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THE NATIONAL HEALTH MAGAZINE

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*April  
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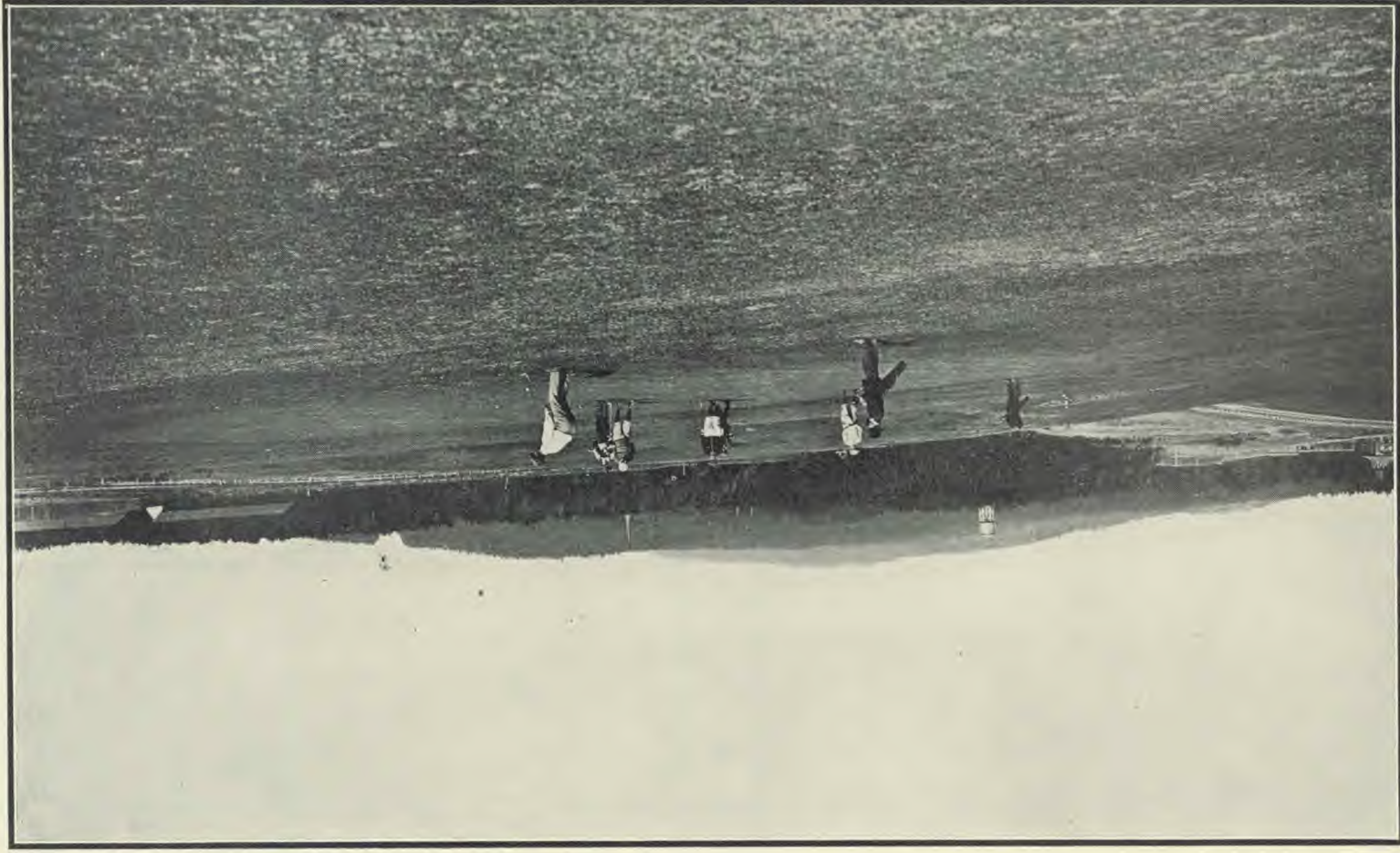
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AIM: To assist in the physical, mental, and moral uplift of humanity through the individual and the home.

George Henry Heald, M. D., Editor

## EDUCATION IN HYGIENE<sup>1</sup>

The first essential in any line of human endeavor is a scientific basis.

\*\*\*

No educational effort is worthy the name which is not founded on physiological principles.

\*\*\*

The public attitude is negative. To seek to prevent sickness is "sheer nonsense."

\*\*\*

This prevailing impression that nothing can be done to remedy conditions is the outcome of ignorance of the science of health and of the practical value of these principles.

\*\*\*

Therefore in patience and magnanimity, in the spirit of service, the medical apostle must preach and teach the "gospel of health."

\*\*\*

Conviction that science has put its finger on the cause of many diseases must be brought home to the individual mind.

\*\*\*

Further [the individual must be taught] that to know the cause is to know the remedy, and that it is to the advantage of all to apply the knowledge.

\*\*\*

Psychology indicates that much can not be accomplished with adults whose habits of thought and action are established.

\*\*\*

With the young it is easy to impress principles and induce activity.

\*\*\*

Discretion is important, however, in the presentation of health facts because of the

imagination of the child, the vividness of its impressions, and the possible after-effects.

\*\*\*

Instruction in hygiene in general is very much below the standard attained in other subjects.

\*\*\*

It is common even yet to go into a room with poor ventilation, perhaps with windows and doors closed, and find the teacher giving a lesson in hygiene from a book.

\*\*\*

The facts presented by the school physiology are important, but the elements of hygiene have far more effect on the daily life of the child.

\*\*\*

Education in the elemental principles of hygiene is the lever which will lift the masses to higher health levels.

\*\*\*

The appeal will reach only through adaptation to former experiences. The school is the best medium for instruction of the individual, the influence reacting on the home and ultimately on the community.

\*\*\*

It is wisdom to attack the essentials, not with the hope of immediate regeneration, but with the realization that all reforms pertaining to habits of thought and living are wrought not in a day or a generation, but slowly through the increasing purpose of the ages.

<sup>1</sup> Thoughts taken here and there from a paper by Oscar Dowling, president Louisiana State Board of Health, read before the American Public Health Association, Washington, D. C., September, 1912.



# VEGETARIANISM

J. L. BUTTNER, M.D.

[Dr. Buttner, who is the author of an excellent, because temperate, book on vegetarianism, was led to write the following by the perusal of an article that appeared in *Harper's Magazine*, July, 1911.—Ed.]

**V**EGETARIANISM has its foundation in science as much as in sentiment, and even more. Its advocates have emphasized the sentimental side for obvious reasons. It was sentiment that first induced some to abandon foods that necessitated the shedding of blood. Whatever may be the logic of arguments based on the oneness of life to justify the killing mania, there is in every refined human being a repugnance against destroying and torturing either bodily or by proxy those forms of life which come nearest to us, and in their highest representatives reflect some of our qualities, emotions, and feelings. Science has given us a number of facts which, far from proving the inanity of claims based upon sentiments, support them on all sides, and make of them gradually a tower of strength against the assaults of those who fear progress.

We may agree that the anatomical argument for or against any food is a futility, but it is well to show that on the vegetarian side it is a reaction of defense against baseless assumptions. Innumerable books on physiology have popularized the mistaken notion that we are, as shown by our teeth, the close cousins of our cats and dogs. The relation of teeth to meat is declared *ex cathedra* as binding. This is so true

that it forms the first and immediate argument of those possessing a smattering of high-school natural science, opposed to any suggestion of a vegetarian mode of life. As we have thus been bound by the oracles of science at a time when the voice of sentiment on the behalf of animals was overpoweringly suppressed by the roar of appetite, we need press the idea that such was an artificially imposed obligation.

We can eat anything we please; but it may not be best to do it. Our teeth and our stomachs can get along with meat, but they do not make us carnivorous by nature, or even omnivorous of necessity. We are omnivorous indeed, and in that matter much resemble the pig; but it is no proof that our actual habits

are commendable in every respect, and that we can not change them rationally. Naturalists have proved that our anatomy compares most closely to that of the ape, a fruit eater; this is enough to dispose of the obligation imposed upon us to use flesh foods for health and strength.

It takes more precise truth to induce change than to maintain *status quo*. The experience of the ages showing the undoubted value of the present usages, with difficulty is moved toward new and insufficiently tried ones. Science, incomplete, hesitates to dogmatize with the dictation of short-lived experience. The

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## PROPOSITIONS DISCUSSED

Vegetarianism is sentiment, not science.

The argument of vegetarians, based on the conformation of the human teeth, is fallacious.

Man is omnivorous, and can and does eat anything that suits his fancy.

The vegetable proteins may not be adequate for man's nutrition.

In fact, animals fed on a single protein quickly suffer from malnutrition, and eventually die of marasmus.

Man requires meat as a stimulant to his digestion.

Because of the excess of cellulose, vegetables are too coarse and bulky.

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struggle for life is a law that applies to ideas as well as species. To live and impose itself among the old ones, a new idea has to possess more of the very truth. The discovery of the vegetable protein and its evident value for nutrition, was quickly followed by a demonstration of *kinds* in proteins. What, then, if in vegetable foods we did not get the kind of protein suitable for us? No rash venture must be entered into on that point. The only absolute and final proof of value will be the knowledge of all proteins contained in vegetable as well as in animal foods, and the exact amount of each of the molecular constituents necessary to satisfy the manifold needs of our several tissues. In view of the actual state of science and the difficulties of the undertaking, it can be hoped for only in the distant future.

In our endeavor to live a better life, shall we be paralyzed by the incompleteness of science? Thousands of persons have lived, and lived long and strenuous existences, on a vegetarian diet. This is enough to prove the possibilities therein contained. Most of them do use some animal food, such as eggs and milk; therefore are supplied with proteins of a kind intended by nature to supply all the needs of a growing organism.

If it is justifiable to draw definite conclusions from the experiments of Hopkins and Willcocks with mice fed with zein (a vegetable protein), we should surely just as well conclude that a single animal protein may be as incapable of satisfying all our needs as a single vegetable protein. However, what do our contemporaries do with regard to animal foods? Do they not almost exclusively feed on one kind of tissue, the muscles, at the exclusion of others? Where is the certainty that muscle protein can make brain protein more properly than gluten? The importance of the experiment with zein is great, but it does not prove everything our adversaries want. There is not a single individual, however poor, who does not get several kinds of proteins in

his diet. Logic has deserted the side of the meat eater.

A fact that is not sufficiently apprehended by vegetarians is the importance of flavor and of the hormones in feeding. It is not unlikely that some of the failures of the régime could be traced, if it were possible, to some constituent in food that in itself is not food. The exaggerated tendency of some to reject all stimulants, from whatever source, may not always work toward better health. Certainly a middle point of understanding is needed. We are creatures of habit, while each cell in our body has also its own habits. The vital phenomena of our organs occur under the stimulus of substances that are as important as is the quantity of our daily intake. But here again the argument of the worshipers of the past overreaches the mark. Many a man would have a poor digestion without his cigar, many a woman without her cup of tea. Some would feel wretched if deprived of their glass of wine; and in going far and wide, we might find the greatest variety of stimulants used. Heredity and long use produce in us a path of least resistance and a sensitiveness to certain kinds of stimuli which belong to us in proper. Furthermore, wilful or compulsory changes, in traveling or otherwise, have proved that we can get along and establish a new equilibrium on a different basis. We are not bound absolutely and forever to one set of habits, even if some of us are *de facto* because we have neither the wish nor the will to change.

Obviously there are things that are not best in our way of living. In our efforts to modify it we are not always defeated. Often it is only a moderate amount of discomfort that we have to undergo. To come to a specific example, we can accept, as excellently proved by Pawlow, that meat extract is a chemical stimulant of gastric digestion. Do we need it?—No more than we need a cigar or a bottle of wine. The most important of Pawlow's discoveries relate to what is called psychic secretion, the influence of the



mind on the secretion of gastric juice. We digest best inasmuch as we desire most eagerly and enjoy our food. How many mothers have whipped their children to make them eat meat? Pawlow has very well seen the importance of his discoveries, for in speaking of the stimulant action of meat bouillon, he says: "For a person who feels hungry such extra inducements are, of course, not necessary." What shall we say besides of dogs which, liking bread more than meat, secrete their best gastric juice on bread, as Pawlow again tells us that sometimes "we find dogs which will devour bread with greater appetite than flesh. . . . In these cases one obtains more and stronger juice in sham feeding with bread than with flesh." We certainly ought to have as much capability as dogs in that line.

The question of meat versus vegetables is more than a question of food value. There are positive facts to prove that meat is harmful, if not always, at least frequently. Meat, nowadays, is always swarming with bacteria. These are mostly microbes of putrefaction. Cold storage retards their multiplication, but does not stop it. People have so perverted their taste that they do not like meat unless this process is advanced. Read the reports on the investigation of cold-storage conditions in Washington.

To the poisonous substances that fresh meat contains are added the ptomains of bacterial life. The bacteria themselves are harmful, and not always destroyed by heat. These conditions are a result of our industrial civilization. While we have gained in some respects, we have

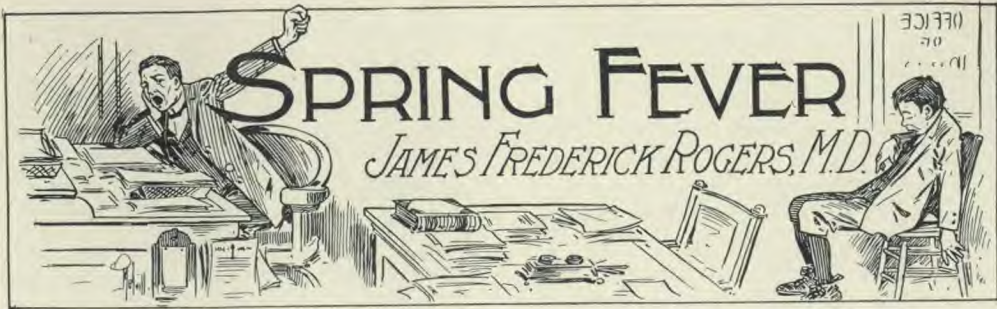
lost in some others. Cold storage is of wonderful value, but it can be a menace as well. Many a time the simple change from a mixed to a vegetarian diet has improved health beyond all expectation.

