

Herald of Health

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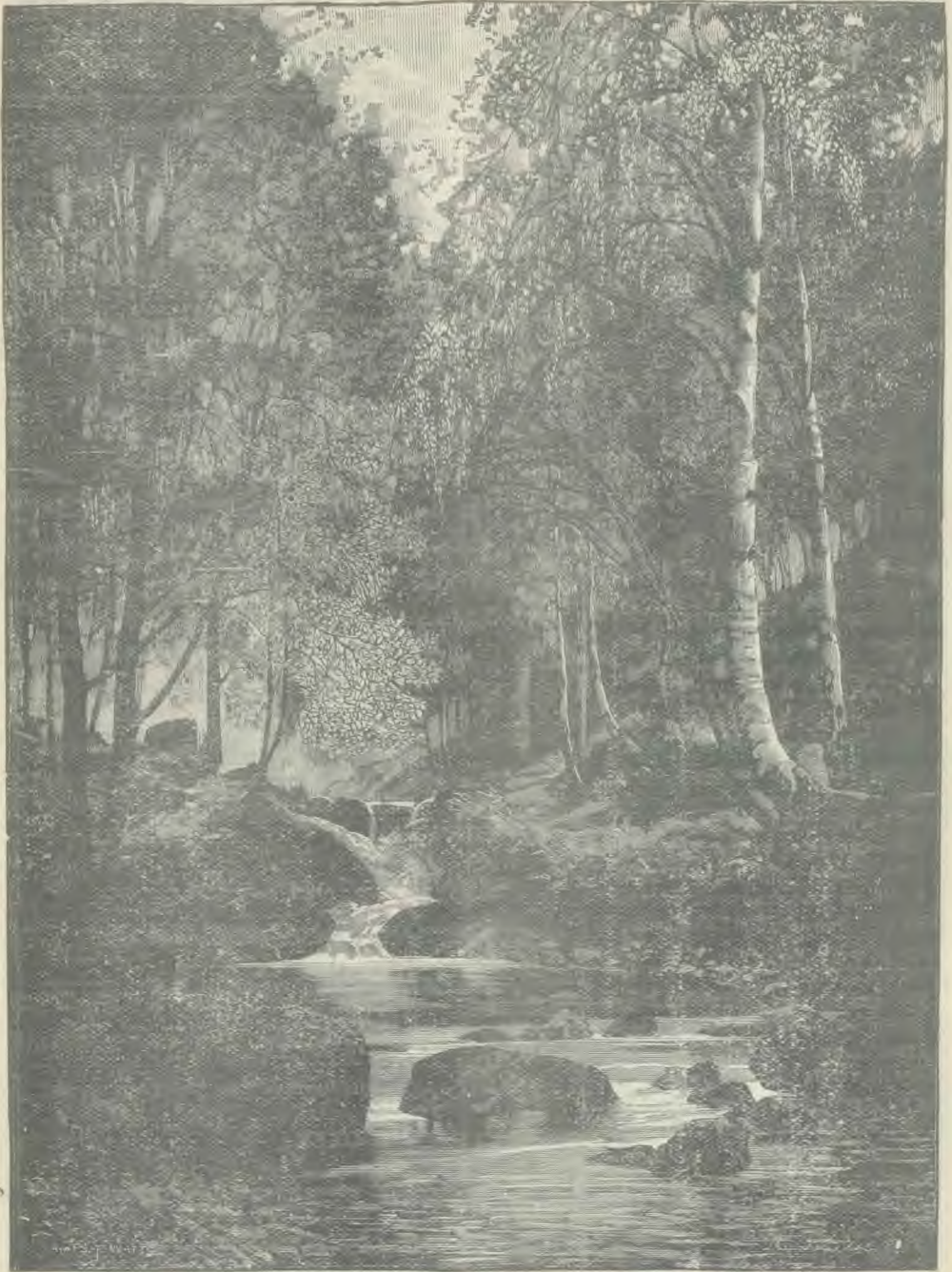
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NEAR TO NATURE'S HEART.





General Articles

Hysteria—Its Treatment

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

IT is always well to treat both body and mind in dealing with hysterical patients. The first step is to secure the complete confidence and faith of the patient without which little or nothing can be done. Consummate tact is required, and moderation, yes, and firmness mingled with gentleness and kindness. Make it clear to the patient that the symptoms are not grave or even serious, and lay stress upon the fact that the disease is curable, and that, with the hearty co-operation of the patient, successful recovery is sure to ensue.

The patient wants change of scene and association and almost invariably gets on better away from relatives and friends. The Weir Mitchell rest cure combined with gentle tonic baths, electricity, daily massage and a nourishing, but at the same time, non-stimulating diet, with an abundance of fresh air are the best measures to adopt. The various procedures of hydrotherapy are most valuable, and phototherapy including radiant heat baths, high frequency for the anæsthesia of the skin, diathermy for invigorating the patient with warmth, medical gymnastics carefully regulated according to the strength and condition of the patient, and under the direction of a physician who is familiar with this treatment—these are all most valuable agencies in dealing with hysteria. Brief tepid, or cool baths, neutral full baths (97° to 98° Fahr.) salt glows, tepid or cold wet hand rubs, mitten frictions, cold sprays and douches, and the Aix or Vichy douche massage, are all useful measures for restoring nerve tone.

The Diet.

While the diet should be ample and nourishing it is a mistake to think that these patients are benefited by the "feeding-up" system. The majority of hysterical patients are already over-fed, and they would benefit from a reasonable restriction of their food allowance. Some patients feign going without food and take very little or scarcely anything at meal-times, but if they are watched closely they will be found to supply themselves in abundance between meals, at least in the majority of cases.

Stimulants and narcotics, all of which have an exciting and irritating effect upon the nerves, should be cut off from the dietary. These include not only alcoholic beverages, both weak and strong, but also tea, coffee, and cocoa. It is a well-known fact that tea is bad for the nerves and this is especially true of neurotic patients. Experience has also shown that hysterical patients do better on non-flesh diet. There is no doubt but that butcher's meat, more or less rich in various organic extractives, also has a somewhat exciting and irritating influence upon the nerves. Animal flesh too is more likely to cause auto-intoxication by the absorption of poisonous wastes from the alimentary canal and it encourages constipation.

A fruitarian diet on the other hand possesses all the advantages that nervous patients require. It is nourishing and when properly selected, combined, and prepared, is easy of digestion. Almost all fruits have a gentle, laxative effect upon the bowels and serve to regulate them. A fruitarian diet has a sooth-

ing and quieting effect upon the nerves, and the change of diet alone is often productive of good results. Fruit, both fresh and stewed, may be used freely, and salads, with the use of lemon juice instead of vinegar, will be found most valuable. Nuts and nut preparations, various vegetables and greens, grain and cereal foods, cream, milk, butter, and eggs—these are the articles of diet which we would recommend for all patients suffering from hysteria. The food should be well cooked and but a small variety, served at one meal. As a rule three meals a day are ample, and the practice of taking snacks between meals should not be encouraged.

Sweets, candies, jams, marmalades, preserved fruit, sugary foods, cakes, pastries, and all rich and highly seasoned dishes should be avoided. The plainer and simpler fare the better. Condiments, with the exception of the very sparing use of salt, should find no place in the cooking or on the table.

Medicine and Drugs.

Hysterical patients very soon develop a marvellous capacity for taking drugs and medicines of all sorts and are liable to do themselves incalculable mischief. They are rarely contented with what the doctor prescribes, and are inclined to supplement it by various proprietary and patent medicines which they find advertised in the public press. The habit of drug-taking is soon formed and although there is no sign of improvement they nevertheless imagine that the various pills and draughts are doing them good and that they could not get along without them. Such patients are extremely susceptible to the use of habit drugs such as alcohol, opium, morphine, cocaine, chloral, veronal, and other similar preparations, not to mention bromides. When we realize that all these drugs produce the supposed beneficial effects by paralyzing the nerves and rendering them still more irritable and excitable, it must be unnecessary to say their use should be strictly forbidden. So called tonics too are of little, if any, value, and it

is far better not to rely upon them at all. What we have said about drugs applies with particular force to all advertised preparations, and grave warning should be given of the disastrous results that these are likely to produce. Liver pills, stomach tonics, blood purifiers, and so called nerve and brain foods, are one and all a humbug and a delusion. No possible real benefit can come from their use, but much harm.

Most victims of hysteria suffer more or less from sleeplessness, or at least they think they do. Furthermore, they often complain of a "faintness" or "all gone" feeling in the night time and they are accustomed to taking food and food drinks at all times of the night. Eating at night is one of the surest means of disturbing sleep and causing unpleasant dreams. A warm bath or a neutral bath for ten to thirty minutes immediately before retiring will oftentimes soothe the nerves and bring on sleep. In other cases a tepid or cool sponge with equal parts of alcohol and water will prove refreshing and help to encourage sleep. Some are benefited by a hot foot bath, which has the effect of drawing the blood away from a congested head, thus equalizing the circulation. Hot fomentations to the spine, in some cases to the stomach when there is indigestion, also relieves congestion of the head. Sometimes the application of a cold compress over the forehead or the nape of the neck will be more effectual in relieving congestion of the head than hot applications to the extremities. It is always important to see that the feet are warm and that the bed is both dry and warm, but not overheated.

