

# Herald of Health

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# HERALD OF HEALTH

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V. L. Mann, M. D., Editor

S. A. Wellman, Asso. Editor.

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No. 9

## Pit Falls of the Youth

UNTIL the last decade and for many generations previous humanity had been deteriorating, that is, the length of life of mankind has been steadily on the wane. The downward trend has been checked somewhat during the last decade by the close search made into the cause of deterioration. The low average in the vast majority of circumstances is due to those things for which man himself is responsible. For this reason there is a wide field of endeavour before those who are interested in the betterment of mankind, that their influence should be used in enlightening the masses regarding the things they are doing either through ignorance or carelessness, that tend to shorten life.

If nature had decreed that only the indulger should receive punishment for his indulgences, and his life be shortened thereby, we might make more allowance for the individual who chooses to spend the best of his life's strength in folly. But when we consider that mankind in general is affected, it is selfishness on the part of the man to thus waste his substance. If one were content with imposing but one outrage upon the system, the constitution could make a better fight, and thus hold up under the imposition placed upon it, but the indulgence in tea, coffee, tobacco, drunkenness, surfeiting, and licentiousness, comes as an overwhelming burden upon the system, crippling it in most cases when it should be in perfect order.

Begin where you will in the life of the individual and you will find opportunities for the work of enlightenment, but there is no better place to begin than with the youth. Although he may have to encounter some inconveniences which have been bequeathed by his forefathers, still to a large extent his life before him is what he makes of it. Some of the natural evil tendencies can be replaced by good ones; the weak points by strong points. By proper training and self control we can hope to raise the life of mankind to a higher standard. Victories gained over passions in this generation will reveal fewer evils to be conquered in the succeeding one. In this way a few generations hence man may be able to retrace many of the steps lost.

The period of youth is critical in the life of the individual. It is a time when the pent up activities of the early life will burst forth into useful channels or the opposite. This is the time of life when the tobacco habit is usually formed, or the first steps taken toward drunkenness. It is a time of life when a change in disposition, a sudden decline in health, unnatural languor or lassitude, extreme nervousness or symptoms of exhaustion, should make the parent suspicious that habits are being formed that are undermining the constitution; and their observance should cause an early visit for needed advice to the family physician, one in whom trust and



confidence can be placed. Bad habits formed at this period spell ruin to the health in later life.

Habits thus formed lead to a desire for city life with its false attractions. The public house, and dens of vice, infamy, and licentiousness ease the conscience with their allurements, but the cup from which the drink is taken will sooner or later be filled with gall and wormwood.

Some say, "He is only sowing a few 'wild oats.'" Wild oats are easily sown, but they make a poor harvest and one hard in the reaping. The world is full of the results of Wild Oat sowing. We see their effects all about us. Insanity, paralysis, locomotor ataxia, and nerve instability, point back to this sowing.

We visit a hospital and enter the children's ward. Our attention is first attracted to the infant who is totally blind. This is caused by some one's "wild oats." A bed or two beyond this is a child who has a tremendous sized head in proportion to its body. It has water upon the brain, various muscles of the body are paralyzed, and its mentality is practically nil. Again the evidence of someone's "wild oats." Still farther in the ward is a child which has choreic movements, another that has epileptic fits, and still another that has been suddenly paralyzed and lies motionless. All the results of someone's thoughtlessly sown "wild oats." What a harvest! Our hospitals, asylums, and jails are filled with the harvest of such a sowing.

When a man comes to the age where he is to select a helpmeet, he should be able to give in his own character what he demands in his wife. It is absurd and unfair to allow a man to spend the best of his life in profligacy and be again reinstated into society; while a woman under similar circumstances is branded for the rest of her life. There is opportunity for the improvement of the status of woman-kind; but in mankind the opportunity is

still greater. Both sexes should demand in each other that purity of heart, mind and body that is necessary for a life of peace, joy and happiness.

A fast life is diametrically opposed to progress. This is illustrated not only in individual lives but in national life as well. The universal empires, Babylon, Medo-Persia, Greece and Rome, so long as they maintained a high standard of social purity, and eschewed surfeiting and drunkenness, were a power that swept everything before them. As soon as they lowered their standard in these things they began to crumble and decay. Many is the life that has been wrecked and ruined, and many is the brilliant career that has been shortened by the sowing of a few "wild oats."

The pitfalls for the youth and for the young man are many. How are they to be avoided? One of the great writers of the Bible has said that he would rather be classed with the people of God than to enjoy the pleasures of sin for a season. The young man starting out in life should know that the pleasure of sin is only temporary; that sooner or later it brings decay and leaves its victims stranded. The bitter cup cannot be avoided and the contents will have to be drunk, even to the dregs.

A pure life can be maintained only by a strong determination to do right on the part of the individual. Only thoughts that are pure and uplifting should be allowed to enter the mind. If the mind and heart are kept pure, the actions will be likewise. He that trusts in the Originator of all that is Pure to keep the mind, heart, and body clean, has taken a great step in the solution of the problem of a clean life.

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LAY hold on life with both hands. Wherever thou mayest seize it, it is interesting.—*Goethe*.





# General Articles



## Vegetarianism

J. L. BUTTNER, M. D.

VEGETARIANISM 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 defence 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 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 endeavour 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 appreciated by vegetarians is the importance of flavour 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 worshippers 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 travelling 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.

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.

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 fibres 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.

## Is the Stomach to Blame?

G. H. HEALD.

THE 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 vigour, 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, 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 unfavourable, 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.

## Appendicitis

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

AT the beginning of the large bowel, and just below its connection with the small bowel, is a small slender body about three inches in length which, on account of its resemblance to a worm, is called the *vermiform appendix*. Appendicitis is inflammation of this appendix. There are several varieties: first, catarrhal, which is perhaps often a very mild form of inflammation, but may be also very severe at times; second, ulcerative, when ulcers occur; and third, where there is a marked breaking down of tissue and not infrequently gangrene.

### The Causes of Appendicitis

For reasons that are not very well understood males suffer more frequently with appendicitis than females, and, although it may occur any time in life, the favourable age in either case is from fifteen to thirty years. Catarrh of the bowel is generally regarded as one of the important predisposing causes; and undoubtedly constipation, which so frequently accompanies catarrh, is an important contributing factor. Exposure which might lead to chill of the bowels, and injuries of various kinds must also be regarded as casual factors in the production of appendicitis.