Food value comparisons are sometimes ridiculous. There is a notion that only proteins count in alimentation. It is well established that any amount of it past a certain quantity is injurious. We are beginning to realize that carbohydrates and fats have their own value, and can not always be substituted for each other. Again, the water content in foods is compared to the cellulose content. Much water is rarely an objection, as we almost always feel the need of more. As to the cellulose, we have so mistaken our needs that most of us are constipated. The enormous sale of laxatives stands witness of the aberration of our food habits. Often the simple addition of bran to a meal may have the desired effect. Yet on the one side we exhaust our ingenuity in concentrating and refining our food, on the other in finding new chemical substances which produce in our intestines abnormal activity. The residues of digestion are mixed with an appreciable amount of excretion products from liver and bowels. This must be expelled regularly, and it is an advantage to take in with the food a certain amount of indigestible fibers and scales. A chemically pure and perfect food would not be best. Vegetables, fruits, grains, and nuts are the food to which man is adapted. Carnivorous animals swallow usually a certain amount of skin, feathers, hair, and bone, which give body to their intestinal excreta.



Thirteenth century bas-relief. Now in Museum of Comparative Sculpture, Paris.





AMONG the signs of spring to be seen even in city streets none is more infallible than the annual display, in the windows of the apothecary, of sulphur, sulphur and cream of tartar, cream of tartar and Rochelle salt, or of those presumably more potent because more mysterious mixtures supplied in shapely, beautifully colored, and elegantly clothed containers—the “blood purifiers” and “nerve tonics,” which are “good for spring fever.”

And what is spring fever? Why, when all other animate things are actually springing into new life and expressing themselves with appropriate joy, should man languish and lament the caresses of the climbing sun? Why, when all other life revels in the out-of-doors, should man seek out the poison-laden air and darkened confines of the house of drugs, and carry thence with him a package of “spring medicine”? Spring seems the finest of tonics, and even of stimulants, to other life; why should man need to counteract its influence with nauseous concoctions?

As defined by one who has become immortalized by having his name blown in the bottle of one of these remedies, spring fever is a “real ailment, incident annually in the life of every person. Its symptoms are loss of appetite, impure blood, nervousness, and general listlessness.” Coming from one whose preparation has “proved unfailingly reliable for thirty years,” this must be authoritative. The makers of medical mixtures are forced these days to be less esoteric than formerly, and we learn from the label that among the ingredients of this

particular concoction are “dog-grass for the kidneys, hops for general tone, sarsaparilla to clear the blood” (without it no such mixture would be quite complete), “ginger to stir up the stomach, and senna and cascara for the bowels.”

But sulphur and cream of tartar are less complex and more impersonal, and have been vastly longer on the market than proprietary preparations, and when interrogated they tell a simpler story as to the nature of spring fever. So far as cold science can make out by all sorts of investigation, the only effects of these substances when taken internally is to hasten the movement of the food through the alimentary canal, and to prevent its too long residence in the reservoir of waste matter, the large intestine. In other words, they are, like the senna and cascara of the more complicated cure, only mild laxatives. They do not directly affect the “nerves” or the appetite, but they do affect them both indirectly by ridding the body of accumulations of putrefying material in the large intestine, from which poisons that depress the nervous system are sure to be absorbed into the blood.

The effects of the time-tested, as well as of the more modern, spring remedies are those of a mild laxative, which incidentally help to keep the blood pure and the nervous system free from depressing poisons. Reasoning backward from this fact, the condition present in spring fever is an overloading of the digestive tract, the cause apparently being the increasing warmth of the season. But what connection is there here between cause and effect?

To explain this, one must go back six



months, to the time when the sun begins to travel southward; when woolen things become agreeable companions, and the bodily fires carried on in the continuous tonic contraction of the voluntary muscles, are quickened. We<sup>1</sup> then turn to hog and hominy, fried cakes and fritters, or similarly heavy foods, with a zest impossible in July and August. With the rising mercury of April and May, conditions are reversed. The fires in the muscles are checked, and there is consequently less use for fuel in them. This means a diminished hunger, as the immortal inventor of the spring remedy has truthfully told us. All this fortunately goes on beyond the control of our wills, but we are fools enough through our fondness for feeding to believe, just as the spring-remedy maker teaches, that this loss of appetite is a bad thing. We persuade ourselves that nature has made a mistake in taking away our hunger. We are sure that she meant we should enjoy ourselves all the year round as we have during the winter months, and that we should continue to load up with the same quantities of heavy foods. Therefore, we follow our it-tastes-so-good appetite. Meanwhile the digestive organs have more innate gumption than to digest the

unnneeded food forced upon them. The undigested stuff accumulates, the poisons from it promptly reach the nervous system, and we have all the familiar symptoms of spring fever, as described on the handsome wrapper of the spring drug.

Of course senna and cascara, sulphur and cream of tartar, rid us temporarily of these conditions, make us feel better for the moment, and help us along until we learn to diminish our intake of food and to change our diet to make it suitable for the season. If, at the same time, we cautiously rid ourselves of superfluous clothing, the "fever" is cured, and we are fairly adjusted to the heated term.

Spring remedies are, then, the outcome of man's love of eating and of his mistaken ideas of the meaning of appetite. He has no more need of them than has any other animal, provided he observes his instinctive leadings in the matter of feeding and clothing himself. Aside from the slight relaxation of tone of the voluntary muscles, he ought, if he has not abused himself, to feel refreshed and invigorated after the successful six months' campaign against cold, from which he issues again triumphant, into the abundance of pure air and ample sunlight of the out-of-door existence.

<sup>1</sup> That is, the uninitiated.—Ed.



THREE BEAUTIES



# TREATMENT OF "FLAT FOOT"

CHAS. K. FARRINGTON.

**A**N astonishingly large number of persons are nowadays afflicted with what is known as flatfoot. This disease is the breaking down of the arch of the foot, and therefore causes the sufferer to have a very low instep. It can largely be relieved by wearing properly constructed shoes. Many a person who is beginning to be troubled does not know what is the matter, the pain being thought to be rheumatism, or some similar disease; consequently the remedy in a large proportion of cases is not applied as soon as it might be, to the patient's great loss. The old saying, "A stitch in time saves nine," is particularly appropriate in this connection. The writer will mention in this article how the trouble begins, and will also give hints as to how a remedy should be applied.

Flatfoot is more frequent among those who stand or walk most of the day, but it is not confined to them, for many others have it also. Often the first indication of its presence is the difficulty of obtaining a shoe of sufficient length. Where only one foot is diseased (this is frequently the case, or at least one foot more broken down than the other), if it happens to be the foot on which a new shoe is not fitted, it is more difficult to de-

termine what is wrong. Let me state here that one foot is often longer and larger than the other even if flatfoot does not exist; and all persons should at intervals have *both* feet measured for the purpose of finding out which is the larger, and a new shoe should always be fitted on that foot.

Where flatfoot is present, however, even if care is used in measuring, and a shoe which under normal conditions would be long enough is provided, after a short time the wearer will find that the toes touch the end of the shoe, causing much pain. I have known of cases where a number of different sizes of shoes were purchased and discarded before it was discovered that the difficulty was flatfoot, and not a too short shoe. When a person with this trouble stands or walks, the foot is naturally elongated.

It would be beyond the scope of this article to enter into a technical discussion as to the anatomical changes in the bones of a foot in which the arch is broken down; but as I mentioned at the beginning of this article, flatfoot consists in the loss of the natural arch of the foot, thus making a low instep. Fig. 1 clearly shows this. If the instep is low, the foot is not properly held in its place in the shoe by the uppers,



Fig. 1. An adult's foot badly afflicted with flatfoot. Note the entire lack of arch underneath the instep. When the foot is in an arch-supported shoe, the instep is properly supported. For example, let the reader imagine he is standing with some curved object, such as a baseball, *underneath* the instep. This will give him an idea of how the arch is supported. The wearer of such a shoe soon becomes used to the support, and would not be without it.



and it continually slips forward to the front of the shoe, with the painful results just mentioned. An effort has been made by some makers to remedy this by making a shoe with the uppers smaller for an otherwise normal shoe, and a steel support is also inserted in the shoe to stiffen it where the unusual pressure from the broken-down arch is felt. Shoe props can also be purchased, which are meant to be placed in an ordinary pair of shoes, to support the arch of the foot. All these devices will aid if the disease has not progressed too far; but if it is anyway serious, they will not answer, and it will be necessary to have a shoe specially constructed, with the *arch support built in as part of the shoe itself.*

There are a number of other points to be remembered in designing such a shoe, and the writer will name them; but before he does so he will state that the popular idea that a shoe must be clumsy or of an ungainly shape to be suitable to use where flatfoot exists, is an entirely erroneous one. The shoes shown in the illustration were constructed for a bad case of flatfoot, where the patient had continual trouble and much pain. The ankle in this case would suddenly turn (with the danger, of course, of breaking) when the person was walking on a flat, smooth pavement, and the toes would rub against one another, causing the nails to cut into the skin; and they also rubbed against the shoe, again causing injury to the skin; and pains of various kinds were present in the leg. All these troubles ceased in a remark-

ably short time after a properly constructed shoe was worn. As will be seen by looking at the illustration, the shoes are not unsymmetrical in any way, and have graceful lines.

When one is having shoes made, it is important to see that the following ideas in addition to the others which have been mentioned, are embodied in their construction and design: The person for whom they are intended should stand upon a piece of paper, and a pencil should be run around each of the feet to obtain a correct outline of both of them. Then the exact length and shape

will be found; for when the weight of the body is placed upon the feet, they expand. Then other customary measurements can be taken with a tape measure and rule. When the shoes are being constructed, care should be taken to curve the toes upward, as in the illustration. If this is not done,



Fig. 2. Shoes made for the foot shown in Fig. 1 and outline drawing Fig. 3, and other foot shown in outline drawing Fig. 4. Note how toe turns up to relieve pressure on the toes of the foot, as was explained in the article. The arch supports, being inside the shoes, are of course invisible.

the pressure of the toe of the shoe will be painful, for the toes of the foot curve upward when flatfoot is present. The toes of the shoes must be built so that they will not rest upon the toes of the feet. The uppers must be carefully cut so that they will not be too far apart when the shoes are laced, and yet again not too close. If too far apart, the laces will cut the flesh; if too close, the ankle can not obtain sufficient support, a very important item in relieving flatfoot. A tongue is sometimes made of two thicknesses of material, and it is left open at the top so as to allow some material to be slipped into it if the uppers come too close together. This gives some chance



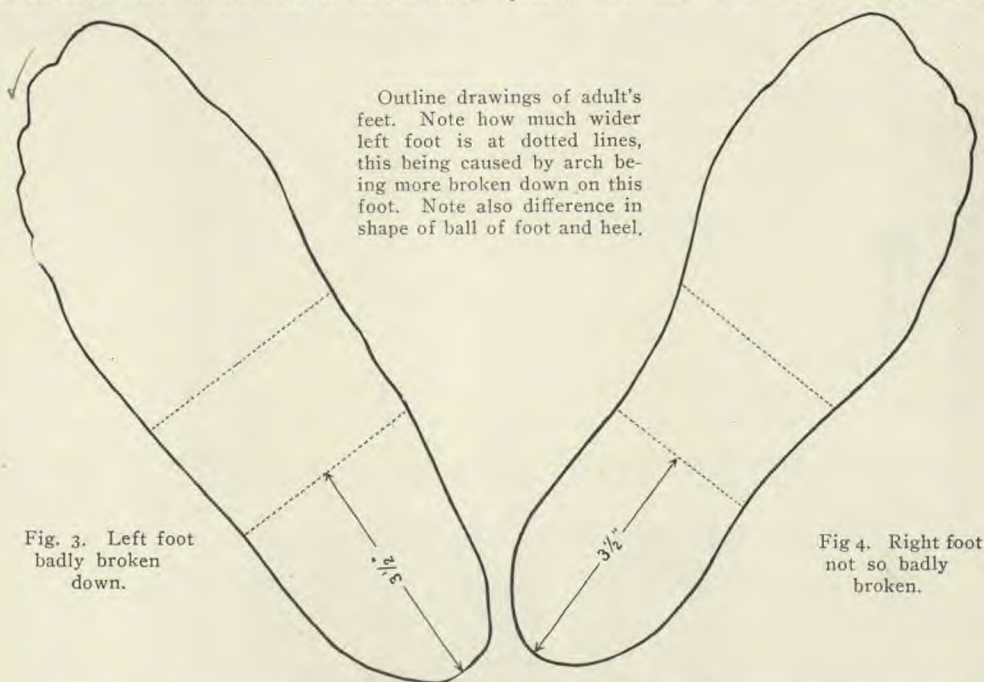
of adjustment and saves making new uppers, and also assists in preventing the laces from cutting into the flesh, which may happen if the shoes are tightly laced to give much support to the ankle. But in most instances if the shoe is carefully designed, and the built-up arch properly constructed, support of this kind may be given without lacing the shoe tightly.

A good test of a well-designed shoe is as to how it wears. If the first appearance of wear is in the *middle* of the sole,

idea of how necessary it is to support the arch properly.

In conclusion, the writer would advise any one who thinks that he is troubled with flatfoot, to consult a competent surgeon at once, and if he orders a specially made shoe, to go immediately to a reliable shoemaker who makes a *specialty* of such shoes.

A shoe that is well designed and carefully constructed will cost a good price, but one will never regret the



it shows that the shoe was correctly made, and that the foot is being benefited by it. Remember that after wearing the first pair of shoes out, the arch support can be made higher in the second pair, and this can be repeated in each succeeding pair until the limit is reached. The wearer can readily bear these changes because they come gradually. It feels very strange to any one who has worn a built-up arch shoe to put on an ordinary one, as the support of the arch of the foot is at once missed. It is astonishing how much pressure is exerted by the broken-down arch of a foot. The steel inserts are sometimes broken by it. By this one can obtain an

money paid, for in return he will obtain much comfort, and will in all probability also be spared a broken ankle, or some other serious injury. It is not best to try to economize by purchasing from a maker who does not make a specialty of such shoes. They require expert skill in their construction. When a second pair is made, the wearer should insist that the same workman who made the first pair shall make the second. The reason for this is that workmen differ as regards how tight they draw the various parts together, and also as to many other details; so to obtain comfortable and satisfactory shoes it is better to have the same workman make them each time.