A gentle massage of the spine, or the head, or the limbs after retiring rarely fails to bring about a restful condition favouring sleep. A mild electric current either galvanic, faradic, or sinusoidal, has proved successful when other measures have failed, and is certainly worth trying in all obstinate cases of sleeplessness. It seems scarcely necessary to point out that the bedroom must be well ventilated and supplied with an abundance

of fresh air, for a good supply of oxygen is always necessary for sound sleep.

Sleepless patients should be very careful to avoid all narcotic drinks, including tea, coffee, and cocoa, as well as alcohol. Tobacco too should be strictly tabooed by persons suffering from insomnia. Sleeping draughts are only mentioned to be condemned off hand. They should never be resorted to under any circumstances except on the direct advice of the attending physician, and even then only most rarely. All sleeping draughts are dangerous and it is a mistake to think that any of them are harmless or safe. The very fact that they possess the power of paralyzing the brain cells and inducing artificial sleep ought to be sufficient evidence of the great danger that lurks in these drugs.

When the patient is able to be up and about she should be encouraged to get out of doors in the fresh air daily, and go for walks, drives, cycle rides, and also play games of various kinds, such as golf, lawn tennis and croquet. There is no doubt but that an active out-of-door life is one of the best means of insuring sleep.

Dealing with the Fit.

It is well to give as little attention as possible to the fit and to explain that it is a matter of minor importance. In many, if not most cases, it is wise to state emphatically that the fits can be controlled, but one will have to use a great deal of tact and diplomacy in dealing with the patient. Cer-

tainly this is not a case for sympathy, which would only aggravate the trouble and increase the number of fits. When a patient is taken with a fit all bands and all constricting things should be loosened about the neck and waist, and an abundance of fresh air provided. A liberal dash of cold water over the face and chest is an excellent procedure and can be safely applied in the majority of cases. The fits are not dangerous and the patient usually takes good care not to get hurt in any way, so that it is rarely necessary to do anything more. If the patient falls on the floor, put a pillow under the head and cover with a blanket to protect from catching cold, and then leave her for an hour or two. Afterwards assure the patient that the attack was a very mild one and did not amount to anything. If the water is used wisely and freely, and the fits are ignored as a trivial thing, it not infrequently happens that they are speedily abandoned as being too uncomfortable and not worth while.

After the patient has been away for a rest cure or other treatment, on her return home she should be placed in as bright and cheerful an atmosphere as possible and provided with a reasonable amount of pleasant and wholesome diversion. After sufficient rest and recuperation, suitable occupation is necessary, for useful employment which is free from worry and anxiety is one of the best preventatives against a further attack. It is not the work that brings on hysteria, but rather the want of something to do.



The Role of Mineral Salts

G. H. HEALD, M. D.

SMUGLY and complacently we have elaborated our dietetic systems, based largely on the proportion of the organic elements of the food,—protein, carbohydrate, and fat,—contenting ourselves, as regards the mineral constituents, with the thought that these are less important, or if they are important, that we probably obtain sufficient of the various salts from any mixed dietary.

Anyhow we did not know much about the salts, and we did not worry about them. We were satisfied if the food contained a certain minimum of protein and fat, and sufficient carbohydrate to yield a certain number of calories, according to the weight, age, etc., of the individual.

It is true there were a few men not recognized in medical circles, who emphasized the importance of a proper balance of the mineral salts; but all such teaching was practically unheeded.

Recently there has been a cry raised in widely separated localities and as regards very different diseases, that these diseases are made possible, or at least greatly favored, by the absence in the tissues of certain minerals or by the preponderance of others.

When we have a simultaneous cry by such men as Russell and Van Giesin, that tuberculosis is caused, partly at least, by lime starvation; by Horace Packard, that cancer is caused or favoured by the lack of certain mineral salts; by Aulde, that acute and chronic non-infectious skin diseases are due to a lack of lime in the system, and a consequent deposit of magnesium in certain of the tissues,—when, in accordance with these theories, these men have treated patients with gratifying results, it is time our physiological chemists should make an exhaustive study into the role of the various mineral food salts in human nutrition.

If some of us are sick because our food

lacks certain salts, or because we do not properly assimilate them, we ought to know it.

It is a notorious fact that meats are not all-round foods. They do not contain the bone-making material. Certain of the salts found largely in the blood and bones are practically absent in the meats.

White flour is practically robbed of its mineral salt, as are potatoes, when peeled and boiled.

Many other vegetables are so cooked that the important mineral salts are thrown away with the water in which they are parboiled.

Flesh-meats, white flour, and boiled-out vegetables!

Is it any wonder that a raw food propaganda, which has nothing to recommend it except that it retains these mineral salts, has had such excellent results in certain cases?

Is it any wonder that Dr. Bulkely had marvellous success in certain skin affections by dropping the old meat dietary?

Can we be surprised that the prevalence of cancer has apparently increased proportionately with the increase in the eating of meat (and white bread)?

Can we wonder that physicians have found in the dietetic treatment of tuberculosis that milk and eggs (rich in lime) are superior to meat (poor in lime)?

Perhaps some day we shall fully realize that the proportion of lime, magnesium, iron, etc., in our foods is as important as the proportion of proteins, fats, and carbohydrates, possibly even more so.

But why has not the human race run into the ground long ago if this be a fact?

The answer is simple: It is only recently that we have to a large extent eaten such mineral-poor-foods as white bread, boiled out vegetables, and meat.

The consumption of these articles has greatly increased within the last generation. Are we now paying the penalty?

Tea and Coffee

DANIEL H. KRESS, M. D.

Our Modern Beverages

THE use of stimulants is becoming almost universal. For the future welfare of the race, it seems important that the injury resulting from their use should be clearly understood by all.

The word "stimulant" is derived from a Latin word meaning *to goad* or *to urge on*. A stimulant acts as a goad or a whip. It urges one to do that which he feels disinclined to do.

By some, alcoholic beverages are employed for this purpose. Others, who are acquainted with the injurious nature of alcohol, resort to stimulating beverages against which there exists no popular prejudice.

When Feeling Ambitionless

When a person feels a lack of energy, or feels ambitionless, a cup of tea or coffee appears to impart new life. This has naturally led to the belief that beverages that are capable of exerting such decided effects must in some way impart energy. Yet they possess practically no nutrition. For instance, it would require all the nutritive properties contained in five hundred cups of tea to sustain a man for a period of twenty-four hours.

Stimulants can in no sense be termed foods, and can never take the place of food. They do not impart energy nor build up or repair tissue. Man derives energy from food, not from stimulants.

Assisted by the Whip

The fact that stimulants are everywhere sought is evidence that the vitality of the race is at a low ebb. It is not well, however, for one who lacks energy, to resort to stimulants. The tired, worn-out horse, attempting to draw a heavy load, may be assisted with a whip, and may appear greatly improved and strengthened thereby.

The whip does not impart energy. It dissipates or draws upon the little that nature would wisely have reserved for other and more important purposes. All the energy

we possess can not be expended in mental or muscular work. The organism needs to hold in reserve a certain amount for the heart, to enable it to pump the stream of life through the system. Some of the energy must supply the digestive organs, so that they may be able to digest the food. The function of the liver, the kidneys, etc., must also be sustained by it. To draw upon the supply held in reserve to carry forward the important work of these organs, must sooner or later result in serious injury, for upon their proper function the health of the body depends.

Energy Granules

The brain cells of a healthy individual are well-filled with what are known as energy granules. After a hard day's work, instead of being plump and well-filled, they possess only a few of these granules.

When the brain cells are in this state, mental and physical effort should cease, and the needed rest and sleep should be taken to enable the cells to be recharged. It has been observed, however, by users of stimulants, that when this feeling of fatigue occurs, a cup of tea or coffee apparently answers the same purpose as rest, for it imparts a *feeling* of strength, and causes the tired feeling to disappear. The cup of tea adds no energy granules to the exhausted cells. It merely enables one to utilize for muscular or mental effort the few remaining energy granules.

Unnatural and Destructive Methods

The habitual users of these beverages never afford an opportunity for nerve cells to become fully stored with energy. Fulness of life is therefore never experienced by them. Users of these beverages awake in the morning feeling tired, unrefreshed, and exhausted. They feel that they could much better dispense with breakfast than with the accustomed morning cup. Several hours are required for food to digest, and for the en-

ergy stored up in it to be liberated, while the cup of tea or coffee affords an immediate supply of energy by drawing upon the partially depleted nerve cells.

Working on Borrowed Capital

It is evident that the user of these beverages is carrying on business on borrowed capital and must eventually become a mental and nervous wreck. The modern use of such stimulants no doubt accounts in part for the many nervous diseases and the rapid increase of insanity.

