother should consult a physician, as this delay in dentition often indicates rickets, and special diet and judicious management are required in such cases.

Troubles Incident to Teething.

The healthy baby will cut his teeth without serious trouble. He may be a little restless, and may not take his food quite so enthusiastically as usual, but these are not alarming symptoms. In fact during teething time it is well to take particular care that baby's digestion is not disturbed by over feeding. See also that his bowels move regularly, and that his extremities are kept warm.

If he manifests a desire to bite something, there is no harm in allowing him to have an ivory ring, provided it is kept scrupulously clean, and not permitted to fall about the floor. It might be better, however, to let baby bite on a plain, hard biscuit. This should be of such a nature that it will not break easily, as it is not desirable that the biscuit be actually eaten. It would certainly be unwise to allow a baby to be biting something constantly. A biscuit might be given him for a few minutes just before feeding and then should a wee bit of it be swallowed it would not disturb his stomach as though taken between meals.

Should the little one seem fretful at bedtime a warm sponge bath is often refreshing and ensures a restful night.

The baby who has always been sickly will be fortunate if he passes through the teething time "without troubles of his own." In such a child, indigestion and diarrhœa are apt to occur at this time. To prevent this, extreme care must be taken with the food. Attention must be given to the first sign of indigestion. Withhold food for one or two feedings, giving an abundance of plain water to drink, that the stomach and bowels may be freed from undigested and irritating food substances.

Then give food again, carefully prepared, in moderate quantity, and not too frequently. Examine baby's mouth from time to time, and if the gum is red, swollen, and very tender it may be necessary to have the doctor lance it, in order to relieve these symptoms and make way for the tooth.

Occasionally convulsions occur during teething, usually a hot bath with cold compresses to the head bring speedy relief. A *word of caution* should be spoken to mothers. Do not fall into the error of believing that every ailment of babyhood is simply a necessary accompaniment of teething. More than one mother has allowed disease to gain a fatal foothold in her little one, comforting herself with this thought: "Of course he is miserable because he is teething, but he will soon be all right."

Remember that the tiny life may easily be extinguished, and do not allow serious disorders to pass unnoticed simply because baby is teething. The trouble may be due to teething, but the chances are that it is in no way connected with it—and perhaps prompt and vigorous measures may be needed to save the little life.

The milk teeth remain in position for several years, until the permanent teeth push upward in the jaw beneath them. The roots of these first teeth are then partially or entirely absorbed so that they loosen and fall out, making room for their successors. These second teeth make their appearance in much the same order as the first, several months often intervening between the eruption of each group. There are thirty-two teeth in this permanent set, this number not being complete, however, until from the eighteenth to the twenty-fifth year of life.

The Care of the Teeth.

Every mother owes it to her child to give his teeth proper attention until he is old enough to care for them himself.

Many think it makes no difference if the milk teeth decay, since they will soon fall out in any case. But *it does make a difference and the first teeth, as well as the second, should be carefully cleansed daily.*

At first, when there are only a few teeth, morning and evening they should be thoroughly rubbed with a soft linen cloth, moistened either with water or boric acid solution. Later, when the temporary set is complete, a soft tooth-brush should be used twice daily. As soon as possible teach the little one to use the brush for himself—and *see that he does use it regularly.* To obtain this result will doubtless require patient perseverance, but the loving, tactful mother will, however, find a way of bringing it about.

It is not always necessary to use a

dentifrice, but occasionally a plain chalk powder, or prepared chalk and orris root with oil of cinnamon or other suitable flavouring may be used to advantage.

Should an accumulation of tartar appear upon the teeth, a soft stick may be moistened, dipped in finely powdered pumice stone and rubbed upon the spots until they are removed.

Let it be remembered that the teeth, in order to be healthy, must be used. So give the little folks, every day, something wholesome, hard and dry, which will furnish the teeth with the exercise they need. Zwieback is admirable for this purpose.

Occasionally the milk teeth are tardy in making way for the permanent ones. Consequently the latter are compelled to push their way into the mouth in a most irregular and distressing fashion. If such a result threatens it would be best to take the child to a dentist in order to gain his advice and his assistance if necessary.

In fact it is well to establish the rule of taking the children to the dentist every six months, just to have their teeth examined. Should a cavity or any other trouble be discovered it could receive prompt attention, and thus much pain and discomfort, which too often multiplies by delay, might be saved.