## THE HYGIENE OF DEEP BREATHING

William J. Cromie, Instructor of Gymnastics, University of Pennsylvania

[This is the second article on this subject by Mr. Cromie. The first article, containing illustrated exercises and deep breathing for women, appeared in the March issue.—Ed.]

**T**here 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, favors 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,



Photo by Haeseler, Philadelphia

A B C  
Fig. 4. From position A, inhale deeply as shoulders are raised as in position B. Exhale as the shoulders are lowered as in C.





Photo by Haeseler, Philadelphia

Fig. 5. From position A, place finger-tips on shoulders, elbows front, as in position C, and inhale deeply as shoulders are forced back as in position B. Exhale from position B to C.

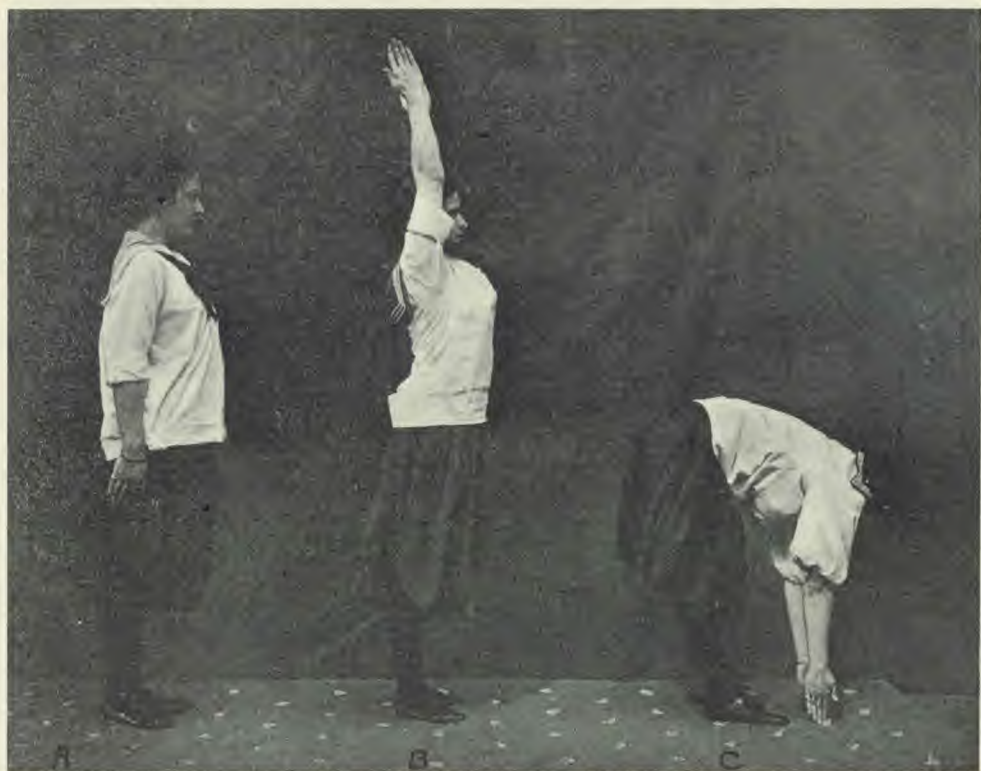
under restraint, and bubbling over with neuromuscular energy, so I could hardly get their attention, I would take out my watch and announce that I desired every boy to shout and yell continually for the following five minutes. It always worked like a charm. In like manner, the hurrahs of the applauding 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 overbalanced by a sleepless





*Photo by Haeseler, Philadelphia*

Fig. 6. From position A, inhale deeply while raising arms above head as in position B. Bend forward and touch floor with finger-tips, exhaling.

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 that 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 dioxide, 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 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 will-power. 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 endeavor 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 favor or assist the act of inbreathing and outbreathing. Authorities differ as to whether or not more air is received in the lungs in the various muscular movements which I have used in this article. While they are fighting it out, we shall use the arms, head, shoulders, etc., in connection with deep breathing, because these movements do strengthen the muscles required in this act, and give the results that we are seeking.

Some physical culturists advocate ta-



Photo by Haeseler, Philadelphia

Fig. 7. Clasp hands across abdomen and press in while inhaling. (See position A.) Release pressure, as in B, while exhaling.



king 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, as in Fig. 6, is not injurious, but rather beneficial.

You will observe that the muscular positions tend to favor 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 of these 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. Be sure you have plenty of fresh air during sleeping hours. There will be difficulties to overcome in the sleeping apartment during the winter, but if you realize that fresh air is very necessary, your ingenuity will solve the problem. Reread this article (begun in the March issue), start the breathing exercises, practise them six months, and — will, I shall let you pass your own judgment regarding their merit.



Note the breadth of chest. He practises deep breathing.





# STIMULANTS *and* NARCOTICS

## ALCOHOL AS A HABIT-FORMING DRUG

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

**I**F beer, wine, whisky, and other alcoholic beverages are not taken as a food, if they are not necessary to life and health, if they do not in any way benefit healthy men or women, then we may well ask, Why are intoxicating drinks used so universally and so freely throughout the civilized world? When athletes and men who wish to excel in health and strength avoid alcohol; when great scholars and literary men find that it does not help them in doing their best work; when business men and employers prefer abstaining workmen; when railway companies discourage the use of alcohol by their employees, and sometimes even forbid it entirely; when leading military men of the army and navy, such as Lord Roberts, Lord Charles Beresford, Gen. Baden Powell, Sir George White, and a host of others, both officers and men, are themselves abstainers, and seek to persuade their fellow soldiers and sailors to avoid strong drink; when we have great scientists and doctors of the character of Sir Victor Horsley, Sir Thomas Barlow, Sir Frederick Treves, Sir Alfred Pearce Gould, Prof. G. Sims Woodhead, and others too numerous to mention, earnestly advocating total abstinence; when great judges and lawyers, including the lord chief justice of England, leading civic authorities like Sir Thomas Vezey Strong, late lord mayor of London, and statesmen, such as Mr. Lloyd George and Mr. John Burns, and many others equally famous, recognize the evils associated with the trade, and strongly and earnestly discourage the use of intoxicating drinks; when great leaders of

both church and chapel, including the archbishop of Canterbury and Mr. Meyer, take, if anything, a still stronger stand against the use of all intoxicants; when thinking men and women of all professions and occupations are awakening to the dangers of alcohol,—then we ask again, “Why drink alcohol?”

### Alcohol as a Narcotic Drug

The answer to this question, at least in the case of the majority of drinkers, is simply this: Alcohol is a narcotic drug, which, by its peculiar effect upon the human system, creates an unnatural appetite, and excites a strong desire for a repetition of the drug, which finally dominates the will-power. In other words, alcohol is related to tobacco, opium, and cocain, all of them habit-forming drugs. Strictly speaking, alcohol is a drug, and only a drug, as far as its effect upon the human body is concerned, and the nervous system and brain are the tissues which are most susceptible to its evil influence. Although it is often called a narcotic stimulant, it is more correct to speak of it as a narcotic drug. The word narcotic is derived from a Greek term which means *torpor*, and it may be defined as a drug that is used to ease pain, benumb the nerves, and produce sleep. This explains the popular notion that the “whisky night-cap” or some other alcoholic drink taken at night, helps to bring on sleep.

Of course there are a few persons who take alcoholic beverages because it is considered the fashion to do so, and they do not wish to be thought odd or peculiar. But it is undoubtedly true



that a far larger number, including most of those who style themselves moderate drinkers, take the beverage because the appetite demands it, and they would sorely miss its influence.

#### Habit Drugs

A narcotic drug, whether opium or alcohol, has a double effect upon the brain and nerves, or rather, we may say, there is a direct action, and afterward a reaction. To begin with, the narcotic poison benumbs or paralyzes the nerves which carry the sensations of pain and discomfort, and, as a consequence, gives a temporary sense of well-being, comfort, and more or less exhilaration, and even excitement. The higher controlling nerve-centers which are directly concerned with the finer balance of the mind and good judgment, are also benumbed, and to a large extent put out of action. This explains the sense of irresponsibility and unwisdom, not to mention foolishness and silliness, often manifested by those who are under the influence of alcohol. With the temporary loss of these inhibiting and controlling centers there is also a loss of the ordinary responsibilities of life, and for the time being, the more or less intoxicated individual forgets his troubles, distress, and misery, and is prone to excesses and vices of various kinds to which he would never give way if he were in his right mind. He is obviously in an abnormal and morbid state, and it is on account of the perversion of his mind and judgment that he fancies himself very happy and comfortable, while giving way to convivial and carnal pleasures. This is the first stage.

The second stage is quite the reverse of the first, for the passing exhilaration of the spirits, loquacious, noisy, and foolish speech, and a happy-go-lucky, don't-care feeling are soon followed by the narcotic stage, with anxious care, worries, gloomy thoughts, and general mental depression. Now all the old difficulties, troubles, and miseries return multiplied in both form and force, and a state of wretchedness is often reached which is sometimes well-nigh indescri-

bable. Small wonder that the poor victim soon feels a craving for more drink in order again to bury his troubles, and escape from his misery. His aches and pains are also multiplied. He loses his appetite, and loses sleep, and is in no fit state for any sort of work or responsibility.

The brief picture which we have drawn is a lurid one, and only too true of those who have given way to the liquor habit for any considerable time; but it is by no means an extreme picture, for the final hell which is ultimately reached by the drunkard is delirium tremens, one of the most terrible of all known diseases.

#### The Craving for Drink

All habit-drugs have this in common that they produce in the one who uses them a craving for the narcotic, which craving gradually increases as time goes on. Undoubtedly some persons are far more susceptible than others to this terrible craving, and find it exceedingly difficult, if not impossible, to overcome the craving and conquer the habit. This craving for the drug soon becomes deep-seated, and seems to be a part of the very life of the victim. The appetite for strong drink develops in time into a veritable bondage which can scarcely be shaken off by the most supreme efforts. The man may recognize the evil; he may wish to give up the drink, and determine to do so, but it has got beyond him, and he is no longer his own master. He resolves to shun strong drink, to abstain from it entirely; but how long is he able to keep his pledge? The fact is that in many cases he has become so demoralized both physically and morally by the degrading influence of alcohol that he is utterly unable to withstand the temptation, and nothing short of a mild form of imprisonment under conditions which make it impossible for him to obtain any alcoholic beverage is successful; and even this success is often temporary, lasting only as long as the temptation is removed.

It is well to bear in mind that none of these habit-forming drugs possesses any



real curative value in the treatment of disease, and we are glad to know that medical men are using them less and less as they better understand their pernicious effects. A narcotic drug simply gives a sense of relief by paralyzing the nerves of pain, and to continue this relief it is necessary to keep repeating the dose. Many a poor wretch has become the victim of the alcohol habit from having the drug prescribed as a medicine by the attending physician.

#### The Formation of Habit

We are all prone to form habits of various kinds, physical, mental, and moral; and even such a simple thing as walking, which is an art a child must acquire by patient effort, soon becomes a fixed habit, and we come to do it finally in a sort of automatic way without giving it special attention. Just as long as these habits are useful, wholesome, and beneficent, they are desirable and entirely satisfactory. But it is just as easy, and perhaps some would say easier, to form bad habits than good ones. We are all most susceptible to the formation of habit in childhood and youth. Then the living cells, including the nerves and the brain, are in a soft, plastic state and most susceptible to influence of any kind, good or bad. The tender years of childhood and youth are the best time in which to lay a sure foundation for sound health, physical and mental and moral. Then the brain is easily molded for good or ill, and the habits which are fixed in youth are the most difficult of all to overcome in later life. Naturally, in youth, the body and mind are far more susceptible to evil influences of any kind than in adult life, and the habitual use, even in small quantities, of any narcotic poison, whether alcohol, tobacco, or opium, does far more damage than in later life. Both alcohol and tobacco are drugs which stunt the growth of the growing boy, dwarf his intellect, demoralize his morals, and mar his physical, mental, and moral powers for life.

Youth is the best time in which to form good habits, and the counsel of Solomon to "train up a child in the way he should go" is particularly sound advice with regard to the formation of habits in youth. The boy who shuns tobacco and alcohol in his teens is far less likely to acquire these habits; for when he arrives at years of discretion, he will understand better the terrible evils which always accompany them.

#### Avoid All Temptations

No one can take too great care to avoid all forms of temptation that would lead to the use of intoxicating drinks. This is a case when the counsel to "touch not; taste not; handle not," is in order. We think that medical men and women should be particularly careful when prescribing medicines, to avoid as far as possible anything which contains alcohol. Some persons are more susceptible to the influence of narcotic drugs than others, and it is a fact that many medicines contain a large percentage of alcohol, and are consequently not safe, even as medicines, in the case of those who are especially susceptible. We are glad to know that year by year doctors are giving less alcohol, not only in their private practise, but also in the hospitals. The liquor bill of the leading hospitals of London is steadily diminishing year by year, and at the same time the milk bill is rising, and this is as it should be.

Everything possible ought to be done to prevent the formation of the drink habit, the evils of which in demoralizing life, opening the door to disease, bringing bankruptcy and failure, breaking up homes, and sending men and women to the asylum, or even to a suicide's grave, or to some other terrible crime, can never be estimated. Let us bear in mind that the craving for alcohol, as well as for tobacco or for opium, soon becomes a chronic disease, which is always most obstinate to deal with, and in many cases, unfortunately, is quite incurable; and that the only safe and sure remedy is prevention.





## THE FARM BABY

Edythe Stoddard Seymour

X

### THE BABY'S BROTHERS AND SISTERS

**C**HILDREN are sometimes teased in a way that makes them jealous of one another, especially of the "new baby."

This teasing is very wearing on the nerves, and causes the children to become irritable. All babies should be welcomed by their brothers and sisters as a dear possession of their own, something that belongs to them as well as to the father and mother.

The greatest harmony prevails in families where the young are carefully trained to thoughtful acts of helpfulness, each seeking to give pleasure to the other members of the family. None are too young to take a turn at amusing the baby when he is old enough to play, and in this way the other children will become interested in him and learn to love him.