But perhaps the most important causes have to do with certain errors regarding both diet and drink, which are exceedingly common in the land. There can be but little doubt that appendicitis is a germ infection of some sort, and pus microbes that is, germs which produce pus or

matter, are probably the exciting cause in most attacks. Even under favourable circumstances a certain amount of fermentation, decay, or putrefaction, takes place in the contents of the bowels, and gives rise to the formation of foul gases and poisonous matter. Such putrefaction is more pronounced and also of a more dangerous type when it is associated with certain articles of diet, and particularly those which come from the animal kingdom. Persons who wish to control this decomposition process, should as far as possible avoid flesh foods and partake largely of fruits, the mild acids of which discourage the activities of the germs and the consequent putrefaction of the food. It is a notable fact that those who follow a plain but wholesome and nourishing fruitarian diet have far less offensive bowel discharges than meat eaters.

While it would not be correct to say that vegetarians are immune from appendicitis, still we have good reason to believe that they are far less liable to an attack than the average flesh eater.

### Symptoms

Although the symptoms of appendicitis sometimes resemble those of typhoid fever or even gall-stone or renal colic, still, as a rule, they are characteristic, and not easily confused with other disorders. The attack is sudden, and there is a pain which seems to come from that part of the abdomen which lies about midway between the navel and the uppermost point of the right pelvic bone. This same



area is also tender and sore, and often rigid as well. There is a mild fever with a temperature of from 100° to 103° F. A swelling may be noticeable at the seat of the pain and tenderness, or it may be developed later. When the pain is great the patient lies with the right knee drawn up. There is also a loss of appetite with a feeling of nausea, or sickness, oftentimes vomiting, and the bowels are usually constipated.

#### The Treatment

At the first sign of appendicitis the wisest course is to send at once for the family physician and submit the case for his examination. Appendicitis, which has an average death rate of about fourteen or fifteen per cent, is not a disease to be trifled with, and the sooner it is handled in a skilful fashion the better the chances are for recovery. Of course the patient should be promptly put to bed and absolute rest enjoined. Enemata for the purpose of clearing the bowels are in order, and should be repeated as often as necessary. It is safe to apply hot fomentations or hot packs to relieve the pain. Cold compresses and cold packs are also useful for the same purpose, and may alternate with the fomentations. All hot applications are in order. It is a wise plan to give the patient plenty of water to drink, and especially hot water.

The diet will necessarily be of a fluid nature. Pure milk, which should be sterilised if necessary, and thin milk drinks and gruels, barley water, rice water, albumen water, and similar preparations, are all in order. We would also recommend fruit juices and unfermented grape wines. The latter are exceedingly wholesome and nourishing, and rarely fail to benefit patients. Fruit juices possess additional advantage in that they exert a mild laxative influence, and thus assist materially in regulating the bowels. Milk and milk preparations, on the other hand, are constipating as a rule. Metchnikoff

soured milk, however, is an exception, and is believed to be a mild laxative like the fruit juices. When properly prepared in a scientific way, it must be regarded as a wholesome food for patients suffering from appendicitis.

#### Surgical Interference

It is impossible to lay down any fixed rule with regard to calling in the surgeon and submitting to an operation. Each case must be decided upon its own merits. If the attack is very sharp it is usually wisest to submit to an operation at once. This is emphatically true when the treatment carried out does not promptly bring relief to the patient and give evidence of improvement. In mild cases, however, it is rarely necessary to resort to the knife, but should the patient suffer from repeated attacks at varying intervals, it sometimes becomes desirable to have an operation so as to put an end to these attacks. Naturally the most favourable time to operate is between attacks, when the patient is in good condition, and the inflammation in the region of the appendix has subsided. Under these conditions the danger from the operation is very slight indeed, and the vast majority make a prompt and successful recovery, and are no longer subject to appendicitis.

#### Preventive Measures

It is rather difficult to give explicit directions with regard to the prevention of appendicitis, seeing that we know so little about the direct exciting causes. As we have already intimated, the diet appears to be a most important matter. If people would learn to chew their food well, avoid taking too large a variety at the same meal, and also avoid the more complicated dishes, as well as all preserved meats, fish, and similar preparations, we believe there would be far less appendicitis. Shellfish of various kinds are scarcely fit for human consumption, and not infrequently bring trouble of one kind or another. Potted meats, veal, and pork



pies, and similar concoctions, as well as tinned fish, usually contain some form of preservative. There are authorities who believe that these preservatives have a distinct tendency to provoke appendicitis, but even though this be not the case, they are unwholesome, and should be avoided.

The sharp chippings from cheap, enamelled kitchen ware are believed to cause mischief, and should be carefully avoided. We welcome the new aluminum utensils which appear to be superior to enamelled ware, and we hope the prices will soon be reduced sufficiently to put them within the reach of every home.

The old-fashioned idea that grape seeds and similar articles cause appendicitis has been exploded. We believe there are but

very few cases which have been proved definitely to have been caused in such a way.

Another rather important consideration is the condition of the bowels. Those who are subject to constipation would do well to give careful attention to diet for the purpose of regulating the bowels and securing a daily movement. The gathering of waste matter in the bowels is of itself a very harmful thing, for some of these wastes, which are more or less poisonous, get absorbed into the system, and thus cause a certain amount of auto-intoxication, or self-poisoning. We believe that a great deal can be done in the way of preventing appendicitis by keeping the bowels in an active, healthy state.

## Eugenics and War

AT the Congress of Eugenists recently held in London an interesting discussion took place on the effect of war on national physique. Many people erroneously believe that war has a most beneficial effect upon the national physique. This idea was strongly opposed by Professor Vernon Kellogg, of Leland Stanford Jr. University, who urged the necessity of peace for the development and maintenance of the best manhood. He declared that nothing could be more disastrous to the physical strength of a people than the direct selection of the most robust for work which carried them away from home, prevented their giving their vigour to children, and returned them, if at all, maimed, diseased, and exhausted. The prevalence of war, draining the country of its able-bodied men, brings with it an era of greatly lowered birth-rate and of the birth of weak and undersized children. This happened during the Napoleonic campaigns. When they were over, even though the survivors were decimated and wounded, France entered on a period in which an inch was added to the war time stature of its inhabitants.

It was claimed by certain German and English military officers that military service developed the recruits. A German general called the attention of the Congress to the physical strength and high spirits of the young soldiers he had seen marching through the streets of London.