JAPANESE COAL HEAVERS.*

BY E. E. ADAMS.

AT the present time there is much interest in things Japanese. There is also considerable agitation over the question of a vegetarian dietary.

A glance at the Japanese wrestlers of Tokio, whose size and strength have been developed without the use of flesh food; or at the joyful little rice-eating coalers of Nagasaki, would solve this problem in a moment.

The coaling at Nagasaki is a most interesting proceeding to a visitor. This Japanese seaport is filled with dockyards and repair shops, and is visited by ships of all nations, for repairs and coal supplies. As soon as a steamer arrives, broad planks are arranged up each side of the ship by the nimble Japs, and on these they stand in line while a stream of baskets filled with coal passes from hand to hand, from the coolies in the lighter shovelling the coal into the baskets, to the last man, who empties it over the bunkers' mouths. Women and boys assist in the work, which is carried on with zeal and unflagging energy and enlivened with chatting and chanting.

The incredible speed with which they work, enables the Japanese coolies, working by hand in this way, to coal vessels much more rapidly than it has ever been done by steam power, overhead machinery, and elevated tracks for coal cars. A visitor to Nagasaki writes:—

"Three years ago, after an eleven days' detention in quarantine here, my ship was brought into the harbour at 7 in the evening. In half an hour the work had begun, and, notwithstanding a deluge of rain at 10 o'clock, coaling never flagged until 1 o'clock in the morning. In that time 1,550 tons had been put aboard, and the lighters swung away with all crews cheering joyfully, for the coal company had promised them forty-eight hours' holiday, free baths and saki, if they would get the quarantine steamer away quickly.

"Since then 1,210 tons have been put aboard ship in three and a half hours. This rate of 372 tons an hour was the marvel of the initiated until this spring, when 420 tons an hour went to the credit of the cheerful, joyful little Nagasaki coal-passers. At this last record-breaking performance 2,100 tons were put aboard in five and a half hours, during which time each gang had a half-hour's rest for their mid-day meal."

The diet of these indefatigable and cheerful workers consists almost exclusively of rice. Among country folk this is supplemented by beans, peas, millet and barley. Pickled and salted relishes are used with the rice to give it flavour, and salt fish is also used for seasoning; but the staple article of dietary is the Japanese rice, more solid and glutinous than the Chinese variety, which is much cheaper. For a lighter meal, the coolie classes make use of soba, a macaroni made of buckwheat.

All day long, and often at night also, the Nagasaki harbour rings with the chant and laughter of these healthy, capable workers, who have been designated as "probably the happiest and most contented poor that one may find in the world."

* See frontispiece.

A CHAT WITH INVALIDS.

BY M. ELLSWORTH OLSEN.

THERE are two kinds of invalids—curable and incurable. Fortunately the former class is by far the most numerous. Probably nine-tenths of the world's invalids could under proper treatment either completely recover, or at least attain such a degree of health and vigour as not any longer to merit the name of invalid.

The comparatively small class of incurables, *i.e.*, of persons suffering from disorders of an aggravated character which defy successful treatment, can still greatly lessen the tedium of confinement, and increase, their own happiness as well as that of their friends by a course of

Self Treatment.

Needless to say, this treatment is largely mental. First, cultivate hope. Medical knowledge is by no means absolute. Recovery has occurred in so-called hopeless cases. But don't rest satisfied with hoping for physical improvement or final recovery.

There is an even more vitalising hope, namely that of being of use in the world. Pain often sours the disposition, and gives a harsh, gloomy, despondent cast to the whole mental experience. But it need not so affect a person. There have been invalids from whose bedsides streams of blessings have flowed out to a sin-sick, suffering world. Self-mastery, the spiritual conquest over rebellious aches and pains, may fit one for peculiar usefulness. Some of the best and noblest work that has ever seen light has been done by invalids. Hands trembling with pain and fatigue have penned lines which have been a very *elixir of life* to countless thousands of weary, discouraged souls. Men have stood in the desk uttering winged words of comfort and guidance when so weak that they could scarcely keep their feet.

Hero Invalids.