Little folk should have naps daily until of school age, and should have an early bed hour as long as they attend school. The custom of sitting up late causes dark rings around the eyes and a pale, haggard appearance: Children who are rebellious about leaving their play to take a daytime nap are little benefited by the nap. Various means may be tried to get them quietly to sleep. Rocking is not so good a method as allowing a soft toy for a companion, or placing a large flat pillow where the baby himself can pull it down for a crib when he gets tired; it will be necessary sometimes to

suggest that he do this. After the little one falls asleep, he should be properly covered. Going to sleep in this way, the baby does not have to endure the loneliness of the up-stairs.

Diet has so much to do with the activity and strength of a child's muscles and brain that I urge all mothers to keep the children on plain foods, well cooked, with very little (better none at all) meat, pastries, or fried foods, as long as they are attending school. Besides being stronger and less liable to disease when fed thus, the well-nourished child will be better behaved and a better student than the carelessly fed child. Cereals and fresh ripe fruits, or sauces made of evaporated fruit, are sufficient and suitable for the breakfasts; if possible, add fruit to the dinner and luncheon menus also; it is certainly a healthful and quickly prepared dessert. When the child comes in hungry from its active outdoor play, nothing is more wholesome for a between-meal piece than a luscious apple, a bunch of grapes or raisins, or a mellow banana. The list of available fruits and vegetables is so large that a careful selection and combination of different ones will furnish a well-balanced dietary without the addition of meat. Milk, if from a clean source, may be given the thin child with its meals; but the fat one, the one bordering on an overfat condition, should not be allowed to drink milk or much of any other fluid at meal-time;



nor should it be allowed to eat thin soups. Tea and coffee are not served by careful mothers nowadays. Cereal coffee and seasoned hot water (cambric tea) may be given for hot drinks.

Right here it would be suitable to add that the naps of an overfat child should never be taken directly after eating, but such a child should be encouraged to exercise for a half-hour; on the other hand, the thin child should sit quietly or take a nap after each meal.

The young should be encouraged to exercise freely, and not be obliged to sit sedately and "keep clean." If they are to be strong and healthy, this is as important for girls as for boys. An indoor play-room for stormy days should have some arrangement for vigorous exercise, and the windows should be fully opened even if a light wrap must be worn to keep comfortable. A punching-bag is inexpensive, and will please the boys. A trapeze made of stout ropes and an old broom stick, makes a splendid exerciser for the boy and his sisters. Just put bloomers on the girls, give them freedom, and watch them grow strong and rosy; they'll take to "stunts" like a duck to water.

Much of the time during the spring the ground is too damp for free romping out-of-doors, but a number of swings put up on a large tree will furnish amusement for a good-sized family of children and their friends. Use strong rope, and have several kinds of swings: the ordinary swing, with a firm seat, hung so as to swing high; a trapeze; a single rope with large knots to climb as a ladder, to swing straight from, or to grasp a knot at shoulder height, then run in a circle, let go, and swing around in "air-ship" style. A two- or three-year-old child will enjoy a swing just long enough to pass under the arms and around the chest; these little ones run a few steps, lift up their feet, then "let the old cat die," and repeat.

But children's lives should not be all play; there should be character building and training. Boys will make more capa-

ble men if they can cook a simple meal, put on a patch or a button, or make their bed in an emergency; they will be better able to appreciate woman's work and to estimate her strength, and will be broader minded, if they, as well as their sisters, are expected to assist the mother. And the girls will be better fitted to become wives and home-makers if they are their father's and brothers' good comrades, not thinking themselves too nice because of their sex to assist in outside "clearing up" of the home premises or in planting in the garden. I do not mean, however, that girls should be expected to take charge of the garden alone, nor to do work beyond their strength, nor be forced to do it at all if they really object. But a girl should, if rightly trained, enjoy the companionship of her father and brothers.

The sports are as good for this companionship as work is, and are equally healthful and wholesome for the girls and boys. Skating, rowing, swimming, golf, tennis, etc., are each available to girls and boys alike. Friendships made among congenial companions who have plenty of interest in outdoor amusements, ripen into a more wholesome, lasting love, when such occurs, than does the love that starts in cozy corners and among dancing companions, which flashes rapidly into a passionate infatuation, and after the settling down to the quiet home life dies out, each becoming tired of the other. Such experiences furnish Uncle Sam with his startling statistics that one home in every twelve has been broken up.

This state of affairs in a civilized nation is indeed appalling, and as mothers we each should try to rear our sons and daughters in the best possible state of physical and moral health. To this end we should see that they are not ignorant of the needed knowledge of the origin of human life, nor of their responsibility in such matters. If more attention were paid to proper training in such matters by the parents, there would be fewer mistakes made. Children should not be



left to learn these things from companions of their own age.

All young people should have the society of persons of their own age under the supervision of proper guardians in their own homes. Boys like a den of their own in which to entertain boy friends. Girls like to take girl friends to a daintily furnished room that is all their own.

When the young woman entertains a young man in the parlor, some member of the family should stay with them much of the time, and should be sociable and seek to make his presence

welcome. The caller should not be allowed to stay late, especially when the young people are not engaged. Careless mothers, thinking their daughters different from other girls, have made grave errors in these matters. The young lack judgment, and love is ever blind.

We should not only provide for and train our young, but ever guide and guard them so they may be fitted to become happy, contented home-makers. Each should early choose a vocation, and even make preparation for some temporary work that will provide a livelihood in an emergency.



WATTERSON SCHOOL

During the sessions of the school there is no difficulty keeping up the enthusiasm of the children.



# EDITORIAL

## IS THE STOMACH TO BLAME?

**T**HE mind of man probably reacheth not back to the time when there was not a suspicion that man's physical troubles come to him in large measure through his food canal.

But for the purpose of this discussion let us go back to Luigi Cornaro. This Venetian made a discovery which, while not equal in fame and general importance to that of his contemporary, Christopher Columbus, was vastly more important than has generally been conceded; for Cornaro, a confirmed invalid of forty, given up by his physicians as a hopeless case, found that by the simple expedient of reducing his diet to a minimum quantity of simple food, his premature senility was overcome. With this reduced and simplified regimen he lived on and on, gaining in health and vigor, and passing his eightieth, ninetieth, and one hundredth mile-posts, a splendid exponent of the simple life, and a shining example to all future generations of what careful living can do for the preservation and invigoration of the body.

Since his time, and especially within the last generation, there have been a host of food reformers, some laying particular emphasis on the number and times of meals, some on the nature and quantity of the food, some on the method of its preparation, and some on the manner of eating. These numerous food reformers have all agreed on one important matter; namely, that the eating habits of the mass of mankind are wrong, grievously wrong. The little detail as to what, when, and how man should eat, in order to make his habits right, is the only thing on which they differ. And to be candid, one must admit that here is quite a wide divergence.

There have been advocates of the "no breakfast," "no supper," and "one meal" plans, and of *no meal* for periods of a week or more; there have been advocates of a scraped meat diet, a milk diet, a vegetarian diet, a fruitarian diet, etc.; there have been advocates of overcooked and dextrinized foods, and of raw foods; and finally there have been advocates of thorough mastication.

This last system in its final development proposed to do away with practically all human ills by the very seductive method of eating only when the appetite calls for food, of only such foods as the appetite calls for, and enjoying the food by retaining it in the mouth as long as there is any taste, swallowing the taste and ejecting everything else. It is a marvel that such a simple gospel of health, involving no trouble and a minimum of expense, and giving increased pleasure during the meal, and increased health and efficiency, did not fare better than it did. It at least brought its author into the limelight, and added a series of words (Fletcherize, Fletcherism, Fletcherist, etc.) to our already overburdened English language. It would seem from the testimony of such a man as Einhorn, an eminent New York specialist on diseases of the stomach and intestines, that some victims of this method of diet were relieved of their digestive troubles only when they were persuaded to eat in a natural way.



In addition to this agitation of a popular nature, there has been more or less work of a more scientific nature, pointing to the intestinal tract as a point of entry of poisons into the system. Here again, as with the more popular food reformers, we do not find any unanimity as to details, though all realize the importance of the intestinal canal as the cause of disease.

It is my purpose to give in this and succeeding articles a sketch of the views of some of these men who, in the laboratory and at the bedside, have very carefully and conscientiously studied the subject of digestive disorders. And while we may find at times very great divergence in their opinions, yet we may be certain that for every opinion expressed these workers had a foundation of fact.

Bouchard in the eighties did a large amount of work in the investigation of autointoxication. He showed that the body is constantly manufacturing poisons, and that if it were not for the provision made for the transformation of these poisons into harmless substances, and for their elimination, the body would soon be overcome, and that whenever these safeguards fail to do their work the end is near.

He discovered that a very large proportion of the body poisons are elaborated in the intestinal canal, and that even in health these poisons are a menace to the individual. By the use of charcoal and other "antiseptics," he found that the intestinal poisons could be quite largely neutralized, without, however, decreasing the quantity of intestinal bacteria. That is, these things act on the bacterial products, but not very effectively on the bacteria themselves.

In diseased conditions of the intestinal canal with development of gas, etc., he saw evidences of general poisoning of the body, the most common of which are fatigue, depression, headache, disturbance of hearing and sight, and dizziness, these symptoms probably going no further, providing the kidneys are working well, but ending in uremic poisoning if the kidneys fail.

Bouchard, who seems to have regarded dilatation of the stomach as the most important disturbance of the digestive apparatus, gave the following word-picture of a patient with a dilated stomach. Such patients are usually large eaters, for they have a large capacity and the eating is not painful. But at the end of two, three, or four hours there is gas, heaviness, and belching. The feces are doughy, malodorous, and expelled slowly with pain. He believed that acetic acid is elaborated in large quantity as the result of the fermentations, and that it causes an inflammatory condition of the intestinal canal. The liver is congested and aching; there may be some yellowness of the skin or eyes. Among nervous symptoms he mentions morning depression, headache, sensibility to cold, sleeplessness, dizziness, and disturbances of sight. Of skin troubles, he mentions excessive perspiration, eczema (tetter), acne (pimples), and urticaria (hives).

Professor Bouchard gives as causes of dilated stomach, excessive eating and drinking, bolting the food,—“for a fine mechanical subdivision of the food is necessary for its digestion,”—irregularity of meals with short intervals, which necessitate the introduction of more food before the stomach is empty.

Under the heading "Alimentary Hygiene," he advises that the stomach be distended as little and as seldom as possible, and for the shortest time possible.

“There must be neither eating nor drinking between meals; the meals must be widely separated from each other. To eat once a day is



impossible; if we make two meals, should these be separated by twelve hours? — No, the needs of the organism are much less during the period given up to repose. We must allow nine hours between two meals as the interval by day, and fifteen hours as the interval by night. This infrequency of meals is sometimes sufficient to cause heartburn and sensations of heat to disappear, and to arrest the emaciation of patients, who should moderate their appetite in order to prevent their pains. As a rule, we must allow patients three meals per diem, with an interval of eight hours between the two principal ones, and four hours between the first and second."

The meals should not be copious, but substantial. He advises that we suppress everything that is not necessary, and especially dishes that are made with water, that is, liquid foods, for the reason that these increase the bulk. Yet he thinks it important to give sufficient, and even more than sufficient, food for the nutrition of the body.

"As digestion requires that the food should be not only softened, but penetrated by the gastric juice, it must not be fatty. The stomach is not called upon to digest fat, but the latter might prevent the stomach from digesting what it ought by preventing the hydrochloric acid of the gastric juice from softening, penetrating, and hydrating meat and other alimentary substances. It is better still to have the fat emulsionized, as in milk. The fat should be divided as much as possible." This, of course, requires thorough mastication. "It is necessary to avoid as much as possible everything that may have a tendency to induce fermentation — alcohol, which furnishes acetic acid; acid substances; and certain parts of bread. Wine is certainly unfavorable, especially red wine, and above all, poor red wine. . . .

"Bread is generally badly borne by dyspeptics, but rice, barley, oatmeal, and unfermented pastes are allowed. . . .

"Patients ought to take nothing between meals, and should strongly resist any impulse of hunger or thirst, when even this resistance would cause them suffering and in spite of the momentary relief which satisfaction of these desires would appear to give them. . . . Meals should be taken slowly, and mastication should be slow enough to reduce the food to a pulp.

"It is necessary to insist upon the prohibition of liquid elements which dilute the gastric juice, and of foods which remove from the action of this juice the solid alimentary substances, and to insist upon the advisability of eating only a little bread."

In our next issue we shall consider the work of Professor Metchnikoff.

*J. H. Kealy.*





**The Food of the Future** It was a relief to turn from a book written by one supposedly an authority on foods, who said of nuts that "they are agreeable but have little value as food," to an article in the January *Harper's Magazine*, written by J. Russell Smith, professor of industry, University of Pennsylvania.

This article on "The Agriculture of the Future" shows that our cereals and other food plants have come down to us from our primitive ancestors, who cultivated the plants which would yield the quickest return, and for this reason their cultivation was entirely of the annuals; and yet that cultivation has so measurably improved the plants which they have used that we can scarcely recognize the wild plants from which they came.

By means of our present knowledge, says Mr. Smith, these annual plants may be largely superseded by the tree crops, which, though they take a longer time to yield the first return, give eventually a much greater return for the labor invested and the land occupied. Moreover, these crops can be grown in many places where the grains would not thrive; and as the grains have been marvelously improved by cultivation, so we may expect that we may have the same result in the improvement of both quality and quantity of return from the nut and other tree foods. To quote:—

"As population advances and increases, there is a tendency for us to change the nature of our food supply. In new countries we grow a crop, feed it to the animals, and then eat the animals and their products. As population increases, we tend more and more to eat the plant products ourselves. As this change comes, the tree crops advance more and more toward the exact filling of our needs. The physicians, the 'cures,' and the health-food faddists are more and more calling us away from meats and grains and high cook-

ery to the diet of nuts and fruits. The table of food values shows that the nuts far outrank flour, and even eggs and meat, in protein, and that they also furnish fat and carbohydrates. To keep such highly concentrated food from doing injury, the fruits furnish the necessary bulk, succulence, and acids. In the Mediterranean countries the tree farmer, with his olive-orchard and its oil, has already given us tree-grown butter, which, by the way, keeps, while the more expensive animal product promptly spoils. Incidentally, it is very significant that Italian olive-oil is cheaper now in American cities than American butter is, and our olive industry has barely started. The nut-trees show us equally good substitutes for meat and bread, while the fruit-tree gives us fruit. It is quite generally claimed by anatomists that the human digestive tract was made for a diet of fruit and nuts, which, therefore, are even now likely to be our most normal diet."