In commenting upon this discussion *The World's Work* said: "There can be no doubt that military exercise and discipline are beneficial to those brought under them—so long as they do not go to war. But the same exercise and discipline directed in other channels—in preparation for duties not destructive but efficient for prosperity—these would give the same result, as a by-product, while their chief purpose would not be wasted. Every advantage claimed for military service could be gained by training for war, not against other nations, *but against the common foes of all* [italics ours.] On the sole ground of the maintenance of a people's physical vigour, war is greatly to be deplored. It inevitably kills many, injures more, and at the best withdraws a large proportion of the most vigorous from fatherhood during their best years, while it leaves the weakest to transmit their deficiencies to the following generation. —*Australian Life and Health.*



# The House We Live In

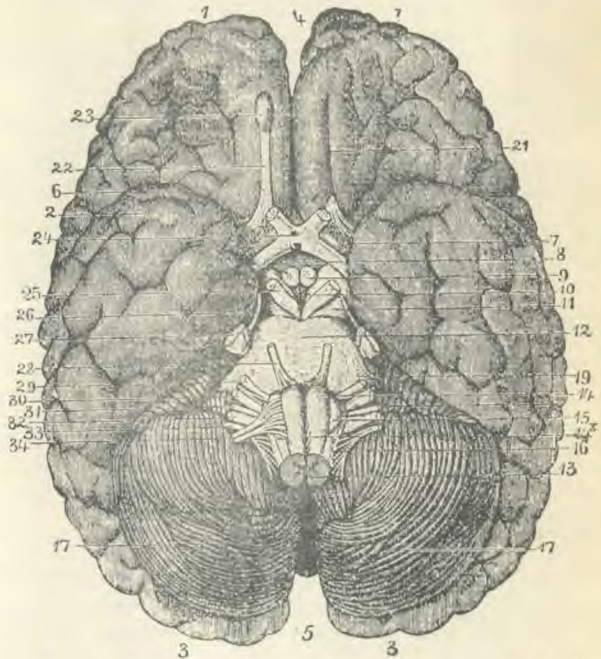
## Our Telegraph System

WE have considered the work of most of the organs of the body, but the question may have come to some of our readers, How do these various organs with such delicate mechanism continue doing their work, all acting at the same time and still not interfering with one another. As an illustration, our lungs inhale oxygen and this in turn is taken up by the blood and forced into the blood vessels by the heart, and thence carried to the various cells to keep up the repair of the body. These different processes are going on at the same time, are dependent each upon the other, and still there is no interference with each other's work.

The nervous system is the balancing factor in these processes of the body. This system is much like a telegraph system. In some portions of the world where railroading has reached very large proportions roads cross and recross each other, and thousands of trains run upon these roads with but few wrecks. This regular working of these railways is made possible by the use of the telegraph system which consists of stations and substations and connecting wires. If any part of this system goes wrong it is liable to cause a wreck.

Our nervous system bears the same relation to the body functions. It consists of central stations, sub-stations and connecting wires. The central stations

are the different parts of the brain as the cerebrum, cerebellum, medulla, and the spinal cord. The substations are located in various parts of the body near the organs which they have a part in regulating. The wires connecting these stations and sub-stations are the nerves and they are distributed throughout



Base of brain: 1, 2, 3 Cerebrum; 4, 5, longitudinal fissure; 13, junction of spinal cord and medulla, 17 cerebellum

the entire body. All messages, which we term sensations, going to and from the periphery, reach or return from the brain by way of the spinal cord.

The unit of the nervous system, the nerve cell, is the receiving and transmitting apparatus. It receives impulses and passes them on to or from the brain. The



nerve cells are constructed similarly to the other cells of the body. They contain a nucleus, nucleolus, cytophasm, a neurite, and dendrites. The two last are the nerve filaments along which impulses are sent. The dendrites conduct impulses to the cell, while the neurite conducts impulses away from the cell. An aggregation of nerve cells forms what is called a ganglion and make the gray matter of nervous tissue. A collection of nerve filaments or fibres forms the white substance of nerve tissue and makes the nerves.

The nerves vary in size from a microscopical affair to a cord as large as one's finger. They are for the purpose of conveying messages or impulses from one nerve centre to another. Every time we prick our finger an impulse is sent over the nerve to the brain, and every time we remove our finger from the prick an impulse is sent over the nerve from the brain to the finger. It is in this way that we speak of the prick hurting us, and we jerk our fingers away from danger. If we were to look at a nerve fibre under a microscope we would find it made up of different parts, all of which are given names by the physiologist or pathologist.

The brain is an aggregation of white and grey nerve tissues located within the the skull, which serves as a protection for it. In reality it is an expansion of the spinal cord. It consists of three parts, the cerebrum, the cerebellum, and the

medulla. The cerebrum is popularly known as the brain proper, and the cerebellum as the small brain.

The cerebrum is divided into two lateral hemispheres by a median cleft or fissure, and these are connected by a bridge of white fibres. The upper surface is marked by many undulations or convolutions and causes each hemisphere to be divided into three divisions. If the cerebrum should be cut through horizontally, two distinct colours will be seen. The outside for a short distance toward the interior is an ash grey while next to this is tissue of a white colour. Then deep down in the cerebrum are large aggregations of grey matter.

The outside of the brain is covered with three membranes, the dura mater, arachnoid, and the pia mater. The pia mater adheres to the brain substance very closely, and even dips down into the convolutions. The arachnoid comes next and over all the dura mater. These two outer layers fit more loosely. These three layers go downward into the spinal canal and bear the same relation to the spinal cord that they do to the brain. The detail of the structure of the brain would take us into very complex conditions and difficult names and for this reason are omitted. The uses of the brain are many and varied. The centre for sight, hearing, taste, smell, motion, speech, and intelligence is located in the cerebrum.







## Food in Relation to Health Beverages, Condiments and Spices

BY T. C. O'DONNELL

### Coffee.

THE active chemical constituent in coffee is caffeine, identical with the caffeine (or theine, as it is sometimes called) of tea, and of decided, stimulating qualities. It quickens mental processes, makes the mind wakeful, and lessens the sense of weariness. It deepens respiration, and increases the force and rapidity of the heartbeat.

Coffee can in no sense whatever be regarded as a food, and while in certain cases its laxative qualities are valuable, yet the dangers which attend the introduction into the system of a positive poison, and the risk which one runs of establishing a habit, should serve to deter one from resorting to it.

Of the various ways of preparing the beverage, the percolator method has a great advantage in point of flavour, while at the same time coffee made in this manner is likely to contain fewer objectionable chemical qualities than when made after the older method of boiling.