In the realm of action as well as of words, we find our hero invalids, prolonging their own lives and increasing their happiness by their self-forgetful labours for a dying world. The late Dr. Finsen, of Copenhagen, was such an invalid. His magnificent researches resulting in the discovery of the light cure for lupus were all prosecuted under the clouds of a mortal malady. While striving to heal others, he himself was daily suffering extreme pain and weakness, walking as it were on the very edge of the grave. When he finally succumbed to the inevitable, it was with the joyous consciousness of having, by his arduous labours, contributed very materially to the health and happiness of his fellow men. In doing this he also probably lengthened out his own life, for the disease of which he finally died usually proves fatal within a much shorter period than it did in his case.

So much for the incurables, whose number is comparatively small, but whose case is not as desperate as one might think. Fortunately the vast majority of invalids can look forward with a good degree of certainty to very materially bettering their condition. Much will depend upon their mental attitude. Cheerful determination to get well, persisted in through every changing phase of the disease, has in itself healing power of the highest kind. But it should be combined with

Rational Physical Culture.

Must the invalid be a physical culturist?—certainly, and a patient, persistent one. Of course the instructions of the physician who may have charge of your case should be conscientiously carried out. Nothing should be done which he may consider harmful. Nevertheless there are many simple exercises which may be taken in bed, or if one is able occasionally to be up, in one's room, which will greatly facilitate recovery.

Strength comes from using the muscles. Not only do the muscles themselves become stronger by exercise, but the nervous system is strengthened, the heart and the other organs of the body get new tone, the circulation is quickened, and the appetite improved, and the whole mental atmosphere materially brightened. Let the chronic invalid begin systematically to use the muscles simply of the arms, hands and chest, doing just a little more each day, and the gain will be almost immediate. It matters not very much what the nature of the movements may be. Some very

good ones may be found in back copies of GOOD HEALTH; others will be given in forthcoming numbers. Each invalid will need to select such as are most suitable, and in the absence of these, a little ingenuity will invent others. The effort of mind required to devise exercises and put them into operation, will in itself have a favourable effect. After all, the invalid must *work out her own salvation*; recovery will depend more on her attitude and the extent to which she heartily co-operates with nature than upon anything the doctor may do for her.

Deep breathing is a form of exercise that even very weak invalids may practise, and always to great advantage. Half a dozen long, deep breaths taken three or four times a day will often increase the vitality to a degree scarcely believable. Straining should be carefully avoided, but as much spirit and life should be put into the movements as possible. Fill every nook and corner of the lungs with pure fresh air, then slowly expire, keeping the windows open meanwhile to ensure an abundant supply of the life-giving oxygen.

Invalids able to be out-of-doors should exercise this privilege to the utmost. There is health in the open-air which cannot be found in the best ventilated house. Cultivate a love for nature in all her moods. Never stay in-doors because of the weather. Dress warmly, yet not too warmly, and get out. Walk briskly, taking long deep breaths. It is often well to observe a certain rhythm between the steps and the breaths. Take ten steps while inspiring, and eight while expiring, and breathe as evenly as possible. Of course keep the chest well to the front and the head erect so that there may be no hindrance to the fullest lung expansion.

Some things the invalid must avoid, notably the habit of thinking about his symtoms, and letting the mind dwell on aches and pains. Health never comes through thinking of disease. If you wish to be an invalid always, this is a pretty sure way of having your wish fulfilled. Of course one way to avoid thinking of disease is to quit talking about it. If your friends broach the subject, give the conversation another turn at once, or speak briefly of your *improvement*—of some encouraging feature. The only individual to whom you should ever state your exact symptoms is your doctor, and then only as far as is necessary to answer his questions. As a general rule, the less you tell him, the more he will know about your case.

Let the mind expand with love and regard for others. There is much suffering in the world. You may not have more than your share, and if you relate yourself rightly to it, the result in the long run must be beneficial. Such is the decree of a kind Providence.

Don't forget that healthy people have their troubles, too. Those who are waiting on you day by day may be as much in need of love and sympathy as you feel yourself to be. Keep this important fact in mind, and it will sweeten your relations wonderfully. Moreover, you will gain much in the more efficient care received. For it is a well established fact that no human being can do his best except in a reasonably sympathetic environment. If your nurse feels that you understand and sympathise with her, she is then in a condition to do for you far more than she possibly could do under other circumstances even with the best of intentions.