Perhaps some day we shall get over the notion that the person who finds that he can live better and healthier on the fruits of the earth than on the flesh of animals is a *faddist*!

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**Toxicity of Meats** I HAVE before me an article entitled "Suggestions Regarding the Nature and Treatment of the Toxemia of Pregnancy."<sup>1</sup> Toxemia, as the reader may know, is blood-poisoning. The condition of which this author was writing is one that is not at all uncommon, and it is one that he believes is entirely preventable. In other words, he believes that it is due quite largely to the food that is eaten by the patient, and that a regulation of the diet would prevent it. We quote what he calls "two well-known clinical facts," as follows:—

"The best means we have to prevent the toxemia of pregnancy from reaching the pathological stage, that is, from overcoming the de-

<sup>1</sup> Long Island *Medical Journal*, November, 1912.



fenses of the patient, is to take all food of animal origin, except milk, from the diet. That is the essential part of the treatment, and if done early enough, is sufficient to safeguard the patient from toxemic manifestations in all but a comparatively small number of exceptional cases.

"The surest way to bring on disaster in a patient who shows intolerance of the toxemia of pregnancy is to include in her diet plenty of meat, fish, poultry, eggs, and soup."

His reasoning upon these observations I can not take the space to give in full, but I shall make an abbreviated quotation:—

"What is the meaning of these two facts? It seems plainly to be this: that in animal food, except milk, there is something which can make an otherwise harmless amount of toxemia of pregnancy harmful and even fatal, and that this something is absent from milk and from food of vegetable origin. . . . This something . . . can be identified as the poisons which result from the putrefaction of animal protein in the intestines, which the overworked and improperly regulated liver can not properly dispose of, or which the overworked and improperly regulated kidneys can not properly eliminate, or to which the tissues are abnormally intolerant."

The fact is, as he says, the most important element in the mixed toxemia of pregnancy is very likely chronic putrefactive toxemia of intestinal origin. Many physicians have come to realize that the proteins of meat are more favorable for the production of such toxemia than that of milk or of vegetable origin.

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#### Guard Your Milk Supply

A NUMBER of recent extensive and milk-borne epidemics, some of them traced to dairies in which up-to-date methods are used, emphasize the importance of some form of milk disinfection. More and more the authorities are coming to favor Pasteurization, and we would suggest to milk users, especially those who have small children, that where the milk is not Pasteurized, it is wise precaution to "bring the milk to a boil." This will usually destroy the harmful germs, and will not materially affect the quality of the milk. We would not suggest boiling the milk as a substitute for securing good, healthy milk from clean dairies. Dirty milk from diseased cows and dirty dairies is not a fit food even when boiled. But

in any case, whether the milk is from a dairy that is doing all in its power to prevent infection or from one of the other kind, boiling will at least lessen the chance of infection.

One does not like the inconvenience of paying out premiums for fire insurance every year, but if the fire does come, one is exceedingly glad that he took this precaution. In the same way one might possibly go for years without a case of bad infection from the milk, and yet when that case of infection does come, it would afford little consolation to realize that the death might have been averted by simply boiling the milk. "It is better to be sure than sorry."

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#### Alley Houses and Disease

DR. WOODWARD, health officer of the District of Columbia, has reported that the infant mortality in the alley houses of Washington is 375 per thousand, while that in the regular streets is 157 per thousand. More than two babies die in the alley to one in the street. The movement to abolish the alley is a movement to raise the general average of living, and to raise the type of our future citizens, for this baby death is not the whole evil. There is also a lowering of vitality among those who survive, a lessening of efficiency, and a perpetuation of a low-pressure, low-grade population, the creation, in fact, of the type too familiar in Europe, which we should do well to avoid here. That the type is amenable to the environment is evident from the fact that the children of immigrants, when under good conditions, develop much better physically and mentally than their cousins remaining in the old country.

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#### Intestinal Antiseptics

At the Atlantic City meeting of the American Medical Association a paper was read by Dr. Norman H. Harris, giving the details of laboratory work performed in order to determine the value of intestinal antiseptics, in which the results are doubtful, to say the least, as to the value

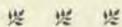


of antiseptics in the prevention of intestinal decomposition. In the discussion, former Surg.-Gen. George M. Sternberg, of Washington, an authority on bacteriology and author of a well-known text-book on the subject, said:—

"I think it extremely probable that the negative results from the use of the so-called intestinal antiseptics will, by further researches, be shown to be what might be expected. Indeed, I have never had any special faith in the use of intestinal antiseptics that have been proposed and largely used by the profession. I do not mean to say that they may not have had a valuable therapeutic effect, but that that effect was from destroying the micro-organisms in the intestinal canal I have doubted very much, and this doubt is confirmed by the paper I have just heard."

Dr. Horatio C. Wood, Jr., of Philadelphia, who has made a special study of the effect of drugs, then said, among other things:—

"The effect of antiseptics on the colon seems to me to be a problem which is hardly worth the solving. As a practitioner of medicine, I never expect to get any antiseptic action in the colon from an internal antiseptic. I think it is absolutely hopeless. What we want to do is to find some drug which will influence bacterial multiplication in the upper part of the intestine."



**Non-Drug Treatment** At the last Atlantic City meeting of the American Medical Association Dr. Philip Marvel, of Atlantic City, made an appeal for the more frequent scientific employment of physical therapeutics, that is, non-drug treatment.

In the discussion of the papers, Dr. Wm. G. Schauffler, of Lakewood, N. J., stated that the great trouble in the use of physical therapeutics lies in two facts: most medical men do not understand either the principles or the means of application, and being careless in their work, they are apt to be disappointed in their results, and physical methods are discredited. "There are enough good results," said the doctor, "from the employment of physical therapeutics to justify the use of such methods by all practitioners." A number of patients will be relieved by such methods who could ob-

tain relief in no other way, according to Dr. Schauffler.

Dr. Solomon Solis Cohen, of Philadelphia, does not believe the schools are to blame, for they are teaching these physical methods, and some of them have been so teaching for a quarter of a century. The trouble is with the medical societies, where, if one attempts to present a paper on one of these subjects, he is heard with polite indifference, or more commonly he is not listened to at all. Dr. Cohen thinks it no wonder that these methods fall into the hands of charlatans. He admits, however, that there is a tendency on the part of those advocating physical methods, to claim too much for them, and thus cast discredit on all such work.

Dr. Ben Hirsh, of Philadelphia, said:—

"It is a curious fact that American physicians have until now viewed the subject of non-drug treatment askance. They look upon the reports of improvement without drugs as something irregular. On the other hand, we are all aware of the fact that many patients go abroad year after year, visiting foreign spas counseling with specialists, and we know that they receive help from the various non-drug treatment methods. Something must be radically wrong here at home."

Dr. John Mumford Swan, of Rochester, N. Y., said:—

"For the last two years I have been engaged in the direction of various forms of physiological therapeutics, and I have been much astonished at the amount of benefit that it is possible to produce without the use of drugs in patients suffering from chronic diseases. In all probability the principal reason why these methods are not more frequently used is that the majority of the members of the profession are unfamiliar with them and with the results obtained by them."

This is very important testimony as to the value of non-drug methods, coming, as it does, from an important section of the American Medical Association.



**Alcohol Recognized as Commercially Evil** NOT only is alcohol recognized as a foe to man physically, mentally, and morally, and also socially, but latterly it has been recognized as making



an individual unfit as a producer, unfit commercially; and when it is seen clearly that the use of alcohol materially lessens the profits of large industrial concerns, its end is in sight. A recent issue of the *Journal A. M. A.* says:—

"The use of alcohol is receiving some hard knocks these days. A prominent railway system, not content with the general rule heretofore in force on railways forbidding employees to drink while on duty, now forbids employees to indulge at all in drinking out of employment hours, or in other conduct which will impair their health or make them less alert and less capable while on duty. The owner of one of the national baseball teams announced that moderation in drinking is not sufficient. The players on his team must leave alcohol entirely alone and abandon cigarettes. The justification for such rules may be found not only in the advantage of being moderate in indulgence, but also in cumulative and after-effects of dissipation. The world is moving; the old fetish of 'personal liberty' at whatever cost of danger to the public at large, seems to be losing its power. The time may come when every man to whom the life and safety of others are entrusted may be expected or even required to be abstemious, as the baseball players and railway employees just mentioned."

And why not? why should the railway engineer or a pilot or any man in responsible position have the personal liberty to use a substance which we now know absolutely is not needed for his welfare, and which, if used, may endanger the lives and property entrusted to his care? The "taboo on moderate drinking," as the *Journal* calls it, is certainly in sight.

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**Antinarcotic Bill** A BILL has been introduced into Congress by Representative Harrison, of New York, providing that every person who imports, exports, produces, or manufactures opium, morphin, cocoa leaves, cocain, and other salts and derivatives or preparations, sells or gives away any of these drugs, or preparations containing them, shall register with the collector of internal revenue of his district. There is fixed a tax and a fine for those who fail to register.

To tax the sale of these poisons is to legalize and hence make respectable a disreputable business, just as the taxing

of liquor made Uncle Sam a partner and defender of that iniquitous traffic. This was the history of the liquor traffic, and will be the history of the narcotic traffic if this bill is permitted to pass.

It is *not* an antinarcotic bill. At the present time certain States are passing severe laws against the sale of these narcotics, especially cocain. But let the United States once put a tax on their sale, and it will largely nullify the laws of the States.

*The taxing of a criminal vocation is a crime.* Why not issue a tax legalizing bandits, highwaymen, burglars, thugs, highbinders, safe-crackers? It would be just as reasonable. The method of the State of New York is more in keeping with the deserts of the people who deal in these health- and life-destroying drugs. He who is caught selling illicitly—and all sale except for medicinal purposes is illicit—is to be punished by a penitentiary term of seven years. It is to be hoped that the New York bill will pass and the federal bill die.

Another condemnation of the federal bill is that it is worded so as specifically to favor the patent medicine men, and to compel every physician who uses a hypodermic to take out a license. In other words, it places a penalty on the only men who should legitimately handle these drugs.

The bill is vicious, and only vicious, though possibly the originator of the bill may have had good intentions.

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**Beautiful Versus Fashionable Dress** IN the *Journal of Home Economics* of November, 1912 (published at Roland Park Branch, Baltimore), Mrs. John C. Hessler, discussing better dress standards, makes the following very fine distinction between beauty and fashion, which is well worth passing on:—

"The question of dress can not be separated from artistic standards. The Puritan can not lastingly prohibit beauty in costume. The love of beauty grows in humanity along with its spiritual growth, and is one of the spiritual elements of life which should have



its part in the furnishing of the home and the clothing of the family.

"Beauty in woman's dress lies in the attractiveness of material, both in fabric and in color, in the grace, continuity, and consistency of line, in the design of garments, and their adaptability to the wearer and her needs. It does not lie in complicated decoration. We look to dress, and rightly, to enhance natural beauty and to conceal natural defects. These standards of beauty are not pecuniary standards. They are for rich and poor alike. But instead of beautiful clothes, most of us are satisfied with fashionable clothes. We have accepted the spurious substitute, fashion, when we have gone to buy beauty.

"In this day of the marvelous intellectual and social growth of women, it is a matter of wonder that women still unreasonably obey fashion. Fashion grew in the proud desire of the royal princess—or the money princess—to produce by the dress a sharp distinction between herself and inferior mortals. These inferior mortals persistently imitated her as quickly as they could, to destroy this distinction. But the growth of intelligence and of a more sympathetic humanity is slowly remedying this; that it has lasted so long is because the fashion mania has been fostered. Women through their love of change have been exploited commercially by means of great foreign dressmakers who make the styles."

Mrs. Hessler proceeds to explain the origin of the present American styles, to show how these styles are exceedingly wasteful of money, and how they throw the burden of useful work on those who can ill afford it, and then she continues:—

"After all, the greatest loss in dress is not the loss of money, great as it is, or even the injustice to the worker. It is the loss of womanly dignity and stability of character which accompanies the dissipation of time, labor, and thought, which is the result of false standards."

She believes also that woman is suffering moral degradation from prevalent fashion. "This has come about so gradually," she says, "that many of us do not realize how our standards of personal modesty have been blunted. We women have not realized that we have been watching, or with innocence of evil intent taking part in, the breaking down of barriers between virtue and licentiousness. This is the very serious reason why the question of dress should be treated so frankly."

Mrs. Hessler believes that the reform lies in a better system of education for

the young; that boys and girls in the schools should be taught how to choose textiles, shoes, and other articles of dress; in fact, that they should learn to be intelligent consumers.

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**Children's Gardens** IN the January *Child-and Life Welfare Magazine*,

Dr. Helen C. Putnam, who has been so long known as an exponent of right educational methods, has an article on "Children's Gardens and Life," in which she makes the following very significant statements:—

"If every study but gardening were taken out of grammar grades, and gardening were brought up to the excellence it has attained in a few schools, we should be further along on our way to better parents of better children. We shall be still further along when it is brought up to its full educational possibilities."

"Separate the child and the garden, and we breed a little Frankenstein—a man made body, mind, and soul, with vagaries that we call backwardness, ill health, juvenile delinquency, vulgarity, crime, sin."

Those who do not realize to what extent child gardens can influence the child life will perhaps be inclined to think these statements are exaggerations, but not so those who have had an experience with the influence of the garden on the home child life.

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**New Cause Suggested for Pellagra** Two Washington investigators, Jennings and King, as the re-

sult of careful investigations which show the improbability of sand-fly and other insects (flea, louse, bedbug, mosquito) being effective in the transmission of pellagra, give some reasons for believing that the blood-sucking stable-fly may be the insect that is the agent of transmission. To quote:—

"In most places it is abundant, even excessively numerous, and is closely associated with man and his domestic animals, breeding about his outbuildings, frequenting the vicinity of his dwellings, and even entering them sometimes in considerable numbers. Although it prefers to attack domestic animals, it readily bites man with frequency, but with some irregularity, depending apparently upon meteorological conditions and immediate availability of its normal prey."