Reference may be made, in this connection, to cereal coffee substitutes. "A few of these preparations," says a Government Bulletin, "contain a little true coffee, but for the most part they appear to be made of parched grains of barley, wheat, etc., or of grain mixed with pea hulls, ground corncobs, or wheat middlings. It is said that barley or wheat, parched, with a little molasses, in an ordinary oven, makes something indistinguishable in flavour from some of the cereal coffees on the market.

If no coffee is used in the cereal preparations, the claim that they are not stimulating is probably true. As for the nutritive value, parching the cereals undoubtedly renders some of the carbohydrates soluble, and a part of this soluble matter passes into the decoction, but the nutritive value of the infusion is hardly worth considering in the dietary."

### Cocoa and Chocolate.

Cocoa and chocolate are made from cocoa bean, the seed of the *Theobroma coca*, a tree of tropical America. The bean is encased in a yellowish pod, from which it is removed and subjected to fermentation. They are then dried by exposure to air and light, which hardens them and gives them a reddish colour. The fermentation lessens the acidity and bitterness which characterize the bean in its unfermented state, and usually develops the flavour peculiar to the ground product.

The cocoa bean in its natural state contains from forty to fifty per cent fat, part of which is removed in the manufacture of cocoa and sold as "cocoa butter."

After the drying process the bean is next ground and sold as "cracked cocoa," or "cocoa nibs." From these nibs the various brands of cocoa and chocolate are made, their composition varying as more or less fat is removed, and according to the nature and quantity of ingredients which are added.

Chocolate is a preparation of cocoa, to which sugar, starch and flavouring materials have been added, usually contain-



ing sugar to the extent of fifty per cent or more.

As compared with tea and coffee, cocoa is decidedly nourishing. Its food value is due to the fat that it contains. The starch and protein are too inconsiderable in quantity to be of much account. The beverage usually is made with milk, sugar being added to it in varying amounts, these substances increasing its nutritive properties very much. Ten grams of cocoa, the amount usually used in making a cupful, yields forty calories. When made with milk and sugar, the beverage will yield four hundred calories. The stimulating effect of theobromin is different from that of caffeine, to which it is chemically related, in that it does not cause sleeplessness or muscular tremors. Under its influence the mind becomes less alert, but it relieves a feeling of muscular fatigue in much the same way. The excessive use of cocoa does not produce the nervous symptoms characteristic to the use of tea and coffee, though it is likely to cause indigestion because of the large amount of fat in it and sugar added to it. If in making the beverage not too much cocoa and sugar are used, it is digestible, somewhat nutritious, and mildly stimulating.

#### Alcohol.

No occasion would be given an article on food to include a mention of alcohol, except that a mistaken notion is abroad that alcohol has a positive food value.

Alcohol possesses no food value whatever. It at first stimulates a worn-out mind or body to renewed exertion, but creates no new energy; reserve power is drawn upon, and sooner or later the fund will be exhausted, and collapse will occur.

The various alcoholic drinks, notably beer, seem to possess nutritive qualities, inasmuch as an increase of fat often results from their use. This is explained however, by the fact that alcohol retards

the processes of metabolism; the cells are not so rapidly broken down by exertion, and part of the food which ordinarily would supply heat and energy is stored up in the system as reserve fat.

The reserve, however, is purchased at a fearful cost. It has been shown that alcohol is ruinous to digestion; it destroys nerve control; it makes its victim susceptible to kidney and liver disorders, arteriosclerosis, tuberculosis, diabetes and gout, and destroys that vital resistance which is the body's chief defence against disease.

#### Condiments and Spices.

Spices and condiments contain so little nutritive material that they can scarcely be said to rank as a foodstuff at all. Yet they are so extensively used with other articles of diet, that no consideration of the subject of dietetics is complete without some reference to their influence on the system.

Misapprehension exists in the popular mind as to the value of condiments. They are generally supposed to be beneficial in cases of indigestion by stimulating the appetite to redoubled activity. In lack of appetite, which is usually a symptom of indigestion of some kind, they are considered capable of stimulating a desire for food.

What condiments really do in such cases is to inflame the delicate mucous membrane of the stomach and to produce catarrh of the stomach, and if their use is persisted in, a diseased condition of the intestines is also likely to result. At first they cause more food to be eaten than the system demands, and finally destroy the appetite, producing chronic dyspepsia of the severest kind. As Abramowski, an eminent dietitian has said, "Pepper and mustard, vinegar and pickles, through their irritation, create a state of inflammation along the whole alimentary canal."

*(Concluded in October.)*



# : Mother and Child :

## Infant Feeding the Second Year

BY DOROTHY T. HARBAUGH, M. D.

WEANING the baby is looked upon by many mothers with much fear. One of the greatest reasons for this being, that most babies are given nothing but the breast till the ninth or tenth month, and at that time they resent the offer of the bottle or cup. Then the time of year which is best for weaning is also a question to be settled.

Weaning should always be done gradually, when possible, being better for both mother and child. If the child is accustomed to one or two feedings a day from the bottle beginning the third or fourth week of its life, weaning is much easier when it needs to be done. Also it gives the mother an opportunity to run out for a time each day, obtaining a little rest and relaxation from the care of the baby. These feedings must be of the proper sort,—as clean, fresh cow's milk properly modified.

The ninth or tenth month is usually a good time for weaning, everything else being favourable.

At the beginning of the 8th month, give baby three bottle feedings a day. The next week give four feedings a day by bottle, and so increase the number by one bottle each week till all the food is being taken in that way.

Sudden weaning may be necessary from the development in the mother of some serious acute illness. Or if there is acute inflammation of one breast, do not allow the child to nurse that one. In acute illness of very short duration the infant should be fed from the bottle during this time; but use the breast pump three or four times a day to maintain the flow of

milk and not allow it to dry up. Through many minor ills, the mothers frequently nurse their children without any seeming detriment to them.

Cases of sudden weaning are apt to develop indigestion possibly because of too strong food being given,—such as undiluted cow's milk. The food should, in the beginning, be very much weaker than in a child of the same age who may have been taking artificial food for a longer time. When accustomed to modified cow's milk, the strength of the food can be increased from time to time as needed. It takes much time and tact on the part of both physician and mother, or nurse. It is best not to coax, and never force the child to take food. Offer the food at regular intervals, and if refused, take it away at once. This is repeated every three or four hours. One may offer modified cow's milk, thickened gruels, bread and milk (milk diluted). Strong willed children have held out for twenty-four, thirty-six, and even forty-eight hours. At the end of this time they are usually so hungry that they will give in. They are not apt to develop any serious symptoms from withholding food under such circumstances.