Finally, be radiantly hopeful; look on the bright side of things; note every sign of improvement in your condition, and be quick to make the most of it. Remember that an invalid by making wise use of limited strength may often accomplish far more than a strong, healthy person. Life may yet have many bright experiences for you. Therefore get ready to enjoy them by making the most of present opportunities. Cultivate healthy thoughts and sentiments and they will in time under the Divine blessing, ripen into a blessed harvest of physical health.

Bobby.—"Mamma, would it make any difference if the baby took all his medicine at once?"

The Baby's Mother.—"Heavens! Yes!"

Bobby.—"But it hasn't made any difference!"—*Life.*

* *
*

"IT takes a good many things to make a home, and forethought is one of the indispensables—forethought, not merely for food and comfort, but for culture, recreation, employment, happiness."

QUESTIONS AND ANSWERS.

Our correspondents are requested to enclose a penny stamp with their questions, as it is often necessary to answer by post. No attention is paid to anonymous communications.

Boiled Water and Kidney Stone.—E. L.: —"I am in the habit of drinking water that has been boiled, but find that it is not as clear as unboiled water. 1. Does it contain more lime or solid substance? 2. Is the drinking of boiled water likely to cause the formation of minute calculi in the bladder or kidneys?"

Ans.—1. No. On the other hand boiling water reduces the amount of mineral matter. Distilled water is usually preferable to boiled water and is the purest water known. The Gem Supply Company furnish an excellent still at a moderate price, and the expense of running it is a mere trifle. 2. No.

Superfluous Hair.—M. T.: "1. Will you kindly give me your opinion as to the removal of superfluous hair on the face? 2. Would it be a permanent cure to have it removed by electricity?"

Ans.—1. Let it alone. 2. Yes, but the operation is a dangerous one except in the hands of an expert, and even then there is a chance of scarring.

Corns—Archibald's Oatmeal Cream—Whalebone Hair Brush.—H. L.: 1. "Kindly inform me what can be done for bad corns. 2. Can you recommend a vegetable cream for face use? 3. Is a whalebone hair brush too rough for the scalp? 4. Is enclosed quantity of hair too great a loss for one day?"

Ans.—1. Apply the following solution with a pointed piece of hard wood: one drachm of salicylic acid to one ounce of collodion. 2. We believe you will find Archibald's Oatmeal Cream satisfactory. 3. Yes; as a rule it is better to use a softer brush. 4. Yes.

Kneading the Stomach.—J D.; "I see that you recommend in GOOD HEALTH kneading of the stomach for indigestion. 1. How often do you recommend the kneading each day? 2. How long each time?"

Ans.—1. Two or three times each day, according to convenience. The kneading should be gentle and accompanied with stroking. 2. Five to fifteen minutes.

Spinal Curvature—Biliousness—Appendicitis.—"Mother": "1. Can anything be done for inward curvature of the spine in a girl of thirteen? 2. What is good for biliousness caused by the liver being out of order? 3. What is appendicitis?"

Ans.—1. Yes, as a rule. You should consult a physician who will give you directions for the treatment, which will probably consist of certain exercises combined with massage, manual Swedish movements, and similar procedures. 2. A fruit diet for two or three days with free water-drinking, and fomentations to the liver, or a hot liver pack daily for a week. 3. Appendicitis is an inflammation of the vermiform appendix. The latter is a small appendage attached to the beginning of the colon.

The Food Value of Linseed.—P. R. J.: "Kindly let me know through the correspondence column of GOOD HEALTH, 1. The food value of linseed. 2. Is it beneficial for indigestion? 3. In what form is it to be taken?"

Ans. We do not recommend linseed as a suitable food for human beings. As an infusion it is often used to relieve cough, or stimulate the action of the kidneys. Linseed oil is given for constipation, and is regarded as a mild laxative.

Ventilation of Rooms.—H. S. P.: "1. Kindly tell me how far a window should be left open in a bedroom. 2. Should it be closed when the weather is foggy?"

Ans.—If the room is comparatively small, and there is only one window, have it open from three to six inches, both top and bottom, during cold weather; at other times have it as wide open as possible. 2. No, but you can largely prevent the entrance of soot and particles of dust by fastening a double thickness of cheese cloth across the openings.