A Poison in Reality

The real constituent that is responsible for

the stimulation experienced by the tea and coffee drinker is an alkaloid or poison, and is almost identical with others that we frown upon. Theine is derived from the tea leaf, caffeine from the coffee berry, theobromine from the cacao seed, strychnine from the seed of *nux vomica*, morphine from the poppy. These all act upon the nervous system in such a manner that one dose invites the second, the second invites the third, and the third *demand*s the fourth. Thus these habits become fixed, and we do not realize that we are slaves to them until an effort is made to abandon them.

Nothing but a Cold."—(Concluded.)

BY JOHN B. HUBER, A. M., M. D.

DESPITE our anti-tuberculosis propaganda of a decade and more past—a propaganda which is so fundamentally grounded in fresh, pure air—people continue in an amazing way to fear this most precious of all gifts vouchsafed to sentient creatures. The antipathy for fresh air is in principle essentially the same as that which the tramp evinces for soap and water. Fresh air abounds everywhere in the cosmos, except in the enclosures which man has built, in which he chooses to live by far the most of his life. Not fresh air but the want of it is the cause of many diseases. "Without phosphorus there can be no thought," declared a German scientist; however that may be, it is certain that without oxygen there can be no life. Fresh air is nature's disinfectant; there is no better.

"And what other air is there to breathe at night save night air?" Here is an experience in point: I lectured one evening in a rural district on tuberculosis, and I dwelt as strenuously as I could on the beneficence of pure air. The village druggist was my host, and never was there one more genial or considerate—according to his lights. I hope his eyes will not meet this page, for I don't want him to think of me as violating the kindly laws of hospitality; my transgression here is

in behalf of our common humanity. When I sought to raise the windows of the sleeping-room which he gave me, I found all three of them *nailed* down beyond the possibility of being budged. And so I lay, either awake and gasping, or suffering the nightmares that were evolved from the toxemia in my blood—I mean the poisoning of that precious fluid. Had a good dose of pneumonia bacteria been added, to cap the climax of my sufferings, I think it would have been "all up" with me: for it is certain my night's experience had ideally predisposed me to such an infection.

As I have noted, there are epidemics of colds. From one case alone practically the whole force of an office, a workshop, or a factory will presently be suffering—and that acutely too. If an employee appears sneezing, snivelling, and his speech thick, he had best be sent home at once until he is recovered. Pay him his salary to keep away; no matter at what sacrifice his oblivion is effected, it will be found the more profitable in the end.

An ardent Darwinite believes that in the process of all-healing time, natural selection will render the human race progressively resistant to colds; because those most inured to

the minor maladies of life (among which he optimistically classed colds) are the most likely to have progeny to whom they have transmitted their superior resisting powers. Now this is all very well and very attractive in theory; and I have no doubt it is quite true and logical. But it generally takes a few million years for these evolutionary changes to be effected; wherefore in the meantime, and while we are waiting for their development, we have to do as much else as we can in the way of a rational prophylaxis against colds and catarrhs.

To begin with one should, in so far as modern living conditions will permit, lead the physiological life. He should rise betimes, bathe well, eat slowly three meals of wholesome food a day; should be in the open air a great deal; should drink generously of water, at least between meals; should be very moderate in, and should if possible abstain from, the use of alcohol and tobacco. Tea, the tiple of women, is drunk a great deal too much. One should avoid dusty, damp, or foul air; should work only in rooms well ventilated; should go to bed early and sleep at least eight hours; should wear suitable under clothing (wool or linen) all the year round, thick in the winter, thin in the summer. The night wear should be warm and of course changed from that of the day. Woollen socks should be worn in bed if the feet are cold. Warm footwear and stout, watertight shoes, preferably with cork soles, should be worn. Many women will not, but all women should, wear rubbers or "Arctics" or something of the kind in wet or snowy weather. "Put your chest protector on your feet," cover your chest well, of course, but not so much that free perspiration (upon which good health so much depends) will be impeded. Sleep with the windows open. Yet draughts must be avoided for all but the very robust; this is easily arranged for by the use of a screen or of a clothes-horse draped with a blanket. And live out of doors as much as possible; one can thus do more work

without fatigue and digest coarser food than is possible within doors. Pure air means the greatest possible oxygen content, and this means pure blood; and this in turn means well-balanced metabolism—the conversion of oxygen and wholesome nutriment into healthy tissues, so that a virile constitution results.

Both overeating and eating the wrong kinds of food are an erroneous factor in catarrh development. He who overfeeds is likely to catch cold; and what is worse, his cold is apt to become chronic and to invite the "mixed affections" which result in consumption and pneumonia. Dr. H. Campbell relates in the "London Practitioner" how he has in that city found catarrhs to be very rife among improperly fed children. Practically all the very young children of the London poor suffer (so he finds) from inflammation of some portion of the upper respiratory tract. I believe his is a correct conclusion: "I have been accustomed to attribute this to the absorption of poisons from the alimentary tract; but whatever explanation there can be no doubt that improper feeding is a causative factor, and that the best way to eradicate the trouble in these cases is to correct the disordered state of the digestive apparatus by enforcing a suitable dietary." Plain food is indicated for those with a catarrhal habit (that is for those who go sneezing and blowing their noses on the slightest provocation). No starches, no sugars for such a one; or at any rate these things in moderation.

As to bathing: Sir Almoth Wright recently told the English people that they bathe entirely too much; that bathing indeed, should be a rare procedure. Now, one ought, of course, to think twice before disagreeing with titled folk; and yet I beg leave to submit the following: The skin has important functions. It respire, secretes, and excretes. Therefore we should bathe well and frequently in order to keep the skin in as normal a condition as possible. As I have hinted, there is a vast peripheral sea of blood in the

cutaneous capillaries; and the better we keep this pure and oxygenated the healthier we shall be. A cold sponge bath on rising is a good tonic. But the bathroom should be warm; and vigorous friction with a rough towel should follow. A cold bath in a chilly room may depress a weak system; here tepid water should be substituted for cold. The feeble might stand, while taking a cold sponge bath, in a bathtub in which there is very warm water up to the ankles. A warm water bath at bedtime is excellent, if one can immediately get to bed without exposure.

One may escape colds by avoiding the infective agencies. When the papers tell of an epidemic, theatres and public buildings

had best be entered as little as possible; the imperfect ventilation in most of these structures renders them hotbeds of infection.

Any local abnormality or affection of the upper respiratory passages should be removed or cured, such as adenoids, enlarged tonsils, spurs, or hypertrophies. Breathe always through the nose; there are some people who prefer the mouth for this function, but they are misguided. Never eat without having first washed the hands. If one fears he has been exposed to infection he had best douche the nose and gargle with a solution, as hot as is comfortable, of table salt—one half teaspoonful in a tumbler of water.—*Journal of the Outdoor Life.*

The Small and Harmful Habits of Everyday Life.

HERBERT M. LOME.

IT is the little thing and not the big thing that counts in both the physical and the moral world. The massiveness of the elephant is impressive, but it is the invisible bacilli, harmful or beneficent, that in a sense control our bodily destinies. The spasmodic and magnificent charity of a very rich man may excite wonder and perhaps admiration, but it is the hidden self-sacrifice of the wealthless millions that makes life worth living on the part of those who are benefited by such sacrifices. Likewise, the small habits that one forms make or mar one, and it is with some of these latter that we shall attempt to deal in that which follows.

Many such habits are due to carelessness. Others are symptoms of some physical or mental defects. Still others are the offspring of stupid fashion or the fads of the moment. Not a few are the outcome of that streak of perversity in our natures that prompts us to do wrong when right is equally easy. Many may be traced to a combination of two or more of these causes. All make for the ill health of brain or body.

One of the more common of these habits is that of stooping, either when walking or sitting. This habit results from sheer laziness in some instances, from muscular weakness in others. As a result of it, the spine is thrown out of alignment and the body out of poise, the circulation of the blood in the head is disarranged, the breathing apparatus is cramped, and the work of the digestive organs is seriously hindered. The round shoulders and sunken chest give an appearance of inferiority and ill health; and the victim, not supplied with a sufficiency of oxygen, becomes anemic, weakened, and apathetic. As his digestive powers fail to supply him with a proper amount of nutriment, the enfeebled body invites disease.

A literary man, owing to his neglect to maintain a proper position while engaged in his daily labours, was badly afflicted with the "literary stoop." The inevitable ensued, and after a long siege with doctors and specialists whose ministrations gave him little or no satisfaction, he took the advice of a friend, and rigged up an arrangement of straps by

means of which his body was held in an upright position, while his arms and hands remained free. In a week there was a noticeable change for the better in his carriage. The straps were tightened from day to day, and his mental and physical health increased. At the end of two months, the stoop had disappeared, and, the lesson having been learned, the harness was given up. To-day, the gentleman is upright and strong.

Another very common habit that may be responsible for much harm is reading when in trains or trolley cars. This evil is accentuated when it is accompanied by artificial lighting. The motion of the car calls for a constant readjustment of the optical focus, the strain of which, plus the indifferent lighting, may result in serious injury to the sight. There is a possible relation between the habit of reading on the cars and the comparative frequency of eye-glasses on commuters.