A child nearing a year old, when weaned, better be taught to drink the milk from a cup or to be fed with a spoon. Weaning in hot weather better be avoided as a rule, but the harm is not so great as to nurse the child during the entire first year or into the second, as some mothers do.

There are few mothers whose vitality does not suffer, as well as harming the child, to prolong the nursing beyond the



ninth month. Some are obliged to wean their children as early as the fifth or sixth month. There are many mothers who think if they adhere to the physician's rules and formulas during the first year for their infant, there is no need for further counsel and advice, unless the child becomes violently ill. From this point we shall deal mostly with the child after he has passed the first year.

The majority of infants are given solid food too early and in too great quantities and improperly prepared. Most of the attacks of indigestion during the second year are due to gross errors in diet. For instance,—I was called one evening just at sundown to visit a family a few miles distant, they having 'phoned that their baby was very ill. This baby was fourteen months old. I found her suffering from pain in the stomach and having convulsions, fever, and a very rapid pulse. Upon inquiring what food had been given her that day, I was told that she had not been given anything unusual. All she had eaten for dinner was dried corn, bread and butter, and stewed dried apricots. Upon remonstrating with the parents about that kind of food for a child so young, they said, "She positively will not take milk, but cries for everything on the table."

This was the third attack of a similar nature. We treated the child by giving a colon irrigation at 101°, fomentations to back and front from chin to thighs, cold compress on head and face, finishing with a tepid sponge. She was left quietly sleeping.

Several days later we were again called and found the child suffering with a severe attack of bronchitis, and they allowed us to bring her to the hospital. She was at once put on a milk diet. At first she took only a small quantity, having almost no appetite because of her illness. She was fed at regular intervals with only diluted milk, giving plenty of cold water to drink between meals. As

she began to recover, we added zwieback once a day to her milk and she ate it with relish, then twice a day, and before she left the hospital she was eating a small amount of well-cooked rice in milk once a day to alternate with the zwieback; but the diet was mostly milk. She was getting fat with no signs of indigestion. The parents were carefully instructed how to feed their child and they made many good promises.

Milk should be the basis of the diet. They may also have some fruit juice or well-cooked fruit with the skin of the fruit excluded. It is of the greatest importance that the change from a purely liquid diet to one of solid food be made very gradually. The habit of drinking milk should be continued throughout childhood. The milk needs very little modification during the second year with most children. Rich cow's milk may be diluted with one fourth water. During hot weather a still greater dilution may be needed.

Be sure to wean the baby from the bottle, beginning at least by the twelfth or thirteenth month, so that by the fifteenth month the milk is all taken from a cup. It is important to teach the child to drink slowly. This he will not do if left to himself, and the prolonged use of the bottle tends to overfeeding.

*A suggestive daily schedule from 12 to 14 months:—*

6:00 a. m. Milk—6 to 8 ounces.

Gruel—2 to 3 ounces (oatmeal or barley water.)

9:00 a. m. Orange juice—2 to 3 ounces.

10:00 a. m. Milk and gruel, same as 6 a. m.

2:00 p. m. Milk—4 to 6 ounces, and small slice of crisp zwieback.

6:00 p. m. Same as 6 a. m.

Warm all milk for feeding.

*From fourteen to eighteen months:—*

6:00 a. m. Warmed milk—8 to 10 ounces.

9:00 a. m. Fruit juice—1 to 3 ounces.

10:00 a. m. Cereal—oatmeal or wheat-en grits, cooked four to six hours;



one, and later, two tablespoonfuls. Salt the cereal but use no sugar; thin cream may be added to it.

Milk, warmed to drink,—6 to 8 ounces.

2:00 p. m. Rice, cooked four hours, one tablespoonful at first; later, two (or cream of wheat).

Milk, warmed—4 to 6 ounces.

Zwieback, flakes, or milk toast.

6:00 p. m. Milk, warmed—8 to 10 ounces.

*From eighteen months to two years.*

Same number of meals; increase the amount of solid food, also add cooked fruits, such as pulp of baked apple, stewed prunes (strained); but do not give fruit at the same meal as milk. Nothing but water should be given between meals. Some kind of crackers may be added. It is best not to give potato until the child is two years old. Other vegetables should be withheld longer.

*From the third to the sixth year.*

For most children, feeding three meals a day is sufficient. Milk should still be the basis of the diet—about one quart daily. It may be diluted or not, according to the child's ability to digest it, and better be given warm. Cream is of value especially in children troubled with constipation. Let it be given on cereals, baked potato, in soups, cream toast, or mixed with milk. Potatoes may be given not oftener than once a day, baked or boiled and served with cream or milk gravy. Asparagus tips, green peas, spinach, stewed celery, carrots, and string beans,—these must be well cooked and mashed, never giving but one at a time for the mid-day meal.

*Cereals.* Serious disturbance of digestion is the rule after using the ready-to-serve cereals. Oatmeal, wheaten grits, cornmeal, hominy, rice, farina, and arrow-root,—any of these may be given if thoroughly cooked. Salt them and serve with cream, but no sugar.

*Soups* and vegetable purees made with milk or cream are very nourishing and easily digested. Crisp zwieback may be eaten with it. Bread or crackers may be given with nearly every meal, very little butter being allowed, and better none, till after the third year. The bread must always be somewhat dry, never fresh.

*Fruits.* A healthy child may take some fruit every day; oranges, baked apples,

and stewed prunes being the best. Peaches, pears, and grapes, with seeds and skins removed, may be given in small quantities only. Great care must be used in selecting fruits during very hot weather, that they may be fresh and not overripe. If decay has begun, it means a long sick spell for the little one. Only the juice of fresh berries should be given young children, and then without milk or cream.

#### LIST OF FORBIDDEN ARTICLES.

Meats of all kinds; vegetables—fried vegetables of all varieties, cabbage, potatoes (except boiled and baked), raw or fried onions, raw celery, radishes, lettuce, cucumbers, tomatoes (raw or cooked), beets, egg-plant, and green corn.

*Hot breads and cake.* All hot bread, rolls, and biscuits, all griddle cakes, all sweet cakes and frosting.

*Desserts.* Nuts, candies, pies, tarts, and pastry of every description; also salads, jellies, syrup, and preserves.

*Drinks.* Tea, coffee, soda water, etc.

*Nuts and fruits.* All dried fruits, bananas, very seedy fruits, all fruits out of season, and stale fruits, especially during the summer seasons; and nuts.

If three meals a day are not sufficient, four may be given; but for most children past three years, three meals are sufficient. Let the night meal be light.