Infantile Rupture.—H.T.W.: "1. Please inform me what you consider the best treatment for rupture in a baby girl of two months? 2. Also please give particulars of the 'Home Hand-Book of Domestic Medicine.'"

Ans.—1. A cloth bandage or band properly applied is the best means of overcoming the difficulty. Your family physician will show you how it should be adjusted. 2. This book may be had from the Good Health Supply Department, 451 Holloway Road, London, N., cloth, 18/6, sheep, 22/6, levant morocco, 36/-, post free.

Weak Chest—A.H.: "Will you please let me know what is the best treatment for a weak chest?"

Ans. - Clothe yourself warmly, using woollen underwear, such as the Sanis. Adopt a systematic course of Physical Culture, and do exercises for ten or fifteen minutes three times a day. Breathing exercises are of particular importance, and could be taken even more frequently to advantage. See that your rooms are well supplied with fresh air, both day and night, and that your diet consists of plain, nourishing food.

Nervous Debility—Loss of Flesh.—W.J.C., Belfast: "1. What would you recommend for a young man greatly troubled with kidney disorder, nervous debility, and bad circulation of the blood? He is weak, has lost flesh, and is now melancholy. 2. Kindly state the diet that would suit him best."

Ans.—1. A course of tonic treatment at the Belfast Sanitarium, 343 Antrim Road. 2. Fruit, both fresh and stewed, dextrinised breads and biscuits, well-cooked grains, nuts, nut foods, and a few of the finer vegetables, and also cream and eggs if they agree with his stomach.

Good Health,

Illustrated Monthly Magazine Devoted to Hygiene and the Principles of Healthful Living

Edited by

ALFRED B. OLSEN, M.D.

M. ELLSWORTH OLSEN.

Editorial Contributor

GEORGE THOMASON, M.D.

Managing Editor:

M. ELLSWORTH OLSEN.

[The managing editor is responsible for all unsigned editorial matter]

Business communications should be addressed to **Good Health, 451 Holloway Road, London, N.**

All communications referring to editorial matters should be addressed to the Editor, GOOD HEALTH, 451, Holloway Road, London, N

Telegraphic Address: "Uprising," London

GOOD HEALTH may be ordered through any newsdealer.

The cost of a yearly subscription, post free, is 1/6.

Indian Edition: Yearly subscription, post free, Rs. 2. Indian office: GOOD HEALTH, 39/1 FREE SCHOOL ST., CALCUTTA.

West Indian Edition: Price, 3 cents per copy. West Indian Office: International Tract Society, Port of Spain, Trinidad; and Kingston, Jamaica.

S. African Edition: Office: 56 Roeland St., Cape Town, S. Africa.

April "Good Health" will contain a valuable article on the **Care of the Teeth** from the pen of Dr. J. J. Bell. He will discuss the cause of early decay of the teeth, and give advice how to prevent such decay. He will also show that the teeth as well as the muscles, require exercise in order to keep them in a healthy condition.

We publish this month the first instalment of Dr. Bryce's instructive article on the **"Waste and Repair of the Body."** This is a subject of great importance to all our readers, and we bespeak for the article a careful perusal. The author deals with the vital phenomena concerned in assimilation and disassimilation in a simple, lucid manner. His illustrations are apt and serve their purpose admirably. Next month we will publish the second part, after which two further instalments will appear completing the paper.

THAT there are a large number of impure, coloured, and highly-scented soaps on the market must be obvious to all our readers. Many of these are irritating to the skin and injurious to health. "Komplxshn" is a skin soap made from pure olive oil without any alkali, fatty substance, or colouring matter. The one object of the manufacturer has been to produce a perfectly pure soap that should not only be free from injurious substances but exert a healthful influence upon the skin and possess curative properties. A large tablet may be obtained post free by mentioning GOOD HEALTH, and sending five penny stamps to "Komplxshn," 48 Navarino Road, Hackney, London, N.E.

THE SCHOOL OF TO-DAY.