Certain habits due either to a lack of tone in the nervous system or to want of respect for oneself or the sensibilities of others, are annoying to the onlooker, and call for self-examination on the part of those who practise them.

Thus there is the unpleasant habit of picking, rubbing, or scratching the nose. The first of these may be excused in children, but in the case of an adult it is disgusting, and moreover may lead to maladies of the delicate lining of the nasal cavities, due to irritation. Polypi, lupus (a type of cancer of the milder kind), enlargement of the nasal glands, and the impairment of the sense of smell, are some of the possible consequences of this habit. In order to effect a cure, an inquiry must be made into the cause, and steps taken to shape a fitting remedy, on the basis of the inquiry.

Hawking of the throat is sometimes the result of catarrh or kindred trouble, in which case resort should be made to some appropriate remedy. Often it is due to a selfish nervousness, which ignores the susceptibilities of others. In the latter instance, if no

attempt is made to check it, it is liable to breed an irritation of the mucous membrane of the throat that may develop into true catarrh.

As showing the force of habit in connection with clearing of the mouth or bronchial passage, the following is illustrative: An old man, well known to the writer, had, in his youth, worked in a cotton-ginning mill. In those days no precautions were taken to preserve the health of employees as now, and the atmosphere of the mill was, in consequence, full of flying particles of cotton, which were drawn into the nostrils or mouth of the workers by the act of breathing. The effort to get rid of them called for a constant spitting from the tip of the tongue, which, in the case of the old man in question, was accompanied by a sound that may be phonetically rendered as, T-r-r-u-u-t!

Finally, he came to New York and engaged in another business. But he never lost his habit of clearing his mouth of imaginary morsels of cotton at frequent intervals. As a result, his conversation ran something like this: "When I was t-r-r-u-u-t on Broadway t-r-r-u-u-t to-day, who do you t-r-r-u-u-t, t-r-r-u-u-t think t-r-r-u-u-t I saw coming along t-r-r-u-u-t? Georgie t-r-r-u-u-t Jones, t-r-r-u-u-t by t-r-r-u-u-t Jinks!"

In this instance, the habit was not without a touch of unconscious humour. In the case of the ordinary hawker, it is pregnant with revolting possibilities, to say nothing of the spread of disease germs, for which the trousered nuisance is often responsible. The term is used advisedly, for women are rarely guilty of this offense against decency and hygiene.

Biting the nails is usually indicative of an abnormal condition of the nervous system. The medical theory in regard to this and allied habits is that they are instinctive attempts on the part of the sufferer to divert his attention from the trouble that accompanies and causes them. In other words, relief is sought by means of a counter-irritant.

The principle involved is a natural one, and recognized in a therapeutic sense. Thus, if we strike or squeeze a finger, we forthwith press or bite it, the pain of the act nullifying that caused by the accident. In the same manner, nail-biting represents an attempt to relieve an unhealthy mental state by an act that causes a bodily sensation.

Here again, a cure can be effected only by treating the cause; this applying to adults as well as to children. The young, however, may acquire the habit through their strong tendency to imitate. In such cases, the good old remedy of bitter aloes applied to the finger-tips will often prove a sufficient remedy. The nauseous flavour will remind the small nail-nibbler of mother's mandates, and between the two, the habit gets the worst of it. The hand of the nail biter is never good to look upon. Neither is the thought exactly pleasant that he conveys to his mouth the dirt that has gathered under his nails. He nearly always suffers from "nail springs" and tender finger tips, while indulgence in his minor vice in the presence of others is not calculated to increase their respect for him.

Some physiologists assert that crossing the legs when sitting, interferes with the action of the intestines, and checks the circulation of blood in the abdomen and also in the lower portion of the leg so crossed. Within the past two or three years prominent members of the medical profession have even declared that the habit is responsible for many cases of appendicitis. It is the right leg that is generally crossed, say they, and this position brings about pressure on the vermiform appendix, which, long continued, induces the malady in question.

Another unpleasant practise is that of scratching the head. In some instances lack of cleanliness and a failure to use a fine-tooth comb explain this habit; but in others, like nail-biting, it is due to an obscure nervous condition. The clawing of the scalp is not pleasant to witness; and furthermore, it often results in eczema, or what is known

as scalp-itch. Sometimes the act is due to an attempt to relieve the irritation caused by dandruff or dirt that has obtained lodgment at the hair roots. In every instance the cause of the habit can be ascertained and eliminated; hence there is no excuse for its existence.

Some people use the toothpick in public, or "suck" their teeth audibly. No gentleman or gentlewoman—using the terms in the truest sense—would be guilty of either practise, for the reason that a consideration of the feeling of others is the dominant instinct of the well-bred. The toothpick has its place in the scheme of hygiene, provided that it is used in moderation and in private. But if it is constantly in action, it enlarges the spaces between the teeth, thereby robbing the bases of the latter of the protection that nature gave them through the medium of the close-fitting gum. The result is that decay is invited, and the services of the dentist are constantly in demand. Incidentally, the big spaces invite the lodgment of food morsels, and increase the need for using the toothpick. The person who practises the tooth-sucking habit should take counsel with his dentist.

Winking the eyes, rapidly and at frequent intervals, twitching the mouth or nose, wrinkling the forehead, twiddling the fingers, etc., are all indicative of some nervous trouble that either exists, or having once existed, has left behind it the habit. In some cases proper treatment is necessary; in others the victim must bring his will-power to bear on the affliction, watching and checking himself persistently. Let his self-esteem come to his aid in this connection. One who is cursed with a habit of this nature is either an object of pity or ridicule. In social and business life, such habits are grave drawbacks, the loss in personal pleasure and financial profit being serious.

THE conduct of our lives is the only proof of the sincerity of our hearts.—*Bishop Wilson.*



The Hygiene of Deep Breathing

WILLIM J. CROMI, INSTRUCTOR OF GYMNASIIC, UNIVERSITY OF PENNSYLVANIA.

THERE are modifications in normal respiratory movements in such acts as singing, crying, shouting, coughing, sighing, and talking, which require considerable nervous and muscular energy, and they have a beneficial influence upon the functions of the body.

To interfere with these acts is sometimes injurious. Take the child, for instance; it is not always best to repress its cry. Dr. Campbell claims that crying, especially in women, favours the proper expansion of the lungs, accelerates the circulation of the blood, deadens the effects of pain, and relieves nerve tension. Some one has said that women who are able to find relief in tears, keep their youth longer than those who repress them. Singing is beneficial because it develops the chest and tends to ward off diseases of the lungs. Professional singers are comparatively free from pulmonary disease. To be a public singer, one must have a good chest development and take both breathing and muscular exercises; in fact, the famous singer must live a hygienic life. I frequently have the students in the gymnastic classes sing a college song while performing dancing steps or other light exercises, not only for pleasing variety, but on account of the benefit to the lungs. Children should be taught to sing both at home and in school.

The act of shouting is emotional. The shouting of children at play is the outcome of exuberant emotion and pent-up neuromuscular energy, and the game or play is enhanced by this outburst. When I was a physical director in the Y. M. C. A. and had

more than one hundred boys between the ages of twelve and sixteen years in my charge, I often resorted to the following: When the boys were in school all day, under restraint, and bubbling over with neuromuscular energy, so I could hardly get their attention, I would take out my watch and announce that I desired every boy to shout and yell continually for the following five minutes. It always worked like a charm. In like manner, the hurrahs of the applauding multitude, the yells of frenzied baseball fans, the cheering of the spectators at a football game, may so exalt the emotion as to induce a condition bordering upon ecstasy. Shouting is an emotion that is spontaneous with both the individual and the mass, and should not be repressed. Women should shout at every opportunity, and if this is denied them, singing should take its place.

Yawning is another excellent lung exercise but is often repressed, especially in society. It seems to be an effort upon the part of nature to arouse one from a cramped or tiresome position of the body. There is a tendency to yawn and stretch when one awakens in the morning, and one should encourage these and stretch in every conceivable way. The cat yawns and stretches a great deal upon awakening, and usually the lower animals do nothing unnatural.

The act of laughing is very stimulating to the system, and an excellent form of breathing accompanies it. It is nature's device for exercising the internal organs and giving pleasure at the same time. Laughter begins in the lungs and diaphragm, setting the liver,

stomach, and other internal organs in a quick jelly-like vibration, which gives a pleasant sensation, and exercise almost equal to horse-back riding. It brightens the eye, increases perspiration, and expands the chest. That exquisite poise called health, which is over-balanced by a sleepless night, bad news, grief, or anxiety, is often righted and wholly restored by a good hearty laugh. "Laugh and grow fat" has become proverbial. A laughing, sunny person brightens and cheers every one with whom he comes in contact. Certainly laughter doeth good like medicine, not only to the physician who prescribes it, but to the patient who receives it.

Talking is an act that is beneficial, especially to the lungs. The nervous energy underlying thought is discharged to the muscles involved in speech and gesture. Both voice and gesture can be modified to convey subtle shades of thought and feeling, which can not find expression in writing. Talking, then, is stimulating in proportion to the gesture accompanying it. We can see how impressive gesture is in the movement of the arm in the German, and the shrug of the shoulder in the Frenchman, the minister, and the public speaker, in order to emphasize what is being said; and they thereby get more physical exercise than one would suppose.