*A few simple directions to be followed about the feeding:*—Teach the child to eat slowly and chew the food thoroughly. The food must be cut finely and in many instances mashed and put through the colander to separate the fibre. Children always masticate very imperfectly until the sixth or seventh year.

When children do not wish to eat at the regular meal hour it is unwise to urge them. Or, if the appetite is habitually poor, they should never be forced to eat. Indigestible articles of food should never be given to tempt the appetite when simple wholesome food is refused. Food should not be given between meals when it is refused at the regular meal time. If the child is made to wait until the next meal time the appetite will, as a rule, be more keen. When the child is not well, and also during excessive heat in the summer, the amount of solid food should be reduced and more water given. If milk is given, dilute with water.





## Exercise and Symmetry

BY A. WALLACE JONES

EXERCISE brings into active play the muscles which control the chest. Every time we breathe we move the ribs; and at the same time the cartilages by which the ribs are attached to the spine behind and to the sternum in front are also stretched and bent. Now if these movements are neglected, and we depend entirely for breath upon the movements of the diaphragm,— and there are a great many persons who do depend entirely upon the diaphragm, —we are never able fully to distend the chest, because, as the result of the neglect of movement, the cartilages have become hardened, and the joints are no longer flexible—they have lost their power to bend and stretch; the chest has become rigid.

Such a person cannot increase the size of his chest to any great degree. It is only by stretching the diaphragm down as far as possible that he is able to increase the capacity of his chest at all. His breathing capacity is thus limited, and he easily gets out of breath. This is one reason why an old person cannot run well.

Another point worthy of consideration is the effect of exercise upon the joints of the spinal column. Now each joint of the vertebral column contains a fibrocartilaginous body between the bodies of the vertebræ, the purpose of which is to render the vertebral column flexible. By means of these ingeniously constructed joints we can bend the body in every

direction. Now suppose we do not bend the trunk in every possible direction many times a day, or often enough to keep these joints flexible, what will be the result?—These cartilages which lie between the vertebræ, and which form about one-fourth of the entire vertebral column, will become, in time, inflexible and rigid. The ligaments also which bind the vertebræ together will lose their flexibility, and thus the ability to bend the spine will be lost. Further than this, the muscles which support the spine, being attached to the ribs and to the spines of the vertebræ become rigid and shortened when they are not stretched by frequent backward bendings, side-bendings, forward-bendings, etc. This is the reason why we find most old people unable to bend the trunk freely. How many persons even among those of middle age, are able to bend forward and touch the floor without bending the knees? You ask an old gentleman to touch the floor, bending only at the hips; and if he succeeds in getting over far enough to reach the floor, he does wonderfully well. Why is this?— It is because of the consolidation of the spinal column. If this same old gentleman had begun thirty or forty years ago to take regular exercise of this kind, he would not have lost his ability to bend the spine. At the age of fifty or sixty, or even at forty-five, a person whose spine has become rigid from lack of exercise, will not be likely to improve in this direction so as



to be able to touch the floor without bending the knees, unless unusually well preserved.

But you say, "What harm if a man cannot touch the floor without bending his knees? Isn't he just as well off physically as the man who can do so?"—By no means. This stiffness of the spine, especially in the lower regions, always involves a corresponding weakness of the abdominal muscles. When the spine is as rigid as a jury mast, the body is held erect with little muscular effort. It is thus not necessary for the muscles to be in constant play to keep the body balanced. This is a great disadvantage, since the muscles which hold the body erect, balancing the chest and shoulders upon the pelvis, by the same effort and at the same time perform a most useful office in holding the liver, spleen, stomach, bowels, and other important internal organs in position. Thus when these muscles become weakened through disuse, we have, as the result, a relaxation of the abdominal walls and a prolapse of the abdominal contents—the spleen, pancreas, liver, stomach, etc. It is thus apparent that there is a great significance in this rigidity of the back—it always means a weak, relaxed condition of the abdominal muscles; and this means weakness, disease, nervousness, in fact an endless multitude of maladies.

Thus we see that it is of vast importance that the elasticity of the joints and cartilages of the spine should be maintained. This can only be done by proper exercise begun in childhood and continued through life.

It is important that the youthful flexibility of all the joints and muscles should be preserved; and this may be done by constant exercise. The marvellous performances of acrobats have given rise to the idea that these men are double jointed. This is, of course, not true. They have simply preserved the flexibility of their joints by constant training. The acrobat is put in training when he is a small boy.

Professional acrobats usually have one or two small boys with them who participate in some of their performances. These small boys are the apprentices of the acrobats. The acrobat begins his professional work at the age of eight or ten; it is too late if he waits till he is twenty-five or thirty years old. The story is told of Pompey, the famous Roman general, that he had so maintained the elasticity and strength of his muscles by continuous exercise that he could run, leap, and carry heavy burdens equal to the most robust of his soldiers. Hufeland tells of a remarkable dancer, Galeria Copiola, an Italian woman, who made her first appearance on the stage as a professional dancer at the age of ninety, and who appeared before Augustus in that capacity some years later. Just think of a *danseuse* one hundred years old!

Another advantage of exercise—general regular, systematic exercise—is found in the fact that it counteracts the deforming tendency of occupations and bad positions. As the result of the bad position usually assumed in sitting, especially in a rocking-chair, the chest falls in, and posterior curvature of the spine is produced. Half an hour's daily work in a gymnasium will bring back the shoulders, restore the natural curve to the spine, and bring the chest forward and the hips back into a normal, symmetrical position. The daily use of such exercises will largely counteract the effects of bad positions. A person whose occupation causes a certain set of muscles to be constantly employed should take general, systematic gymnastics, to counteract the deforming tendency of his occupation. Every occupation, no matter what it is, and though it may supply an ample opportunity for muscular work, if it requires the long-continued use of particular sets of muscles, has a tendency to develop deformity, because the muscles which have been in constant use have become too strong for the rest of the body, and so pull the skeleton into some misshapen position. We must counteract this tendency by the development of those muscles which are not used in the daily occupation. Spinal curvatures and posterior and lateral curvatures, coming from bad positions, are all curable by proper exercise if begun in time.—*Good Health.*



# Nostrums

## Consumption Cures

NOSTRUMS and quack medicines vary greatly in the extent to which they constitute deliberate fraud. In the case of some of them, it is easy to believe that the makers themselves have a certain faith in their preparation, and recommend them in cases for which they are unsuited with that bona fides which arises from ignorance, assisted, unconsciously perhaps, by an appreciation of the profitable nature of the business. Such preparations for the complaints for which the nostrum is offered, are even occasionally combinations compounded in the first place from a medical prescription which may have been found useful in certain appropriate cases. The injury to the public in such substances arises from the excessive nature of the claims made, the excessive price usually charged, and the probability of the advertised medicine being taken in cases for which it is quite unsuitable, when it may do harm positively by its effects or negatively by preventing the sufferer from seeking proper advice.