To the Editors of GOOD HEALTH:—

Sirs:—As an interested reader, I would venture some observations upon your excellent criticism of "The School of To-day" [January number]. Criticism can only be of value if the critic's ideals are lofty and his conclusions well premised; and the motto of your magazine is in this respect much expressed in little. Accepting that "education is the complete and harmonious development of the normal capacities of man" it is more than strange that the culture of the intellect should have so far dominated educational thought as to minimise its important correlative of physical education. The cult of the physical is the primary duty of the individual, for Spencer's words are true, that to be successful we must first be "good animals." In our criticisms of the system of elementary education at present existing, and in which many defects are to be observed, the appointed educators of our young life should receive our first attention. The majority of the elementary scholars of our country are under the direct influence of teachers whose chief qualification is a book knowledge of several abstract subjects combined with a proficiency in certain mechanical arts. They may elicit the answers that "the Equator is a menagerie lion running round the centre of the earth," and that air is mainly composed of two gases (oxygen and nitrogen) whose names chiefly suggest to the scholar a well-advertised form of beef extract (Oxo) and visions of some escapade in the dark. A cursory acquaintance with the various grades of elementary teachers would seem to reveal the fact that there is no professional or personal obligation to learn the elements of bodily and mental hygiene. The possession of a vaccination certificate and the necessary years is still the sole qualification of a large proportion of the elementary school teachers, and the higher grades of the profession (the "trained" and "certificated" teachers) have proportionately a minimum acquaintance with physiological and psychological principles. The crux of the failure of the common school of to-day appears to rest upon that part of our educational system which continues to regard the theoretical knowledge of an intellectual pabulum as sufficient to qualify any person for the proper and complete discharge of the duties of public educator. It cannot be expected that the physical education of the child will be accorded its important place in our school curricula so long as the teacher is unacquainted with the more simple facts of physiology and hygiene. In any reform of "the school of to-day" there must be the reform of the system which determines the qualification of the educator and recognises him accordingly.

"H. R."

The April number of "Good Health" will contain a timely article on "**Spring Pick-me-ups.**" At this season of the year many people feel the need of a tonic of some kind, but do not know what to take. The article will contain practical advice in reference to this subject, and offer "pick-me-ups" that do really strengthen and lift up.

GOOD HEALTH will be sent to any country in the Universal Postal Union twelve months for the small sum of 1/6. There are doubtless many of our readers who have relatives and friends living abroad who would appreciate a year's subscription to the magazine. Send the name and full address with postal order or stamps for 1/6 and GOOD HEALTH will be sent promptly for a full year. Each number of the magazine contains thirty-two pages or 384 pages in a year. Considering the large size of the page this practically means a book of about 1,000 pages for only 1/6. GOOD HEALTH already enjoys a large subscription list which we should like to see doubled during the next few months.

The Breakfast should always be plain and simple, but substantial. A large variety of food is neither necessary nor desirable. A well-cooked porridge served with rich milk, brown bread and butter, zwieback, and fruit, both fresh and stewed, makes a very satisfactory meal. Most grains require from three to five hours of cooking, and this is often inconvenient if not impossible. But it is not necessary, for in Ralston Breakfast Food we have an article that can be prepared for the table in half an hour or less. It consists of granulated wheat, and is prepared from the whole grain, in such a way as to preserve all the good properties. Nothing whatever is added to the food. Wheat is the choicest of all the grains, and properly prepared, may well be considered the natural food of man. The proportion of albumen (the nitrogenous food) to starch in wheat is considered to be just what is required by the human body.

Ralston Breakfast Food has the double advantage of being not only pure and wholesome but also economical from a money standpoint. This is a great consideration and places the food within reach of all classes including the very poor.

Our readers can obtain a large sample sufficient o furnish breakfast for five or six people by mentioning GOOD HEALTH and sending two penny stamps to the Ralston Purina Co., 43 Great Tower Street, London, E.C.

For Falling Hair.—Walton's Petroleum Hair Lotion will remove scurf and dandruff and help to produce a fine head of hair. Perfectly safe, pleasantly perfumed. 2/- per bottle, post free. Address, S. A. WALTON, 190 Broadhurst Gardens, W. Hampstead, London, N.W. (Advt.)

Why Suffer with Catarrh?

Get the Magic Pocket Vapouriser; a simple, convenient, and effective instrument for the treatment of Catarrh, also diseases of the nose, throat, and lungs. **PRICE, 4/- POST FREE.** With attachment for treating the ear, 6/-.

When ordering ask for our free booklet telling all about Catarrh and Its Treatment.