School-teachers and those who use the voice much during the day need less physical training than others. In fact, few things are more calculated to stimulate the body or to arouse it from lethargy than animated conversation. In talking, as in laughing, singing, shouting, and crying, inbreathing is short, while outbreathing is prolonged, and this is an excellent form of lung gymnastics.

Dr. Campbell claims that talking is conducive to longevity.

Its Effects and the Best Kind of Exercises

Deep breathing highly oxygenates the blood and eliminates waste products from the body. There is an exchange of gases which takes place between the capillaries and the

tissues, in which the blood from the lungs parts with its oxygen, and absorbs carbon-dioxid, which is thrown out in the breath.

The brain is affected by deep breathing, as is shown by its tendency to cause giddiness, but this feeling soon wears off in those who cultivate the habit.

W. Marcet, M. D., F. R. S., says that deep breathing increases the power of sustained nervous effort. He claims that a man who in ordinary breathing lifted a weight of four pounds two hundred and three times in succession, after a rest and deep breathing for two minutes, lifted the same weight seven hundred times.

Deep breathing quiets the nerves and is useful in neurasthenia, as it increases the willpower. When troubled with insomnia, I have secured sleep by going to an open window and taking deep breaths for five minutes. I know of many others whom the same treatment helped.

Deep breathing will very often relieve constipation and indigestion, due to the vigorous rise and fall of the diaphragm. Add to this the influence of powerfully oxygenated blood, and the intestines perform their peristaltic movements, which are necessary for digestion, with more energy.

Exercise is especially effective in relieving constipation. In medical gymnastics, deep-breathing exercises are used in anemia, nervous and digestive disorders, and disorders of the circulation.

Now for the exercises. In deep breathing exercises we should aim for the following results: to strengthen the muscles of ordinary breathing, as the diaphragm; to strengthen the extra muscles of breathing, such as those of the shoulders, arms, and back. We should endeavour to preserve and increase the elasticity of the lungs, to develop evenly all their parts, to heighten permanently their capacity. Still other objects should be to expand the chest, to deepen the ordinary breathing and reduce its rate, and to stimulate the circulation of the blood.

There are thousands of air-cells in the lungs that ordinarily are inactive, and are used only in the act of deep breathing. If one persists in deep breathing for some time, these dormant cells eventually associate in the ordinary act of breathing. As, without breathing, one ceases to exist, so in proportion as one fails to breathe deeply, one fails to live properly.

The best deep-breathing exercises are those that are accompanied by muscular positions and movements which favour or assist the act of inbreathing and outbreathing.

Some physical culturists advocate taking a deep breath and holding it for a considerable time. I can see no good results from this method, but rather an injury, as the lungs are liable to strain, and again, this would mean the reabsorption of air that should be expelled. Of course, holding the breath a few seconds, as in singing, laughing, or bending forward, is not injurious, but rather beneficial.

You will observe that muscular positions

tend to favour the inspiration during the inbreathing, and to contract the chest during outbreathing, in order to expel more air than in the ordinary expiration.

If the lungs become sore or if you get dizzy at first; decrease the amount. I am leaving the amount of exercise that should be performed daily to your judgment, just as you must determine the amount of food that you should eat. The best time to do your deep breathing is in the morning before dressing, as tight or encumbering dress restricts freedom of motion. Any time, however, is better than the omission of these lung gymnastics.

During the day, when the chest feels cramped, go to an open window, practise one or two breathing exercises, and you will be surprised at the refreshed feeling.

Now, in closing, let me say a word concerning fresh air. It is as important to get this as it is to breathe deeply, and be sure you have plenty of fresh air during sleeping hours.

Exercise in Tuberculosis

DR. JAMES M. ANDERS

FROM the standpoint of both prevention and cure in pulmonary tuberculosis, our most effective means are those that enable the human organism to resist infection.

There are certain well-recognized local predisposing conditions, such as the paralytic thorax, anemia of the lung texture, collapsed air-cells, all of which can be overcome successfully by suitable exercise, and thus lung resistance increased.

The true significance of systematic physical exercise and deep breathing for their effects on increasing the vital power and resistance of the lung texture has not been given due prominence by the profession.

In order to expand the lungs the patient should be directed to draw in the abdominal walls and take a long deep breath, while the shoulders are carried gradually backward and the ribs and sternum elevated as far as possible; he should hold his breath for a few seconds, and then blow it out forcibly through

a small opening between the lips. In this way not only the air-cells which can be reached by direct inspiration are inflated, but also those at the apices and along the borders of the lungs, which otherwise might not be distended.

Equally important for its effects upon the respiratory system is general muscular exercise. It must be taken systematically and for the most part out in the open, as well as wisely prescribed and regulated, in order to be rendered effective.

If it be true that the human body can resist an implantation of the tubercle bacillus when in a state of good physical development or healthy nutrition, then obviously muscular exercise in the open air holds forth promise of great usefulness.

In conclusion, I believe that well-regulated physical exercise is one of the strongest safeguards that we have for the maintenance of a national physique that is vital to the successful prevention of tuberculosis."



Editorial



Medicine: Its Broader Aspect.

The Doctor of the Future.

ADVANCE in medical science means the same to both the scientific and the lay mind. To the scientific mind advance in medical science is measured in terms of a Wasserman reaction, an anti-typhoid inoculation, a vaccine, or a specific medicine. The natural result of these, the scientist's ambition, is the prevention of disease. To the mind of the layman advance in medical science is the lessening of the number of days that he and his family have to spend in sickness, which is the cause of financial loss to him directly by being kept in bed from work, and indirectly by being made less fit for future duty, let alone the amount of suffering it entails. For these reasons the whole world is interested in what is called Preventative Medicine. From time to time in our columns we have shown how human life had been saved by the reduction in the mortality of cholera, typhoid fever, dysentery, diphtheria, small pox, hookworm disease, tetanus, snake bite, rabies, diseases of infancy, accidents attending the child-bearing process, and occupational diseases.

This period of medical enlightenment has been of inestimable value to the layman. He has been educated by the dissemination of the principles underlying the cause and prevention of disease. At least this is so in countries like France, England, Japan, United States, and Germany. The laity is being educated to the fact that medical assistance consists of something more than the swallowing of medicines; that there are but few specific medicines for disease; that the consumption of some alcohol-laden quack tuberculosis or cancer cure, so-called, is conducive to disease rather than health; that some

foolish contrivance or device purporting to be a "cure all" only robs the people of hard-earned money and builds mansions where the exploiter can live in luxury and ease; and that the best way to maintain the health is by living in accordance with the laws of nature, in other words that some thought should be given as to how to prevent disease. The situation is somewhat different in India. The rank and file of India's millions are not prepared for the advance that is taking place in the prevention of disease. They have not yet been educated to the point where they can appreciate the benefits derived from keeping the health. The education of the people to this point is one of the greatest problems facing the educationist in India today. If such a condition could be realized, India's death rate would be split in two at least twice.

Outside of India, cities that have not had boards of health are now inaugurating them, and the larger cities that have had boards of health have increased the staffs of the boards by ten per cent. The water supply, disposal of sewage, the health of the school children, the cleaning of the streets, the reporting and isolation of communicable diseases, the peoples' food supply, the inauguration of those things revealed by science to prevent disease, as vaccination, and in fact all activities of mankind that are more or less in common with our fellowmen are under the control of the board of health. The better grade of medical schools are incorporating in their curriculae Departments of Public Health. Why these changes? Because the people demand them. The layman is willing to pay for them because he sees the benefit derived from them. He knows that typhoid

fever, cholera, and dysentery lurk in the water supply, that tuberculosis is hidden in his meat and milk supply, and that if cholera, small pox, whooping cough, scarlet fever, diphtheria, or plague is next door he and his family may contract these diseases and die. Therefore he is willing to co-operate with the trained sanitarian and the board of health in removing these nuisances that are a menace to public health.

Having noted some of the changes that have already occurred we can now conjecture what will result from this new order of things as it were. The trained sanitarian will entirely supplant the general physician. The extra knowledge expected of the medical man will have to be attained at a sacrifice of extra time and money. This makes no difference. It has become a necessity, as the people demand it.

The practice of medicine will be robbed of its commercialism. There is nothing sadder than to see the active, well-educated, well-trained, young man leave medical school and become submerged in the maelstrom of competition in the practice of medicine. It is the commercialism existing in the art of healing that often brings such a noble profession into disrepute. In the pursuit after the rupee, education and the interests of the patient are neglected. Because of the purse of the patient and the competition for greater dividends on the part of the physician neither can afford the time which the age of modern medicine demands. It is a look at the tongue, feel the pulse, a few taps on the chest, a few abbreviations on paper for the chemist, and off to the next patient. It is not any fault of the physician's. Circumstances compel it. Any more time than this would bankrupt either the patient or the doctor. This is the reason why we so often hear the layman say, "I have been to three or four physicians, and each one of them gave a different diagnosis of my case. One said it was rheumatism; another, neuritis; and still another that it was locomotor ataxia." This was because not

one of the physicians was able to spend time enough with the patient to get to the bottom of the trouble.