But in other proprietary medicines it is quite clear that the makers cannot believe in the slightest degree in the claims they make; the "remedy" in these cases is some substance or mixture devoid of medical activity, possessing some slight therapeutic property having no relation to the disease for which the nostrum is put forward to cure. It is often, indeed, for inert preparations that the most extravagant and emphatic claims are made: the makers, and the advertisement writers whom they employ, are untrammelled by any necessity for squaring their statements with the real properties of the thing to be recommended, and having set out con-

sciously and deliberately to deceive, they are able to give their whole attention to telling the most effective stories in the most plausible manner, and reaping the maximum of payment for the minimum of expenditure. People who are ill or suffering are to be frightened with impressive pictures of the aggravated suffering and premature death that await them, unless they take the "only cure" in question; therefore let them be frightened thoroughly. Careful suggestion will induce people who are not ill to believe that they or some of those dear to them are in the early stages of some disease; therefore let everything possible in the way of striking advertisements, personal letters, and repeated assertions be utilized to produce the results. It is the victim's money that is wanted; therefore let the price be fixed high, and the advertisements be written up to it. If it is discovered by correspondence that so much cannot be cajoled or frightened out of the individual sufferer, the price can be reduced gradually as "special concessions," in return for which testimonials may be extracted.

Of quack medicines the sale of which is conducted more or less on these lines, two examples are here described.

One of the two dealt with is "Tuberculozine." Largely advertised in Great Britain but apparently of American origin; it affords an instructive example of the methods of the Trans Atlantic nostrum monger. The two liquids sold under this name consists of little more than coloured, flavoured water, but the modest price demanded is Two Pounds, Ten shillings for a month's supply. No effort is spared to induce the victim to continue "the treat-



ment" month by month, in spite of the evident absence of any benefit, which is unblushingly accounted for by the seriousness of this particular case, while the necessity of getting the system thoroughly permeated with the remedy is insisted upon.

The sale of another preparation advertised as a cure for consumption, Stevens Consumption Cure, is conducted in a very similar way, but this time the herbs are said to be African, and the odd names they bear certainly have a Kaffir flavour. The vendor considerably warns the public against American quacks and imposters and against the preposterous and wicked swindles of the Polish and German Jews. Although Stevens is so engagingly candid about his rivals, he follows the plan of sending one letter after another to any sufferer whose name he may have obtained, a system which seems to have been invented in America; it is certainly cheaper than bold advertisements in the newspapers, and apparently found even more satisfactory, as it enables the vendor to give individual attention to the depth of his correspondent's pocket if not to the severity of his disease. But Stevens has somewhat bettered his instruction, and his letters and circulars have a character of their own, due to the effrontery of his attitude toward the medical profession. Persons who respond to the advertisement receive a list of questions to be answered by the observation of their medical man in order that the latter may be impressed with the

marvellous effects of the remedy. Not long ago a circular was sent out to the medical practitioners asking them to treat consumptive cases "which defy all ordinary remedies" with this secret preparation. The circular continues: "The great drawback to my cure, so far as the medical profession is concerned, has always been the fact that I would not reveal its formula. This is now done away with: its formula is 80 grains of umckaloaba root and  $13\frac{1}{3}$  grains of chijitse to every ounce, prepared according to British Pharmacopea methods." The farce of revealing a formula by the employment of such fancy names as these is one of the oldest dodges of the quack medicine man, and no such names as "umckaloabo" and "chijitse" appear in any available work of reference on pharmacy. Enquiries made in various parts of South Africa have been negative, experts in nature matters being unable to ascertain that the names were known. Further, the Native Affairs Department of Cape Colony has caused inquiries to be made in the Trans—territories into the question whether the native tribes there resident had any knowledge of "umckaloabo" and "chijitse," or their reputed medicinal properties. The result of the enquiry was entirely negative. Nothing was known of any such plants, nor was it even possible to identify their names. Smith's South African Materia Medica contains no record of any such names as "umckaloaba" and "chijitse."—*Secret Remedies, British Medical Association.*





## Abstracts

### LIBERAL DIET IN TYPHOID

It must have taken considerable courage on the part of the first person who undertook the liberal feeding of typhoid patients when the usually accepted opinion was that starvation or semistarvation was the proper procedure. But the liberal dietary, although it met with more or less vigorous protest and remonstrance and predictions of disaster, has by its success justified the faith of its pioneer, and now it is coming into more or less general use; and by liberal diet is meant a more generous diet than the average outdoor worker generally eats. It is surprising how well patients seem to thrive on these heavy rations.

As stated editorially in the *Journal A. M. A.*, the daily use of a quart of milk, a pint of cream, six or seven ounces of milk-sugar, several eggs, toast, butter, cereals, potato, custards, and apple sauce,—in short, a dietary calculated to more than satisfy the appetite of the ordinary healthy man,—in a disease supposed to call for most careful sparing of the gastro-intestinal canal, has evoked a silent protest or even mild reproof.

"It has been well said, however, that things move along so rapidly nowadays that the people who say it can not be done are often interrupted by some one doing it."

And they are doing it, feeding patients liberally, but they are careful to avoid decomposition.

"Meat is excluded, but easily digested carbohydrates are abundant, and fats are liberally administered in palatable forms and furnish contribution to the energy intake. In its make-up the diet is decidedly antiputrefactive in character."

Undoubtedly, in order to have such quantities of food taken by the patient and eaten with that gusto which will make for good digestion, the highest skill of a sympathetic and well-trained nurse is required.

### EDUCATION AND HEALTH

"EDUCATION is the most important factor in all health problems," said Charles J. Hastings, of Toronto, before the National Housing Conference. Legislation providing for better sanitation, for better housing conditions, in fact any legislation intended to improve the condition of the people, can

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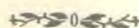
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accomplish little if it is not accompanied with an adequate, enthusiastic campaign of education.

Legislation intended for the general good is sure to pinch somewhere. It must compel some one to do his duty, or forbid the doing of something that would be harmful to others. Those few who are disturbed by the law will antagonize it; and unless the great majority who might benefit by the law if enforced, realize its value and importance to them, they will let it die under the attacks of interested parties. Hence, with all new legislation there should be a campaign of education.