As a reason why the Southern towns are not exempt from the ravages of pellagra, they say:—

"The majority of the cities and towns of this region are, from the point of view of *Stomoxys* (stable-fly) propagation and distribution, rural communities in that they offer facilities for both these functions which are not inferior to those existing in the country districts. The densely built-up business sections are of small area when compared with the spaciouly planned residential districts in which houses are surrounded by lawns and grounds of greater or less extent; and the keeping of domestic animals, principally horses and cows, is almost universal. The breeding of these flies takes place not only about the private stables referred to, but in and about the public stables and wagon yards in business sections. As a result, the stable-fly is to be found in all parts of such towns, and in the small ones it is numerous everywhere."

It is in such towns that pellagra occurs endemically, or in other words, it is always present. The fact that the women are more frequently around the horses and that they usually milk the cows, would explain why they are more likely to be bitten by these flies, and as a result, why there are more women than men victims of pellagra.

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#### Therapeutic Nihilism

VERY much has been said recently in a sarcastic manner about the nihilists who deny the efficiency of drugs, and there has been rather a tendency on the part of certain medical men to swing back to a greater faith in drugs. Such will not receive very much consolation from reading the following quotations from the book "Infection and Immunity," by Chas. E. Simon, professor of clinical pathology and experimental medicine in the College of Physicians and Surgeons, Baltimore:—

"The days of therapeutic empiricism are fortunately coming to an end. From the standpoint of curative therapy they have brought us too little that is worth retaining—cinchona-bark, the gift to the Peruvian Indians for the treatment of malaria; and mercury, the rem-

edy of the Talmists, as a problematical cure for syphilis. As regards the *curative* treatment of the remainder, not one of the hundreds and thousands of pharmaceutical preparations that have been introduced since the days of the Vedas, has been shown to be of value, if as evidence of a curative effect we demand a shortening of that period of time which the animal body itself requires to accomplish a cure. We have learned to *prevent* many diseases by the elimination of the corresponding infecting agents from our midst; cholera, plague, typhus fever, typhoid fever, yellow fever, smallpox, malaria, and diphtheria are diseases which, if they still exist among civilized people, do so with the consent of the people in the face of a full knowledge of the manner of their prevention."

Then after speaking of the surgeon, who, he says, is very often not in a position to assist nature to accomplish a cure, he continues in regard to the internist, or as we may say, the medical doctor:—

"The latter may be the most skilful diagnostician, an excellent pathologist perhaps, but he does not cure the disease with which he is brought in contact. He may in a measure influence some diseases by his directions for general care of the patient, but as a rule the patient dies or recovers irrespective of his therapeutic efforts, in so far at least as these efforts are based upon ancient empiricism. Typhoid fever patients still pursue the same course which is so well described by physicians of the medieval ages; our pneumonia death-rate is still where it was when the earliest records on the subject were kept, and it is virtually the same for the millionaire in his marble palace, surrounded by doctors and nurses, as for the tramp, cared for by the roadside by his brother tramps. The 'virulence' of an epidemic of scarlatina or measles may vary, but our death-rate in the long run is virtually the same. Where active progress has been made in the treatment of disease, such progress has been due, not to our therapeutic endeavors by means of drugs, but to the recognition, be it ever so slight, of other factors by which nature herself, unaided and at the same time unhampered by empirical drug treatment, seeks to accomplish that end. For after all, the very thing which physicians have sought to accomplish in all the centuries that have passed, namely, the cure of disease,—that very thing nature has accomplished by herself, before our eyes, countless of millions of times. Nature herself cures seventy-five per cent of the pneumonia cases, the physician fails to cure any; for surely he can not claim as his own what nature does, and he evidently loses the twenty-five per cent that nature loses."



# THE MEDICAL MISSIONARY AT WORK



## AITUTAKI, COOK ISLANDS

Mrs. Geo. L. Sterling

**I**T is now nearing two months since we arrived on Aitutaki to stay. We have been very busy ever since we came here. The natives did not know at first that we knew anything about caring for the sick, neither did they know that we had any sympathy for their sick ones. Gradually they found it out; and now whenever we visit the natives in their homes, the sick are brought to us, or we are requested to visit them. And when we go to other villages to hold meetings, invitations frequently come to call at near-by houses to see the sick. In some cases we are able to render assistance by means of simple treatments; other cases are beyond our ability. There is no doctor here, and many cases are in need of a skilled physician's care. Some need surgical operations. There was a physician here some time ago, but he did not feel that he could remain with no better compensation than that which the natives paid him. The resident agent of the Cook Islands administration carries drugs, but he has but little medical knowledge, and in many cases only guesses as to what may be the malady, and deals out medicine accordingly, without ever seeing the patient. This in many cases proves worse than no medicine at all. The Catholic mission here on the island also dispenses some medicine.

Two government doctors are stationed at Rarotonga, and occasionally one or the other visits the out-lying islands of the group, including Aitutaki. One is

expected here again soon by the London Missionary Society mission ship "John Williams."

There is much suffering among the women and children. Just recently I was called to see a very small baby who I was told had not had a movement of the bowels for a full week. Its little body was covered with a rash, and even some pustules had appeared because of the poison. It seemed much relieved after treatment.

There is more superstition among these people than I at first thought. They have learned that the foreigner does not sanction such ideas, so they do not talk them to us unless we question to draw them out. Many times they attribute sickness to an evil spirit, saying that this or that person has a *maki tupapaku*, or is made sick by an evil spirit. One would hardly expect to find a people believing such a doctrine after having heard the gospel of Christ for ninety years; but those old superstitions are hard to forget. Usually, when it is thought that a patient is suffering from a *maki tupapaku*, a native doctor is called, who at once sanctions that idea and lays the blame on the spirit of a relative who has died, or sometimes a living relative may be accused. He administers some sort of crude treatment, or gives orders to have the patient removed to another village or to the house of another relative. At times he will do nothing for the sick, saying that there is no use, for if it is a sickness caused by an evil spirit the individual will die



anyway. In such cases lives are lost that might be saved.

When we arrived on Aitutaki, there was a new-born baby in a part of the house in which we were to live. After about ten days it developed something like fits. The natives soon circulated the report that the grandmother of the child, who had been dead some time, was angry because her mosquito curtain had been given to the young mother and baby to use; therefore the child was being tormented by the old grandmother's spirit, causing fits.

As we associate among the people and behold their utter ignorance of the laws of hygiene and cleanliness, we pity them. It requires patient teaching and example to bring about any change. There are some very loathsome diseases here. These are made even worse because of

the insanitary condition in which many of those live who have them. Some forms of leprosy also exist here, though those who are known to have it are banished to a small island off the coast. I am sure there are cases ashore now that should be sent there.

I have many times felt thankful to God for his care over us that none of these diseases have fastened themselves upon us. He has left on record his blessed promises for our encouragement: "There shall no evil befall thee, neither shall any plague come nigh thy dwelling. For he shall give his angels charge over thee, to keep thee in all thy ways." Ps. 91: 10, 11. "They shall take up serpents; and if they drink any deadly thing, it shall not hurt them; they shall lay hands on the sick, and they shall recover." Mark 16: 17, 18.

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## JAVA

### A Nurse

OUR work here is becoming more interesting as the days go by. As we meet with the Javanese in the villages, we find opportunity to scatter some seeds of truth, which we hope will fall into good ground. Often the people listen attentively as we, in simple words, tell of God's love to man, and his plan of redemption.

We have been treating one poor man for eleven months. His leg was in a serious condition, nearly half the skin from the knee down to the toes having come off. It has almost healed up now, and he walks about quite nimbly. He told Brother E. K. Hungerford the other day that the way to get the people to listen is to treat the sick, and then they will come to listen. This is a bit of his own experience. I read to him from Matt. 5: 1-8 the last time I went to see him, and he told me he understood it all.

We have many times spoken to him

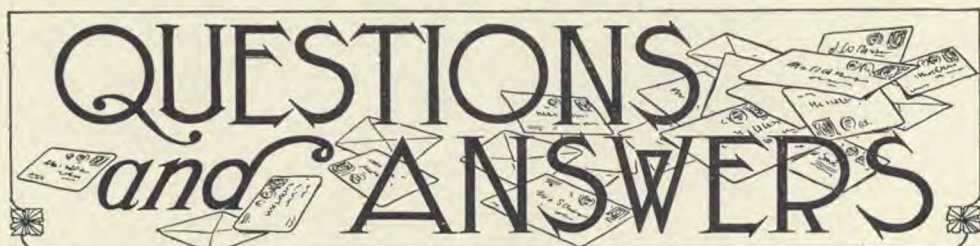
and others who gathered in his home, of the truth in a very simple manner, and prayed with and for them, and he says he believes in the gospel.

A poor lad came to us yesterday who has had malaria for a long time. He asked to stay until he was better, saying he would do whatever we wanted him to do in return for help. He gets out into the sunshine, cleaning up the pathways by pulling up the weeds, etc., thus getting a little exercise.

Whenever we get an opportunity, we endeavor to distribute literature among the people; but very few in the villages can read, not one, perhaps, in two or three hundred. However, schools are being opened in various places, so some of the rising generation will soon be able to read. Thus Java is being prepared to receive the printed page. May God help us to be wise in scattering the seeds of truth.



# QUESTIONS and ANSWERS



THE editor can not treat patients by mail. Those who are seriously ill need the services of a physician to make a personal examination and watch the progress of the case. But he will, in reply to questions sent in by subscribers, give promptly by mail brief general directions or state healthful principles on the following conditions:—

1. That questions are *written on a separate sheet* addressed to the editor, and not mixed in with business matters.

2. That they are *legible and to the point*.

3. That the request is *accompanied by return postage*.

In sending in questions, please state that you are a subscriber, or a regular purchaser from one of our agents; or if you are not, accompany your queries with the price of a subscription to LIFE AND HEALTH. This service is not extended to those who are not regular readers.

Such questions as are of general interest will, after being answered by mail, also be answered in this department.

**Magnetic and Electric Appliances.**—"My wife is troubled with muscular rheumatism. Magnetic belts, corsets, foot-pads, etc., have been suggested. Do these things really produce electricity, and are they of any value?"

These magnetic and electric appliances you can set down as simply frauds. They produce about as much good as a potato in the pocket. Some persons think that carrying a potato relieves their rheumatism. It is all suggestion, and so with these various magnetic and electric appliances.

**Is Corn a Protection?**—"My children have a great tendency to sore throat, etc. Would you advise feeding the family with corn-meal or other corn products to produce heat energy, in order to protect against disease?"

Decidedly not. While corn-meal contains a certain amount of energy, yet there are too many persons who live on nearly an exclusive corn diet who are very poorly nourished. I think it is very easy for one to overdo the use of such foods.

**Shingles.**—"Please tell me what is the nature of shingles, its cause, and what to do for it."

Shingles, or herpes zoster, is a neuralgia or a neuritis, accompanied by a breaking out of the skin in small blisters along the course of the affected nerve, usually one of the intercostal nerves on one side. These blisters should not be ruptured nor broken. Apply oil and cover with a bandage to protect from the clothing. While these attacks are very annoying, they are not dangerous, and are not very likely to recur.

**Water-Brash.**—"What causes water-brash? and what is good for it?"

Water-brash is a name given probably to two different conditions,—one in which tasteless eructations are brought up from the stomach in the case of women of middle age, and the other in which acrid or bitter material

is regurgitated from the stomach, owing probably to some dietetic error. There is one form in which water-brash seems to follow the use of oatmeal, probably from the formation of butyric acid in the stomach. It may be that in some cases a little change in the diet, the avoidance of rancid butter or oatmeal, may relieve the trouble. In cases where it can not be traced to any dietetic error, it would be best to obtain the advice of a physician as to its cause.

**Bran Bread for Constipation.**—"What do you know about the use of bran bread for constipation?"

Nearly all cases of constipation are relieved by the use of coarse foods. By relieved I do not mean that the condition is cured, but so long as the coarse foods are eaten, the condition is less troublesome, and very often coarse foods, with nothing else, may entirely relieve the condition as long as they are used. Bran bread is one of these, and serves a very good purpose.

A simpler preparation is the bran and molasses cake, consisting essentially of bran and molasses cooked in the oven in the form of pudding, and then cut up in squares, and used as needed. Both the bran and the molasses have a laxative effect. This of course would hardly be advisable with one who has fermentative trouble from the use of sugars. Again, one can take the bran itself, say a tablespoonful of bran in a glass half full of water. Stir it in, and drink it before breakfast.

To make bran bread, I should suggest the use of an ordinary bread sponge, and in kneading this out for bread, add as much clean bran as can be worked in and still permit the bread to rise fairly well. This would be a matter of experiment with the intelligent housewife.

**Abdominal Girdle for Constipation.**—"Describe the moist abdominal girdle for constipation. Is there much virtue in its use?"



A moist abdominal girdle is prepared by having sufficient gauze or similar material to make a girdle of from three to seven thicknesses, say ten inches wide and long enough to extend once and a half around the trunk. This should be wrung out of cool water and placed snugly around the trunk just above the hips, and over this a larger flannel girdle, perhaps part of an old blanket, drawn snugly enough to prevent evaporation from the damp cloth, and pinned securely. Even better results may be obtained by having an oiled silk between the damp cloth and the flannel. The purpose is to prevent all evaporation which would tend to chill the body, and in a short time the bandage becomes quite warm, and acts as a continuous fomentation. The parts should be rubbed with cold water and dried thoroughly in the morning when the bandage is removed.

In some cases this is beneficial in constipation. It should be remembered, however, that constipation is simply a symptom which indicates some dietary errors or some other cause of indigestion which must be corrected in order completely to correct the constipation. There is no one remedy that can be relied upon as a certain relief from this trouble.

**Bitters.**—"What do you know about — bitters? My boy claims they relieve him when he has distress in his stomach. He takes them also for constipation."

We are constantly receiving questions such as this, notwithstanding the fact that we have repeatedly made the general assertion that such remedies as these have no particular difference, except in the name of the proprietor and the pocket into which the purchaser's money goes. They all have this in common, which is the secret of their financial success, that they relieve present distress. A glass of whisky or a toddy will do the same thing; doubtless a dose of morphin will do it still more effectively. If the end to be accomplished is to relieve present distress, there are many means by which one can do it, but this covering up of symptoms is a very deceptive and a very unfortunate way of dealing with disorders of the body, and the one who begins this practise

eventually pays for it all with compound interest.