The future will reveal a very different state of circumstances. The father of the family gets sick. The medical man called in is a trained sanitarian. He is hired by the community to look after its health. A history of the patient is taken, and a careful physical examination made. This includes an examination of the blood, stomach contents, sputum, urine, and feces, which are sent to the biological laboratory which is also maintained by the people. Dietary transgressions are unearthed. The ventilation of the living rooms receive attention. The food and drinking water supply, disposal of sewage of the house, and care of night soil are investigated. If necessary, the food, water, and milk are also sent to the biological laboratory for examination. For xray examination or surgical intervention, the father is sent to the well-equipped hospital which is kept up by funds from the community in which the sanitarian is located. If the trouble with the father turns out to be tuberculosis, he is taken away from the rest of the family and put into a hospital or sanitarium where all the consumptives of the district are segregated. This is very important for two reasons: first, it protects the rest of the family from getting the disease, as tuberculosis is spread mostly by social intercourse; and, second, it places the father under the very best conditions for his struggle in regaining his health. Or perhaps the father has some acute infectious, highly contagious disease, as diphtheria or scarlet fever. He is then taken to the isolation hospital, another one of the community's financial charges. It would be quite impossible for the father to have small-pox or typhoid fever, as every member of the families of the medical unit is vaccinated against the former and inoculated against the latter; and with the future advance in medical science it may even be possible to dispense with the isolation

hospital as, like small-pox and typhoid fever, all of the infectious diseases will be conquered and have ceased to be a menace to public health. If the father's disease is such that it can be treated in the home, the treatment will be outlined in accordance with the modern principles of preventative medicine. The prescription will consist of the regulation of the diet, ventilation, exercise, occupation, and rational treatment. The fact of the matter is that the educational factor along the lines of sanitation and hygiene that the sanitarian would be to the district would practically eliminate all disease. The thing resolves itself down to this, that the people would be paying the sanitarian to keep them well. Our readers may think that we have gone too far in this medical Utopia of ours, but when we consider that the Canal Zone, which was one of the most uninhabitable places, has been converted into one of the most habitable places of the globe, there is nothing too difficult in this line to be overcome. Ten years ago effective sanitation of the Canal Zone would have been looked upon as an absolute impossibility. Nothing is too great in the future for us to conjecture in preventative medicine.

To bring about these changes in the practice of medicine is requiring and will require in the future the services of three classes of workers, the educationist, the research worker, and the trained sanitarian. The research worker furnishes us with new vaccines and new serums, and isolates new organisms as the causes of diseases which are still a mystery. The trained sanitarian,

who in many instances will also be an educationist, will apply the proven results handed over by the research worker in his work, and educate the people so that they can appreciate the new developments in medicine.

In this new order of things in medicine the research worker, the educationist, and the sanitarian in America, England, Germany, and France are keeping pace with each other in their work. This allows of the greatest progress in the prevention of disease. In India it is a little different. The work of the research student and the sanitarian has made good progress in preventative medicine, but the work of the educationist has been slow. This has been due to the manners and customs of the people with whom it is the work of the educationist to labour. Nevertheless, we are encouraged that this backward member of our trio is making itself felt. The people of India are coming to recognize disease as something more than fate or the visitation of evil spirits, that it is something which can be prevented. It is a sad thing to see one putting in a miserable existence, bound down by disease, and making no effort to extricate oneself because he feels that fate has so decreed it. This is what keeps India back in this great struggle to prevent sickness. It is a solemn responsibility that rests upon enlightened Indians, in fact upon us all, to help this backward member of our trio by becoming educationists and placing this work in the foreground alongside the work of the research worker and the sanitarian. Educate! Educate! Educate! This must be our watchword.



Diseases and Their Peculiarities

The Effects of Hookworm Disease

FOR generations hookworm disease has been insidiously spreading unrecognized and unchecked over the countries of the globe having a mild climate. Its victims, numbering many millions, have through centuries, no doubt, been hosts to the small blood-sucking intestinal parasite which causes the disease. Their strength has been sapped, their vitality lowered, their physical and intellectual growth stunted. They have been mastered in war, commerce and industry by the more hearty people of colder latitudes to the north. The social and economical importance of the disease is therefore almost beyond comprehension. The infection is in most instances so insidiously acquired by the unsuspecting victim that he and the members of his family, who are probably likewise being infected, do not know just when the effects of the disease began to manifest themselves. In the course of a few summers, however, a once healthy family has become pale and puny; a once industrious family has become languid and backward in its work; a once prosperous family has fallen into debt; a once proud family, owning valuable property, has been reduced by an easily curable and easily preventable disease to tenancy and to poverty. The children, once

bright and well advanced in their school classes, begin to lose their zeal and their mental alertness when gradually robbed of their vitality. They fall behind in the struggle with their healthier classmates, and, finally discouraged and perhaps abused, give up school work in despair.

When we consider that several hundred hookworms may live in the intestine at one time, and that they may live there for from six to ten years—sapping the blood, wounding the intestine, and poisoning the body—it is not strange that the body becomes diseased. The blood is needed to collect oxygen in the lungs and the food from the intestine, and distribute them over the body. In the disease much blood is lost. Some of it is taken into the bodies of the worms, and a great deal more is lost by bleeding from the small wounds made by the worms.



Fig. 5.—Slice of skin as seen under the microscope. Note how the younger hookworms are crawling through the skin. This is how "ground-itch" or "dew-itch" looks. (U. S. P. H. Service.)

In severe cases of the disease, the blood is reduced to one-fourth or one-sixth of what it should be. In such cases we find the victim's normal colour replaced by a pale, sallow complexion; the lips are pale; the mucous surfaces generally are pale, and the skin is of a pale, yellowish hue. The eyes are listless, the pupils dilated and not very responsive to light; often they present a blank stare, fish-

like in character. The hair is dry and scant, especially in the armpits. The face and the ankles are often swollen, anemic ulcers frequently appear on the legs, and the abdomen is prominent, giving rise to the terms "pot-belly." The chest is flat, and the shoulder blades stand out prominently, suggesting "angel wings." When the disease occurs during the growing period there is a marked retardation in development; that is to say, a boy or girl may not be developed at 18 beyond what would be expected of one at 13 or 14 years of age. The appetite is often perverted, so that the sufferer has a craving for a particular kind of food, and often for certain substances not foods. For example, victims of the disease frequently crave clay and for this reason are termed "dirt eaters." Again, coffee grounds or salt may be the substance desired.

The intestinal wall is considerably damaged by the worms, and becomes tender to pressure over the pit of the stomach. Where the worms bite, raw surfaces are left, so that it is easy for any germs, such as may cause typhoid fever or tuberculosis, to get into the body and set up a disease more violent in character, and more frequently fatal, than hookworm disease. There may be severe headaches, lassitude, dizziness and inability to sleep. The heart is poorly nourished by the impoverished blood, yet it is called on to do

the work necessary to keep the body supplied with oxygen from the lungs and food from the digestive tract. As a result, the heart's action becomes laboured, so that hookworm disease is frequently mistaken for heart disease, or Bright's disease. Most of these cases can easily be cured by getting rid of hookworms.

It must not be inferred that every person who is infected with hookworms suffers with all the symptoms mentioned. Much of the infection is so mild that the presence of the disease might not be suspected. In cases of medium severity one or more of the symptoms will be present, but the existence of the disease cannot be confirmed until the eggs of the worms are demonstrated in the excreta by microscopic examination.

The disease however, even in very mild cases, is a menace for two reasons. First, any infection exerts a handicapping influence on the victim. This has been shown among students who, though mildly infected, were underdeveloped in size and were backward in their studies; and, being below the standard, they were more subject to other diseases. Second, the persons mildly infected are carriers and distributors of the hookworm eggs, and may become responsible for the disease in a severe form in themselves and in other persons.—*Journal American Medical Association?*



: Mother and Child :

Gaining the Respect of Our Children

BY DIDAMA DU VALL

WE often hear a mother say that her children have lost their respect for her; that they seem to think that she was made to wait upon them, to stay in the background, while they wear the fine clothes and entertain their friends. Why is it?

A tired, discouraged mother asked, "Why are my children so selfish? They want me to do all the work and give them all the pleasure. I have toiled for them ever since they were born; I have stayed at home that they might dress well and have a good time; I have worked, night after night, while they were soundly sleeping, and yet they never consider me in their pleasures. My life has been one of slavery for them. I have gladly sacrificed that they might advance, and now they consider me too old-fashioned to enjoy myself with them. What have I left undone? How can I win them back?"

Poor, weary soul, yearning with mother-love for affection from those for whom she had gone through the shadow of death, that they might live; yearning for consideration in their enjoyment when it was too late. Too many mothers feel it their duty to sacrifice even the necessities of life that their children may live in luxury, beyond their means. Too many mothers feel that the burden must not be shared by their children, lest some of their time be taken from some social function. Perhaps they think that their hands are too soft and white to be soiled by household duties.