This is only one phase of the educational problem. There are thousands, including many of the so-called better classes, who need to learn that health is not obtained out of a bottle, but is dependent entirely on methods of living, environment, etc.

Housing reformers and health inspectors generally encounter two great obstacles to the enforcement of sanitary legislation,—the opposition of interested parties whose gains would be diminished if they were compelled to put their properties in good sanitary condition, and the indifference and ignorance of those who have all their lives been used to squalor, and who do not realize to what extent such conditions impair the health.

Education may not reach the first class, for with them it is a change of heart rather than a change of head that is needed; but the exploited class, the defenceless class, getting but the dregs of civilization, need to know wherein the law provides for their protection, and what they can do to help make the law effective.

#### NEWER PROBLEMS OF TUBERCULOSIS

At the annual meeting of the American Public Health Association, Dr. Knopf, in his usual crisp way, instead of reading a paper, delivered offhand some of the things that impressed him as most important in the present status of the warfare against tuberculosis.

First, we must not forget the part the cow plays in tuberculosis, said the doctor; for ten per cent of the children who die of tuberculosis die of the bovine form, obtained probably from milk.

We must give more attention to the butter we eat, as it has been shown that butter does actually harbour tubercle bacilli, and

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we should sterilize all cream that is to be made into butter.

It is the *last-born child*, as a rule, that contracts tuberculosis, the mother being worn out, not so vigorous, and not able to give so much care as when the family was small, and possibly there are more mouths to feed and the little child is not so well nourished.

No one with open tuberculosis should ever be given a license for marriage.

Open-air schools should be provided for all inclined to tuberculosis. Open-air schools should be the rule and not the exception. Such a school is easy to make. Take out two walls of the building, and clothe the children well. It does not cost much, and saves lives. The high school also should have its open-air room.

If anything predisposes to tuberculosis, it is child labour in the factory and in the home. There is nothing more cruel in our civilization.

We should not forget the ambulant, or walking, case of tuberculosis that is not under supervision. He is a bacillus carrier, more dangerous if careless than the more advanced case who can not get around.

Spitting laws are generally unenforceable. It would add much to the effect of the laws if in addition to the sign, "Do not spit on the street and sidewalk," there should be a cuspidor with the sign, "Spit here."

We should give more attention to the family of the consumptive. He himself would be more at ease, and hence more likely to recover, if he knew his family were taken care of.

Another problem is the tuberculosis immigrant who may look healthy after his ocean trip, but who develops his disease in a bad form a few months after his arrival, especially as he probably has to live in very unhygienic conditions.

It is a crime for the people of one State to send their tuberculosis cases to another State to be taken care of.

Tuberculosis is a social problem; unless we consider that we are our brother's keeper, we shall never solve it.

#### TENDENCY TOWARD FEWER PRESCRIPTIONS

DR. HENRY BEATES, president of the Pennsylvania State Medical Examining Board, addressing the Philadelphia branch

## The Best Drink

for either warm or cold weather is *Caramel Cereal*. Served in cold weather piping hot for breakfast, tea or luncheon, it is unequalled. Served cold, iced if you desire it, in the hot, steamy months, it is delightfully refreshing.

What is of more importance from a health standpoint it is absolutely harmless. You can drink it any time of the day or night and suffer no ill effects.

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of the American Pharmaceutical Association said that one reason why physicians now give so few prescriptions for Galenical preparations is that they do not know how to write prescriptions; that they are ignorant of the exact action of drugs, and that this ignorance has caused the profession to resort largely to the use of ready-made proprietary mixtures. He further states that when a physician prescribes a drug, he rarely knows exactly how it acts, but knows only that the patient gets better or worse. The *New York Medical Journal*, March 8, 1913, commenting on this, says:—

"This is a severe arraignment of the present day curriculum, but it is one for which we fear there is more than a modicum of justification."

Considering the prominence of the man who makes this assertion, we think it is well worth considering, and would ask, If the practise of medicine is so open to criticism by its own strong men; if the pharmacopœia is so untrustworthy that scarcely any physicians depend upon it, but use proprietary drugs furnished them by the houses whose main interest is to push the drugs, why in the name of sense drive to the wall those who use non-drug methods? The *Journal*, speaking of the medical colleges, says that "in many cases the tendency toward drugless therapy is reflected in the relegation of the study of materia medica to a less important place than it is entitled to."

If the doctors have shown a distrust of the pharmacopœia, if the schools themselves are more and more tending toward non-drug methods, can we not be assured that this is the inevitable tendency of the age? As the regular school was compelled to give up some of its earlier and cruder methods by rubbing up against homeopathy as it has been compelled in self-defence to take over hydrotherapy and other non-drug treatments, will not the process continue to the eventual practical overthrow of the pharmacopœia and all-drug practise as the main dependence of physicians? and would not the fight of the physicians against nostrums be much more forceful if they themselves were more completely divorced from the use of drugs, the effects of which they themselves are in ignorance?

The writer believes that eventually the regular school must choose between substituting drug therapy by non-drug therapy or surrender the field to some competitors. Note, for instance, the astounding growth of osteopathy within the past twenty years, despite all attempts to regulate it by legislation and otherwise.

## The Arc Light



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The Indian Health Magazine

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## NEWS NOTES

### CONGRESS IN THE ORIENT ON TROPICAL MEDICINE.

The third congress of the Far Eastern Association of Tropical Medicine is to be held at Saigon, French Cochinchina, November 8 to 15. The first congress was held in Manila in 1910 and the second in Hongkong in 1912.

### THE LISTER MEMORIAL FUND

Considerable progress is being made with the Lister Memorial Fund. Committees have been formed by Oxford, Cambridge, Durham and other universities to promote the memorial, and arrangements have been made for the formation of committees in the British dominion and in foreign countries.

### PUBLIC DRINKING-CUP PROHIBITED.

The use of the public drinking-cup on all interstate common carriers, rail or water, has been prohibited by order of the United States Public Health Service. The drinking water used on such carriers must be certified as to purity, and the containers must be scalded with steam at least once a week. This is certainly a long step in advance.

### TO OUR READERS

To the one sending us the best article limited to 100 words on the subject "The Best Suggestion for the Improvement of Herald" we will extend his subscription to "Herald of Health" six months. The names of the successful writer, first and second honourable mention will be published in Herald. All articles must be sent to the Editor of "Herald of Health" 17, Abbott Road, Lucknow not later than October 20th.

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