**Constipation Remedies.**—"Do you recommend — or — for relief of constipation?"

I certainly do not. Being frequently asked whether I recommend this or that remedy for constipation, I should like to reply once for all: Such remedies as have been on the market long enough to have obtained any considerable sale, have been shown to be practically valueless except as temporary expedients. One who is suffering from constipation should not temporize with any of these expedients, but attempt to find out what the cause of the trouble is, and remedy it, if he expects to live a long and useful life.

**Bed-Wetting.**—"We have recently taken a girl of eleven years afflicted with the bed-wetting habit. Her suppers are very light, dry flakes or bread, no liquid. She sleeps with head low, frequently no pillow. We do not know what further to do, and any suggestions you may offer will be highly appreciated."

This trouble may be due to some local cause, such as acid urine, threadworms, constipation, inflammation of the privates, adenoids, or even stone in the bladder. But more usually it is a nervous trouble, made worse, in some cases, perhaps, by self-abuse, though this is not always the case.

Try the following expedients: Allow no drink of any kind, water or milk, after three or four in the afternoon. Let the supper be early and quite dry — rice, bread and butter, a little simple fruit, but no animal food.

Have the bedclothing light, and see that the girl sleeps on her side — not on her back. A knot can be tied in a long piece of cheese-cloth and so adjusted as to come between her shoulders, to keep her off her back. Take her up or have her get up once in the night, perhaps a little after ten, to make water.

If this does not remedy the trouble, you would better consult a near-by physician, and ascertain if there is any local trouble causing the bed-wetting which can be remedied.



Sixteenth century bas-relief, Rouen, France. Now in Museum of Comparative Sculpture, Paris.



# SOME BOOKS

**The Kallikak Family, a Study in the Heredity of Feeble-Mindedness,** by Henry Herbert Goddard, Ph. D. Cloth, \$1.50 net. The Macmillan Company, New York.

This remarkable book, the result of the research department of the Vineland Training-school for Backward and Feeble-Minded Children, has set before the public a problem more grave than any problem of labor troubles, or even of religious persecution; for it opens up a chapter showing the powerful influence heredity has in making or unmaking the human race.

The Kallikak family presents a natural experiment in heredity. A young man of good family becomes through two different women the ancestor of two lines of descendants,—the one characterized by thoroughly good, respectable, normal citizenship, with almost no exceptions; the other being equally characterized by mental defect in every generation.

We find on the good side of the family prominent persons in all walks of life, and nearly all of the four hundred ninety-six descendants owners of land or proprietors. On the bad side we find paupers, criminals, prostitutes, drunkards, and examples of all forms of social pest with which modern society is burdened.

When it is realized that there are strains of people with brains of a ten-year-old child, with the breeding capacity of rabbits and with little or no conscience regarding sex matters; and when it is realized that these persons almost invariably breed their own kind, and thus perpetuate and increase the burden of a large pauper and dependent and criminal population, it will be appreciated that we have here a most grave sociological problem.

The history of the Kallikak family carefully worked out by the field workers of the Vineland institution, will be a revelation to many, and especially to those who think that environment is the only or chief determining factor, and that any child will do well if only well trained.

The last chapter, "What Is to Be Done?" lays the problem frankly before the readers. "No one interested in the progress of civilization can contemplate the facts presented in the previous chapters without having the question arise, Why isn't something done about this? It will be more to the point if we put

the question, Why do *we* not *do* something about it? We are thus face to face with the problem in a practical way, and we ask ourselves the next question, What *can* we do?"

It is not the idiot nor the lunatic that raises the most serious problem, but the high-grade feeble-minded person, who, according to our present regulation, can (married or unmarried) raise a large family of similar defectives, unable to make a living for themselves honestly, filling our almshouses, our houses of prostitution, our jails, and our reformatories.

**The Conflict Between Capital and Labor,** by Edgar Torrey Russell. Price, 75 cents. Review and Herald Publishing Association. Washington, D. C.

Many books have been written on the subject of capital and labor, containing many excellent thoughts upon this important theme. Most of such works, however, unfortunately present but one side of the question.

The author of this work does not belong to any organization or association formed in the interest of either class. He has, therefore, written from an unbiased standpoint, and for the purpose of pointing out not only the evils involved in this tense struggle, but a remedy for these evils.

**The Continuity of Bergson's Thought,** by Melancthon F. Libby, Ph. D. Price, 50 cents. University of Colorado, Boulder.

It was Professor James's reference to Bergson as "the master" which gave him vogue in America; and the wide reading of the "Creative Evolution," published in 1907, and published in the English translation by Mitchell in 1911, has probably made his name the most widely talked of among recent philosophers.

Most of the criticisms (in learned and popular periodicals) of Bergson's philosophy are based upon a misreading of his "Creative Evolution;" but this work can not be understood nor answered without a thorough comprehension of his use of such words as "duration," "will," "memory," "matter," "space;" and when the chaotic discussion of his system has cleared, we shall learn whether his "durationism" can be really subverted.

It is the present author's aim to make clear Bergson's use of terms, and to show the continuity of his thought through his various works, culminating in "Creative Evolution."







# NEWS NOTES

**Pellagra in Great Britain.**—Recent investigations by Dr. Sambon, the great English pellagra expert, show that pellagra is present in a number of counties in England, in the Thames Valley, and in the Shetland Islands. It would seem as if pellagra were almost a world disease.

**Common Towel Forbidden in Interstate Traffic.**—An amended regulation by the United States Treasury Department (the department in which the Public Health Service at present functionates) forbids the use of common towels on all interstate railways, vessels, and other vehicles; and in all stations.

**The Old White Phosphorus Match Doomed.**—Because of the federal law which goes into effect July 1, we shall soon be using the style of match usually known as a safety-match, which must be struck on a specially prepared surface. This new law means much for the prevention of phosphorus-disease in the manufacture of matches, and for the prevention of fires.

**Cholera Epidemic at Mecca.**—An alarming epidemic of cholera has broken out in Mecca, where thousands of Mohammedan pilgrims are congregated. These fanatics have no conception of sanitation or hygiene, and consider that an epidemic of this kind comes because it is the will of Allah, and do nothing to prevent its spread. Doubtless the disease will be carried along the track of their return journey into many countries.

**Polluted Drinking-Water on Trains.**—Because of recent inspection of the water on trains in Kansas, used when it is often polluted by means of the ice with which it is cooled, the board of health has ordered that after July 1, no railroad company nor employee of such company shall permit ice to come in contact with the water to be served for drinking purposes on trains or in stations. Further, the drinking-vessels must be thoroughly cleansed at all terminal stations and whenever the cars are cleaned.

**Commercial Pasteurization a Delusion.**—As a result of the study of two epidemics of a very serious and troublous septic sore throat, both of these epidemics being accompanied by numbers of fatalities, it has been concluded that the so-called commercial Pasteurization is worse than useless, from the fact that it gives confidence in the milk, while it affords no real protection against the transmission of pathogenic bacteria. It has been recommended that no milk be permitted to be sold as Pasteurized milk that has not been Pasteurized under official supervision.

**Drops an Antiquated Custom.**—From the dark ages we have inherited the custom of writing diplomas in Latin. The University of Marburg has broken away from this relic of the past by writing its doctors' diplomas in the German language. Why not? We are past the time when the only learned language in Europe is Latin; we call it a dead language; why not give it a decent burial?

**Bovine and Human Tuberculosis.**—At a conference of the (British) National Association for the Prevention of Consumption, Dr. Sheridan Delépine read a paper in which as a final statement he said, significantly: "Taking all these things into consideration, I think it is possible to say without fear of exaggeration that not less than twenty-five per cent of the tuberculous children under five years of age suffer from infection of bovine origin, and that this estimation is much lower than one based on probabilities would be."

**Home Work in the Tenements.**—It was shown at the hearing held on Dec. 5, 1912, by the New York State Factory Investigating Commission in New York City, that the home work of women and children of all ages endangers not only the health of the workers themselves, by making them ready victims of tuberculosis and other diseases, but also the health of the prosperous public in the most remote localities to which the products of the tenements are sent. Witness after witness told of tuberculous patients working on food and clothing; of garments, feathers, doll clothes, and other things found in process of manufacture in the same room with the most infectious and dangerous diseases.

**Certificate of Merit.**—The food and drug commissioner of Indiana is attempting to have the local health boards of the State adopt a system of granting certificates of excellence to deserving owners of food-handling establishments. This seems to be a meritorious procedure. But why not furnish score-cards on the percentage basis, the same as is done in the case of dairies? The fellows who have the low-score cards will find their trade leaving. Score-cards running over 90% might be printed on white paper, from 80% to 90% on light blue, from 70% to 80% on some other color, and so on down the list, so that the color of the score-card would readily indicate the approximate cleanliness of the proprietor. It might also be provided by the law that these score-cards must be hung in conspicuous places, and that they must be renewed by frequent inspection. If a future inspection lowered the score, the inspector would of course destroy the old card and replace it by a new one.



**Bonus for Babies.**—The federal government of Australia has offered a bonus of twenty-five dollars to parents for every baby born and registered in the commonwealth, except in cases where the mother is a colored native.

**Longevity of Farmers.**—A report of the registrar-general for England and Wales shows that the death-rate of the agricultural class in those countries is very low as compared with the average even of those living under healthful conditions.

**Soy-Bean and Condensed Milk.**—In the *Medical Review of Reviews* for August, 1912, a combination of the soy-bean, or its flour, with sweetened condensed milk, is recommended as an infant food where fresh milk is not safe. Because of the absence of starch the soy-bean is also recommended in the treatment of diabetes.

**Oats in Human Nutrition.**—Two French authors have recently called attention to certain advantages which they consider that oats possess as food for man, and to experiments by a French army officer which would seem to indicate that the addition of oats in some form or other to the ration increases the endurance of soldiers.

**Something About Alcohol.**—The medical director of the National Casualty Company, Dr. Pilcher, read a very interesting educational paper before the Claim Association of Casualty Companies. The doctor considered that alcohol was the chief predisposing cause of pneumonia, although he gave proper regard to climate and temperature. Proprietary medicines and foods have alcohol as a basis, and weaken the system and prepare the soil for the pneumonia germ.—*The Examiners' Bulletin*.

**A Vacuum Cleaner for Streets.**—There was recently exhibited in England a vacuum cleaner for streets, said already to be in successful operation in Milan, Rome, and Hamburg. It is run by a four-cylinder thirty-horsepower gasoline motor. By means of a four-inch cylindrical brush and appropriate suction apparatus it cleans a width of six feet, the refuse being collected and compressed in a tender which follows the machine, and which has a capacity of forty cubic feet. The machine is said to be capable of cleaning 180,000 square feet, or about four acres, an hour.

**Information Regarding Diabetes Wanted.**—William E. Fitch is undertaking an exhaustive research into the pathology, etiology, and dieto-therapy of diabetes mellitus. He is anxious to hear from every physician in the United States who has a case under treatment, or who has had any experience in the treatment of this malady. Von Noorden says: "The best treatment for the diabetic is the food containing the greatest amount of starch which the patient can bear without harm." If any physician reading this has a similar or a contrary experience, he is requested to address William E. Fitch, M. D., 355 West 145th St., New York, N. Y.

**Pellagra in the South.**—The pellagra commission of the New York Postgraduate School, after four and one-half months' study of the disease in South Carolina, have returned, and their report will appear later. There are, it would seem from their observations, about fifty thousand pellagrins in the South; and the disease, while it is becoming less severe, is not by any means becoming less frequent. At first, it was confined largely to the poorer classes, but now it involves also the well-to-do. This disease is more common, according to the commission, than has been supposed; for in a county where the local physician reported 162 cases, they found between 300 and 400 cases.

**Trachoma Remedy.**—In the December, 1912, *Kuracisto*, the International Medical Monthly Review (Esperanto), Dr. I. Shabunin, of Saloniki, Turkey, reports that during a period of two and one-half years he has cured more than 1,000 cases of trachoma, by the use of five to ten drops of a two to five per cent cocaine solution, dropped into the eyes once daily. He used absolutely no other means of treatment, such as squeezing out of the kernels. Of thirty-two cases observed for a year after cure, not one relapsed. For complications, such as palpebral eczema, blepharitis, blennorrhoea, he of course used proper remedies,—borated and zinc ointments, zinc drops, yellow oxid ointment, etc. He does not state whether in any case a cocaine habit was formed.

**Swelled Canned Goods.**—Under the supervision of the Kansas State Board of Health, Professor Jackson has been making some investigations which seem to warrant the statement that swelled cans of either fruit or vegetables, not only indicate the presence of fermentation and decomposition of their contents, but almost uniformly indicate the presence of an excessive amount of tin in the contents of the can. The intelligent housekeeper will always avoid canned goods which are swelled, or which have two solder marks in the heads, the second solder mark indicating that the cans have swelled, and that they have been punched in order to permit the escape of gases of decomposition, and have been reheated and resoldered. Canned goods containing two solder marks are unfit for food.

**Child Labor Legislation.**—During the last year in the fourteen States that held legislative sessions, child labor legislation or legislation of a similar sort was under consideration. Thus, Maryland, Arizona, and Minnesota have now modeled their child labor laws on the Uniform Child Labor Law, drafted by the National Child Labor Committee and unanimously indorsed and urged for adoption in all States by the American Bar Association at its last annual meeting. Mississippi also adopted the main provisions of the Uniform Law, with the one serious defect that the age limit for employment of boys is fixed at twelve years instead of fourteen. Mississippi is the only State having cotton manufacture as its chief industry in which children under sixteen years of age may not be employed more than eight hours a day.



**Increase of Suicide.**—Suicide is rapidly increasing, and it is said to amount now to about 15,000 a year; that is one every thirty-five minutes, day and night.

**Mental Disturbances Increasing.**—Insanity and idiocy are on the increase. The diseases of vice are spreading rapidly. There is a possible connection between the two.

**Decay of Eggs.**—Kossowicz has learned that eggs may be contaminated by microorganisms within the oviduct, but not after they are laid, until they lose resistance through age.

**Bulgarius Bread.**—In baking bread, a substitution of part of the water by milk containing the Bulgarian bacillus, is said to give a pleasant flavor, especially in the case of rye bread.

**To Banish Nicotin From Senate.**—Senator Tillman wants the fumes of tobacco abolished from the Senate chamber entirely. He has introduced a bill prohibiting all smoking about the Senate chamber, cloak-rooms, etc., which was referred to the committee on better ventilation of the Senate chamber.