The child has the right to be given every advantage for higher education, within proper consideration of financial resources. It is our duty to our children to help them advance; but the mother who puts herself in

the background, denies herself the proper wearing apparel, allows herself no time for mental reflection, who shuts out the privileges of her own advancement, in order that her children may walk hand in hand with those financially or socially stronger, does an injustice to the children, to her home, herself and to society at large. She may save and plan, and deny herself many an article that might give her pleasure, but she should not allow herself to get into the habit of forgetting that she is the mother of the home, and as such, deserves to hold a position of respect and honour. If she allows herself to reach the place where she feels that her clothes are out of harmony with those of other members of the family, she will find herself withdrawing from society, and the oftener it is done, the easier, until she finally realizes the sad fact that her children no longer consider her in their pleasures.

Through her false conception of generosity, she is breeding within those children desires to live beyond their means, selfish motives in dealing with the world, and she is sending forth helpless beings to fight the battles of life. She is not an unselfish mother but she is an overindulgent one. The unselfish mother will share her time in teaching helpfulness to her family, as well as in giving them pleasures.

Too often the children do not have any knowledge of the financial affairs of the home and are allowed to waste time and money foolishly without regard to the comforts of other members of the family. An honest understanding of financial affairs will greatly lessen the gulf between parents and children.

(Concluded on Page 344)



A Few Wholesome Breads.—(Concluded.)

GEORGE E. CORNFORTH

It is well to have a large variety of breads, thus adding to the variety of the meals. We may say that bread is bread; but if it is served in many different forms and varieties, it almost *seems* like a different food, and gives zest to the appetite.

In this lesson, I wish to urge the use of brown or whole-wheat bread. Most of the recipes in this article are for breads made from other than white flour. The recipes for brown bread usually call for one-third whole-wheat flour (*atta*) and two-thirds white flour, but I would urge our readers to try making entire brown bread, using whole-wheat flour only. This bread will be dark and coarse, but will contain much more of the mineral matter of the wheat—the phosphates, the lime, the magnesium, the potassium—than is contained in white bread, and more than is contained in whole-wheat bread.

Oatmeal Bread No. 1

The day before the bread is to be made, cook six ounces (three scant cups) of oatmeal in one pint of water in a double boiler four or five hours. The next morning warm the oatmeal porridge to lukewarm, and add to it—

- 1 tablespoon oil
- 1 teaspoon salt
- 1 compressed yeast cake, dissolved in 2 tablespoons water *
- $\frac{1}{4}$ cup molasses
- 14 oz. white bread flour ($3\frac{1}{2}$ cups measured after being sifted)

This may be mixed in a bread machine or kneaded into a dough by hand. Allow it to rise till light, which will require about three hours. Mold into two loaves. Let rise again, not too much, and bake.

This is the usual method of making oatmeal bread, but there is so small a propor-

tion of oats that one can hardly tell by the taste what kind of bread it is. A larger proportion of oats can be used if the dough is made from raw rolled oats and flour, but the objection to this method is that the oats, not being sufficiently cooked, taste raw in the bread. This difficulty can be obviated by steaming the bread for a sufficiently long time to cook the oatmeal before baking the bread. Steaming before baking is a good way to cook any kind of yeast bread, because it more thoroughly cooks the bread, and kills all the yeast germs. Following is a recipe for making oatmeal bread by this method:—

Oatmeal Bread No. 2

- $1\frac{1}{2}$ cups lukewarm water
- 1 yeast cake dissolved in 1 cup water
- 1 teaspoon salt
- 1 tablespoon oil
- $\frac{1}{4}$ cup molasses
- $\frac{3}{4}$ lb. rolled oats
- $\frac{3}{4}$ lb. white bread flour

Combine the ingredients into a dough, knead well, allow to rise, mold into two loaves, putting into tins that can be lightly covered, like brown bread tins. After the loaves have risen,—do not allow them to become too light,—put them into a steamer and steam three or four hours, then bake from one-half to one hour.

If rolled oats ground to flour in a coffee-mill are used in making this bread, the bread will get cooked enough by baking alone so that the oats will not taste raw, though, by steaming, the bread is cooked more thoroughly.

Corn Bread

Corn bread is improved by steaming it as brown bread is steamed, and then baking it a few minutes. Another way to make this

bread and have the meal well cooked is as follows:—

Pour one pint of boiling water over four ounces (three-fourths cup) of corn-meal, and cook over the fire till thick. Cool to lukewarm and add—

- 1 teaspoon salt
 - 1 cake compressed yeast, dissolved in 1 tablespoon water
 - 3 tablespoons oil
 - 2 tablespoons sugar
 - 1 lb. white bread flour, or whole-wheat flour.
- When the dough is risen, mold into loaves; and when risen again, bake about one hour.

Corn Muffins

- 1 cup warm milk
- 1½ cups sifted bread flour
- 1 yeast cake
- ¼ cup sugar
- ¼ teaspoon salt
- 2 cups corn-meal

Dissolve the yeast in the milk, stir in the flour and beat well. While this is rising, emulsify one-third cup oil with one egg by beating the oil, drop by drop, into the egg as is done in making mayonnaise dressing. Add the sugar and salt to the oil-and-egg mixture, beat well, and when the sponge is light add this mixture to the sponge, and then stir in the corn-meal; mix thoroughly, put into small tins, filling them two thirds full. Let rise ten minutes, then bake from thirty-five to forty-five minutes.

Currant and Nut Rolls

- 1 pt. lukewarm water
- 1 cake yeast
- ½ teaspoon salt
- ¼ cup oil
- ½ tablespoon sugar
- 1½ lb. whole-wheat flour

Dissolve the yeast cake in the water, and add the remaining ingredients to make a dough. When the dough has become very light, which will require from two to three hours, roll it out into a long strip about one half inch thick and five inches wide. Brush it over with oil, sprinkle chopped nuts on it, then some currants which have been washed and dried, then brown sugar over all. With the palm of the hand press the sugar, currants, and nuts down into the dough firmly, then roll the dough up like a jelly roll. Cut into pieces one inch long, and place the pieces close together, flat side down, on an oiled pan. Allow to rise, then bake.

Whole-Wheat Buns

- 1 pt. lukewarm water

- ¾ cup molasses
- 1 cake compressed yeast, or 2 cakes if it is desired to get the buns done more quickly
- ⅓ cup oil
- 1 teaspoon salt
- 2¼ lbs. whole wheat flour

Mix into a dough, allow to rise, mold into one-and-one-half-ounce buns, allow to rise very light, then bake. These buns remind one of gingerbread.

The ingredients are combined into a dough, the dough is well-kneaded, allowed to rise, molded into a loaf, allowed to rise again, but not so much as white bread is allowed to rise, then baked. The bran extract being dark, this bread is about as dark in colour as whole-wheat bread; it has a nice flavour.

Swedish Wheat Bread

- 1 qt. lukewarm water
- 1 cake compressed yeast dissolved in the water
- ½ tablespoon salt
- 1 tablespoon sugar
- 2 tablespoons oil
- ¼ oz. cardamoin seeds
- 1 lb. whole-wheat flour
- 2¼ lbs. white bread flour

Shell and crush or grind the seeds, and add them to the liquid with the yeast, salt, sugar, and oil. Then add flour to make a stiffer dough than for ordinary bread. Knead well; or the dough may be mixed in a bread mixer. Let rise till it doubles its bulk. Mold into three loaves, put into pans, let rise again, and bake.

* Moist yeast may be substituted for the compressed yeast cakes in the proportion of one-half cup of moist yeast where one compressed cake is called for. A good recipe for moist yeast is:

- 2 potatoes
- 2 tablespoons sugar
- 1 tablespoon salt
- 1 tablespoon dried hops
- 1 tablespoon old yeast or a small piece unbaked bread.

Boil the potatoes and mash well, or, better, put them through a potato masher or colander: add the sugar and salt, and pour over this one half cup of boiling water in which the hops have been boiled for one minute and then carefully strained out. Cool to lukewarm and add one tablespoon of old yeast on a tiny piece of unbaked dough. Pour into a glazed stone or glass vessel which can be covered and let stand. It should be ready for use in a day. This yeast should be remade once a week in winter and twice a week in summer.

Sanitation and Hygiene

A New Way of Killing the Fly

BY C. T. SWITZLER

IN THE recent widespread crusade against the house fly, that has been conducted for two years with such good results, it has been impressed upon the public over and over again that flies are born in filth and feed upon it; that they breed in manure piles, dead animals, and in decayed animal and vegetable matter. With this before them dwellers in cities may conclude that upon their premises the fly has no breeding place, for stables are few and generally well cared for, sewerage systems contribute to better sanitary conditions than are possible in country towns, and Boards of Health are active in their efforts to prevent accumulations of all decaying matter.



A Pail Fitted With a Garbage-Bag

But the household garbage receptacle, a noxious though necessary utensil, is overlooked and forgotten. This, with hardly an exception, is a veritable fly hatchery. Garbage is more attractive to flies than anything else. They feed freely upon this refuse and deposit their eggs upon it. These eggs hatch in about thirty-six hours in normal summer temperatures, and thus the garbage becomes covered with maggots.