GOOD HEALTH SUPPLY DEPARTMENT,
451 Holloway Road, London, N.

A Seaside Home.

Conducted on Food Reform principles.
Delightful location, near the chines, pleasure gardens, and town.
Highest recommendations.
Accommodations,—exceptional.
Charges,—moderate.

—o—

Write for terms mentioning GOOD HEALTH.

Mrs. Hutteman-Hume, "Loughtonhurst,"
West Cliff Gardens, Bournemouth.

Heide's Specialities.

Zwieback (Brown and White) a specially prepared predigested bread, invaluable to dyspeptics and invalids; used in the Battle Creek Sanitarium. 6d. per lb. Sample packet for 6d. in stamps.

Superior Health Biscuits, shortened with nuts.

Maker of Dr. Allinson's Wholemeal Bread.

Agent for all the foods of the International Health Association. Orders to the amount of 2s. and upwards delivered free in West London. Try **HEIDE'S HYGIENIC CAKE,** 10d. per lb. A triumph in healthful cake-making. Absolutely pure, free from chemical essences, etc. Agents wanted.

Address: **J. HEIDE,**
332 Portobello Rd., London, W

Walkerton Sanatorium, Leslie, Fife.

Special attention given to Diet and Exercise. Physician, John Haddon, M.A., M.D (late of Hoeles, Manchester). For terms, apply to Mrs. Livingstone.

GOOD HEALTH LIBRARY.—No. 1, Biliousness; No. 2, The Food Value of Alcohol. One Penny each, or 1½d. post free. Both, post free, 2½d. No. 3, 100 Hygienic Recipes, 2d; post free, 2½d. Address, Good Health Supply Dept., 451 Holloway Road, London, N.

VOLUMES one and two of GOOD HEALTH are neatly bound in separate books, and with their large variety of illustrations and articles dealing with important health topics, make excellent books for reading and circulation.

Price, only 2/- each, postage, 4d. extra.

Order of Good Health Supply Department, 451 Holloway Road, London, N.

Have YOU Tried

BRUNAK?

Dr. Allinson's New Drink Instead of Tea or Coffee.

Dr. Allinson says:—

"BRUNAK is as refreshing as TEA; as tasty as COFFEE; as comforting as COCOA; and as harmless as WATER. Is as easily made as either of them, and can be taken at any meal or at supper time. There is not a headache in a barrel of it, and no nervousness in a ton of it. May be drunk by young and old, weak and strong, the brainy man or the athlete; also by invalids, even in diabetes."

All who suffer from Nervousness and Palpitation, Headache, Wakefulness, Loss of Memory, Low Spirits, Flushing, Trembling, and all who cannot or should not take tea, coffee, or cocoa, may take BRUNAK with perfect safety.

BRUNAK

is sold by Agents and usual Cash Chemists, Grocery and Co-operative Stores in 1 lb packets at 1s. each; or list of agents and sample post free, or a pound post free for 1s., by—

The NATURAL FOOD Co., Ltd.,
21 N, Patriot Sq., Bethnel Green, LONDON, E.

Vegetarian Cook required for house in the country, close to station, Hertfordshire, 22 miles from London. Apply A. B., c/o GOOD HEALTH, 451 Holloway Road, London, N.

The Temperance Record is a monthly review which contains valuable matter with regard to temperance reform problems. The January number is especially instructive, containing reports of the committees investigating the effects of drink upon the strength of the people of Great Britain; also the discussions of our foremost temperance advocates as to the best and most direct means of suppressing the use of intoxicating drink. Published by Richard James, 3 and 4 London House Yard, London, E.C. Price 1/-.

"*Balance in Diet*," a pamphlet by Alice Braithwaite, calls attention to the proper balance between acid and alkaline foods. Price twopence, post free. Published by the office of the *Scottish Health Reformer*, Meiklerings, Paisley.

"*The Food of the Future*" by E. W. Forward is a very interesting book published by George Bell & Sons, London, dealing with arguments in favour of vegetarian diet. The subject is considered with relation to tradition and the idealism of poets, ethics, and political, social, and domestic economy. It treats of the chemistry of foods, the endurance of vegetarians in general, and of athletes. The arguments are sound, and must appeal to all interested in diet reform. Price 1/-.