**Effects of Fruit-Juice on Metabolism.**—T. Laurenti, as reported in the *Journal American Medical Association*, found as a result of the use of fruit-juice in nearly every experiment and during the supplemental period, an increase of the total nitrogen, and a considerable increase of the uric acid output. This effect did not seem to be proportional to the acidity of the juices.

**Tropical Sunlight.**—A recent contribution by Prof. Paul C. Freer, director of the Bureau of Science of the government of Philippine Islands, seems to show conclusively that it is not the excessive light, but the excessive heat in tropical sunlight that causes injury. Monkeys exposed to heat without shelter readily succumbed if they were not kept cool, but if they were kept cool by means of fans they lived, although they were not protected from the sunlight.

**Alcoholism and Tuberculosis.**—The chief of the Bureau of Municipal Statistics in Paris, Dr. Jacques Bertillon, gave in a recent paper his opinion that alcoholism may be called the principal cause of tuberculosis, basing his conclusions on statistics from England and France. The *New York Medical Record*, commenting on the work of Bertillon, says: "Within the memory of most of us, alcohol was considered the natural enemy of tuberculosis. A barrel of whisky, a barrel of cod-liver oil, and a life in the open plain was the old-fashioned cure for consumption; but the evidence accumulates that the defenders of alcohol were mistaken in their views." Then after giving a brief account of the work of Bertillon, the *Record* continues: "While the arguments in the particular instance seem to be a little far-fetched, the general principle is fairly universally now admitted that tuberculosis, in common with all other diseases, develops most rapidly in those whose constitutions are weakened by excessive indulgence in alcoholic beverages."

**Soy-Beans.**—H. Neumann, in a paper favoring the use of soy-beans, said that he found the use of these beans to increase the milk in nursing women.

**Tomatoes and Cholera.**—An Italian investigator asserts that on account of the acid content, tomatoes act as an intestinal disinfectant. The tomato contains .87 per cent of citric acid, with traces of tartaric, malic, and oxalic acids.

**Cerebrospinal Meningitis Epidemic.**—In certain parts of Arkansas, Tennessee, and southern Illinois cerebrospinal meningitis has become epidemic. Considerable agitation has arisen in connection with the appearance of the disease, and some communities have established quarantine against other communities.

**Vegetables and Typhoid.**—The *Medical Press* reports experiments in which typhoid bacilli were found on lettuce grown in soil that had been inoculated with typhoid bacilli thirty-one days before gathering the plants. Three consecutive washings in distilled water did not entirely remove the germs. This suggests the danger of eating uncooked vegetables unless one knows the nature of the fertilizer used.

**Education for Parenthood.**—In the *February Bulletin of the American Academy of Medicine* is an article by Dr. Helen C. Putnam on "Education for Parenthood"—a most important topic. Dr. Putnam has for years been working toward the installation of courses in schools of higher learning where young people might be prepared to train future parents so as to insure a higher level of attainment for the children, through the intelligent efforts of the parents. Teachers with such training and ideals can so train the children that when they come to the age of maturity, they will not enter the most important relationship of life without due preparation.

**Finger-Bowls Unhygienic.**—A recent *Public Health Bulletin* (No. 57) considers the common drinking-cups and roller-towels, and now Surgeon Lavinder, of the Public Health Service, in the *Public Health Reports* of January 3 gives warning against the use of the common finger-bowls in restaurants. He says: "It seems to be customary even in high-class restaurants to have in use about half a dozen finger-bowls, more or less, and these do service for many patrons. The water in them seems to be changed at rare intervals and entirely in the discretion of the waiter. Occasionally one will see the old water poured out and fresh poured in, but far more frequently even this is not done. I presume the bowls must be taken out and washed occasionally. Now, when one considers that many persons in using these bowls wash not only their fingers but their lips as well, it would seem that the conditions of the common drinking-cup are different only in degree. Moreover, with the finger-bowl it is not only the question of using a common bowl, but often common water also."



**The Death-Rate of Old Persons.**—The death-rate of persons forty years of age and over has, since 1880, increased about twenty-seven per cent, while in England and Wales it has remained practically stationary. Evidently our old people are not given to living the simple life.

**No Smoking Allowed.**—This is an invincible rule in the home office of the Amicable Life Insurance Company. Men who indulge in pipes and cigars may smoke when not on duty. Men and boys who smoke cigarettes are not allowed to go on duty. They are simply not employed. Cigarette smokers who are willing to try quitting are given thirty days' probation; if they can separate themselves from the habit within the time limit, they stay on the pay-roll; otherwise they have to look elsewhere for positions.—*The Examiners' Bulletin*.

**The Elements of Rational Living.**—Dr. Lachlan has recently given to Scotch readers a course in rational living, in simple language. Commenting on this fact, the *Lancet* says: "Many members of the medical profession have preached this gospel assiduously in the last few years, but it has not yet obtained such acceptance as to render further evangelism unnecessary. Even if the tenets of the rational life were faithfully followed by educated people, which is far from being the case, there are the rising generations constantly in need of instruction, and the uneducated classes as well." So there is still work for such journals as LIFE AND HEALTH.

**Morphin Addiction Common.**—Dr. T. D. Crothers says that his experience, extending over a period of thirty-five years and confined entirely to spirit and drug neuroses, would seem to prove that over one third of all patients coming for treatment are morphinists, and curiously enough one fourth are physicians and professional men. And this experience seems to be confirmed by other observers in different parts of the country. There is no doubt, says Dr. Crothers, that morphin addiction is fast becoming a great national peril almost equal to that of alcohol, and in some respects more dangerous because it is concealed.

**Young Girls in Steel-Works.**—It was found in a recent investigation by the National Child Labor Committee that girls under sixteen are standing more than ten hours a day at work that is heavy for men, in the plant of the Oliver Steel Company, Pittsburgh. The Oliver Steel Company is owned and controlled by David B. Oliver, ex-president of the Pittsburgh Board of Education, who gave up the chair at a recent meeting of the board in order that he might go on record as opposing improved child labor legislation in Pennsylvania. The conditions of the work are so severe that the National Child Labor Committee says it is urgently necessary to prohibit the employment in foundries of all boys under sixteen years and of all girls under twenty-one.

**Cause of Beriberi.**—A French investigator, Gouzien, studying the records of a penitentiary in French China for the five years ending 1910, concludes that beriberi is related to the use of rice, and that unhulled rice prevents the disease not because of some anti-toxic substance in the hulls, but because the hulls protect the grain from degeneration through heat or moisture. He considers the disease an intoxication and not an infection, and shows that it is closely allied to scurvy. The two diseases seem to be in a sense interchangeable. Even when polished rice is used, there is a marked decrease in the epidemic if fresh vegetables, fruits, and meat are freely used. The disease is not altogether dietetic in its causation, for overcrowding and dampness of quarters have a marked favoring influence.

**Progress in Child Labor Legislation.**—Rhode Island and South Carolina have prohibited the employment as night messengers of boys under twenty-one and eighteen, respectively. The new law in New York requires a physical examination of all children seeking employment certificates. Massachusetts and Kentucky have provided for better enforcement of existing laws. Massachusetts has also established a board to determine the minimum wage of women and minors in certain industries, and a commission to investigate and recommend upon the advisability of a State pension to dependent widowed mothers of young children. Progress is noted in all but three of the fourteen States holding legislative sessions. Bills were defeated only in Georgia and New Mexico. Louisiana stands alone in moving backward. There the hard-fought Clinton Bill was passed, exempting children employed on the stage from the operation of the child labor law.

**Granulated Lids in Kentucky.**—In the mountain regions of Kentucky, trachoma, a very contagious and dangerous form of granular lids, has been found to be very prevalent. Of four thousand persons examined, one out of every eight had the disease. It is thought by the members of the Public Health Service who have been investigating the matter that this condition must have prevailed for many years among the native population, and that it is quite likely that similar conditions prevail in the mountain districts of Tennessee, West Virginia, Virginia, and possibly North Carolina. This is the disease we have attempted to restrict by returning immigrants who have it, but evidently we have on our hands the larger job of eliminating the disease which has already obtained a firm foothold in our midst. And it is not so easy to eradicate as hookworm disease. As the *Public Health Reports* says, "Wherever present to any great extent the disease is a public health problem of no small importance, and its eradication, which is necessary for the welfare of the community, will require patient and systematic work on the part of the health authorities, and the cooperation of the people."



**Cost of Living and Food Pastes.**—Certain European investigators have recommended such food pastes as macaroni as a means of reducing the cost of living. The writers note that while the better grades of macaroni contain a relatively high proportion of ash, fat, and cellulose, they contain a smaller proportion of nitrogenous matter than the cheaper grades.

**He Who Lives in a Glass House.**—We view with horror the 300,000 cases of cholera that have occurred in Russia during the five years ending 1911, including the heavy epidemic of 1910, while we forget the fact that more than four times as many, that is, a million and a quarter, died in the United States during the same time of typhoid fever, which means they died from the use of food and drink contaminated with human excrement. In consideration of this, are the Russians so terribly bad?

**The Banana Sterile.**—Dr. E. M. Bailey, as a result of extensive bacterial investigation, asserts that the edible part of a matured banana is practically sterile. The peel is very resistant to bacterial growth. This was found to be the case even when bananas were immersed in fluids containing bacterial cultures of known organisms. This it can be admitted is a pretty severe test. One reason why this fruit is not more popular is because many eat it in an immature condition, when it consists largely of starch instead of sugar. It is then less palatable and probably less digestible.

**Dr. Gulick Changes Activities.**—In order to give his entire time to the work of the Camp-Fire Girls, Dr. Luther H. Gulick has resigned his position as director of child hygiene in the Russell Sage Foundation.

**A Health Governor.**—Governor Sulzer, of New York, has determined to make his State the most healthful in the Union, so it is said. Because of the large number of preventable deaths from contagious diseases, etc., he has appointed a commission to make an investigation of the situation, composed of prominent public health and social workers.

**Oleo Masquerades as Butter.**—Recently an illicit oleomargarine plant was raided in New York State and one thousand pounds of white oleomargarine and seven hundred pounds of colored oleomargarine were seized. The owner confessed that he had manufactured oleo during the past six months and had sold it in Albany and Schenectady as dairy butter.

**Cocain Habit Growing in Paris.**—A recent report from Paris indicates that there is a startling increase in the cocain habit among all classes in that city, where the drug is sold illicitly in cafés. It is said that some wealthy victims pay as much as two dollars a grain for the drug because dealers threaten otherwise to expose them and cut off their supplies. One would think they would get even by exposing the dealers. It is said that the police are doing what they can to suppress the traffic.

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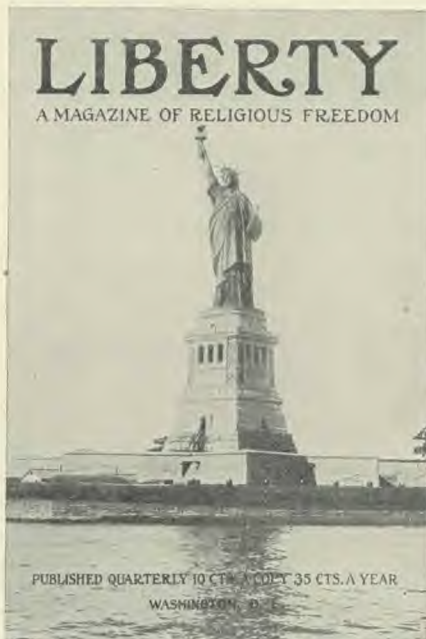
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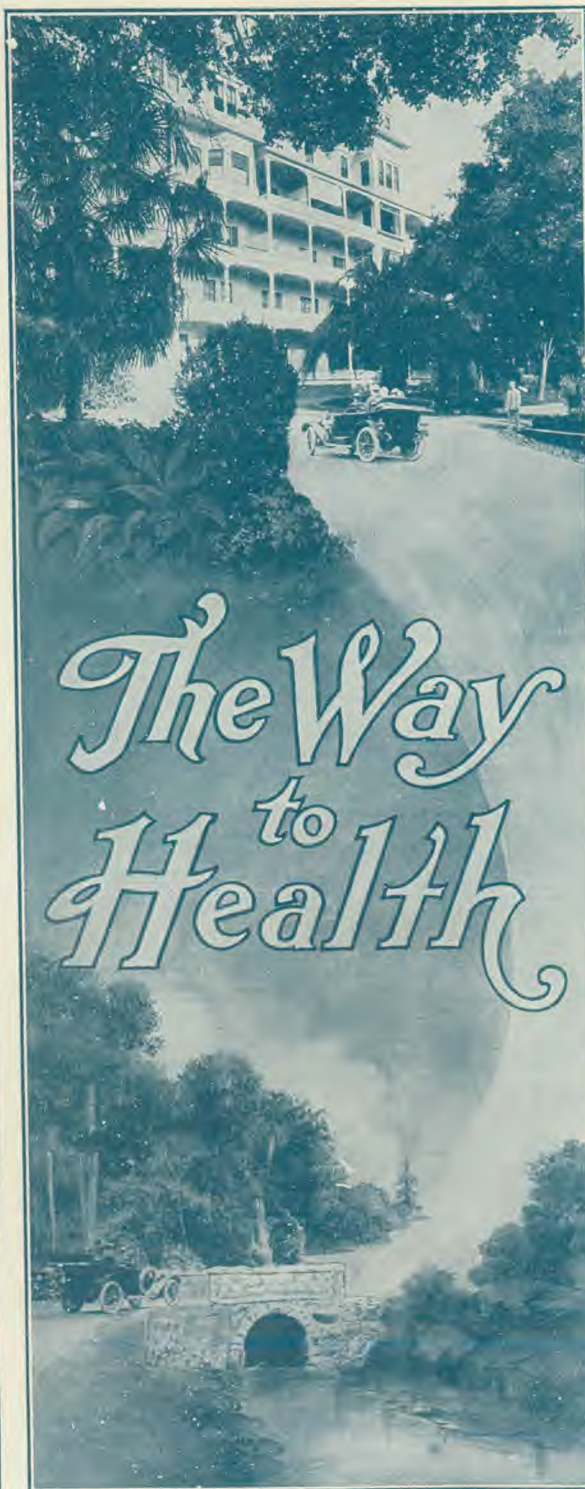
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