The collection and disposal of garbage in a large city is a great problem. It enters here only to that degree in which the garbage collector relates to it. The collector's duty

does not require that he shall clean the receptacles which he "empties." He removes only that material which freely leaves the receptacle when he dumps it, with the inevitable result that much matter is left clinging to sides and bottom. It is what is left in the receptacle after each collection, not what is taken away, that so vitally concerns us. This material soon becomes putrid, if not already so, and generates the foul, sickening gases everywhere emanating from such receptacles.

Along with the material left in the receptacle will be fly eggs and maggots. In hot weather the maggot and pupa stages of a fly's development run from ten to fourteen days, so that before the collector calls the following week (considering there is only a weekly collection) the maggots will have become flies. And it is obvious that more frequent collections of themselves will not impede this development.

With the cooperation of the Sanitary Division of the Public Works Department of the city of Boston I conducted during the summer a two months' demonstration in a section of the city, showing the advantages of paper garbage-bags as a means of fly prevention, coincidentally establishing improved sanitary conditions in that district and materially facilitating the actual work of collection. These bags were made of heavy oiled paper, strong and practically waterproof, and were used as linings for the receptacles. Each householder was requested to drain all garbage before it was put in the bag, and it is evident that, serving as a lining, the bag prevented the garbage coming in contact with the sides and bottom of the receptacle.

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The advantages of this were manifold. The collector removed the bag, and in doing so took all the garbage, all the maggots, all the pupæ and all the fly eggs. He actually emptied these receptacles without any intention or special effort to do so. It was simply the natural consequence by virtue of the bag's presence, and he could not avoid it. A new bag was installed in every receptacle after each collection, resulting not only in the discontinuance of the fearful odours arising from long standing putrid garbage, but also what is more to be valued in the work of fly extermination, the garbage receptacle was immediately and effectively removed as a household fly hatchery.

When we stop to consider that the house fly and the stable fly are the two species that are the most persistent in spreading disease germs, and that these flies breed and come to life in garbage receptacles to which they have access, the conclusion is forced upon us that in all efforts toward prevention of flies attention must be divided between stables, alleyways and garbage receptacles.

Paper bags for garbage receptacles are inexpensive. Besides serving as a direct means toward fly prevention, and establishing better sanitary conditions by making certain the complete removal of the garbage, they will prove an economical investment for the householder. The acid in the liquid generated by the decomposition of vegetable matter in garbage destroys metal receptacles more rapidly than rust. The bag, if sufficiently oiled to be waterproof, prevents this. In performing its functions the bag holds the water and keeps the receptacle dry. Those who live in climates where ice forms will recognize in this feature a means by which their garbage receptacles may be saved from the ice-pick in the hands of the none too careful collector. With a bag in use the garbage will freeze within it, and bag and garbage may be lifted from the receptacle like any loose piece of ice.

Food for Thought

There is food for thought in the fact that physicians tell us that the vast majority of people in moderate or affluent circumstances eat too much; that white flour products are at least in part to blame for the prevalence of cancer, owing to their lack of mineral salts; that tea and coffee are stimulants only, not foods.

And there is food both for the mind and for the mistreated or overtaxed body in the foods offered by the **Sanitarium Health Food Co., 75 Park Street, Calcutta;** "Granola" and "Granose" fully cooked, whole wheat products, and "Caramel Cereal," a cereal food coffee, non-stimulant and yet strength giving. Try them for a time and note the increasing strength and happiness.

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NEWS NOTES


THE TUBERCULOSIS HOME HOSPITAL EXPERIMENT

Dr. P. Brynberg Porter, New York: In the "East River Homes," built by philanthropic persons and placed at the disposal of the New York association for Improving the Condition of the Poor, twenty-seven families, seventy-nine members of which were tuberculous, lived in sanitary homes, had ample sunshine, fresh air, good and abundant nourishment, freedom from undue work and worry, reasonable segregation, skilful medical attendance, and constant nursing supervision. The results observed in the tuberculous patients compare very favourably with those at the best sanatoriums, while the expense was less than that of institutional treatment. No new cases of the disease developed in any of the families. At the time of admission the average income of the six families which were discharged as rehabilitated was only Rs. 20 a week, while when they were discharged their average income amounted to Rs. 46-14 a week.

OVEREATING AS CAUSE OF SICKNESS

Faber is convinced that many of the morbid conditions credited to the "uric acid diathesis" are in reality merely the effects of eating too much either at the time or previously. His list of 283 corpulent and 304 not corpulent patients shows how chronic rheumatism, lumbago, varicose and constipation are far more prevalent among the corpulent. The combination of rheumatism and nervous symptoms in the corpulent is especially frequent. Comparison of the mortality of the corpulent shows a much higher mortality from heart and kidney disease and apoplexy. This may signify that the corpulent have less resisting power. But his main argument is the benefit which follows restriction of the diet. Rheumatism, neuralgia, etc., are liable to show prompt and persisting improvement when the diet is restricted so that the weight is reduced. Chronic rheumatism, refractory to heat, baths, massage and drugs may yield promptly and permanently when a few pounds of fat have been thrown off and it may return when the patient over-eats again. He found the blood-pressure unusually high in thirteen of fifteen corpulent patients; it ran up to 220 in two. Restriction of the diet alone may bring a high blood-pressure down to normal as the patient throws off superfluous flesh. The latter is not the cause of the rheumatism, etc., but both ure due to overeating.

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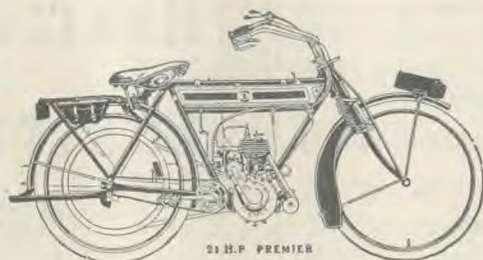
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ANOTHER SIN OF THE FLY

THE entomologist of the Philippine Department of Agriculture has announced the discovery that anthrax, or carbuncle, is transmitted by the stable fly.

FRIEDMANN'S REMEDY FOR TUBERCULOSIS

Never in the history of medicine has there been such a unanimous verdict of repudiation of an alleged curative measure as is the case with Friedmann's remedy. The matter seems to have been definitely settled for the present by the open discussion through four meetings of the Berliner med. Gesellschaft and at the discussion in the Vienna K.K. Gesellschaft der Aerzte. The general verdict is that, on account of the lack of any pronounced curative action from it and of the dangers connected with it, its use is warned against. The editorial concludes with the statement that as the matter seems now definitely settled, no more space will be devoted to it in future.

VACCINATING AN ENTIRE CITY

Among the Mexicans the principal diseases are tuberculosis, dysentery and other intestinal diseases, measles and particularly, small-pox. During May there were twenty-two cases of small-pox with seven deaths, and during June, twelve cases with four deaths, the last case being reported June 21. No cases whatever have occurred among the American troops. The Health Department began general vaccination May 18, with virus obtained from the United States, and up to June 30 had vaccinated 41,404 persons. Fifty per cent. of all vaccinations have been successful, and among children, the primary vaccination has succeeded in between 80 and 90 per cent.

Since the total population is less than 60,000, the vaccination of the entire city will soon be completed and small-pox will be a thing of the past. Already two weeks have passed since the development of the last case.

ABSORPTION OF FATS

W. R. BLOOR, in the *Journal of Biological Chemistry*, concludes as a result of experiments on the absorption of fat-like substances such as the petroleum hydrocarbons and the like, that it is "extremely probable that fats can be absorbed [from the intestine] only in a water-soluble form, and that saponification is a necessary preliminary to absorption."

GAINING THE RESPECT OF OUR CHILDREN

(Concluded from Page 333)

The mother owes a duty, not to her children alone, but to the community as well. She can pay that duty by sending into its midst young men and women who are strong, mentally as well as physically. Young men and women who know how to work, how to be courteous, who honour the home and respect the heads of that home, whether rich or poor.

We should hold the respect of our children, instead of trying to regain it after it is once lost. Let us be so prepared that we can advance with our children. I do not mean by this that we should go to school with them and leave our home duties. But we can, by reading good fiction. Perhaps they think that their hands are too soft and white to be soiled by household duties.

I am speaking to mothers, for it is the mother, more often than, father, who allows opportunity for advancement to slip past. The father meets with the outside world and discusses the important question of the day, but the mother who is unable to secure the needed help in her home, soon feels that her life is bounded by four walls and spends her time and energy in working for those who are daily coming in contact with outside persons and influences. She, too, needs a little of this outside world, to enliven her own sphere.

Remember, dear mothers, we cannot demand more respect of our children for us than we have for ourselves. We can hold that respect, but it is hard to regain, when once lost. The mother holds one of the highest and noblest positions ever given to woman, but to bear the child does not release her of the obligations of her office. No one understands the newborn babe as its own mother: no one should understand the fullgrown man or woman as that same mother does.

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