

Herald of Health

Mercy

The quality of mercy is not strained;
It droppeth as the gentle rain from heaven
Upon the place beneath; it is twice blessed;
It blesseth him that gives and him that takes;
'Tis mightiest in the mightiest; it becomes
The throned monarch better than his crown,
His sceptre shows the force of temporal power,
The attribute to awe and majesty,
Wherein doth sit the dread and fear of kings;
But mercy is above this sceptred sway,—
It is enthroned in the heart of kings;
It is an attribute of God himself;
And earthly power doth then show likest God's
When mercy seasons justice.

—Shakespeare.

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As far as possible half-tones and zinc etchings will be furnished, providing satisfactory photographs or drawings are supplied by the author.



REST

By ELIZA H. MORTON

AN artist sought upon his canvas broad
To paint a thought of rest. He sketched a lake—
A still, lone lake, afar among the hills.
He made the water fast asleep, and all
Around as though it were the grave; as if
Stagnation on the face of nature sat.
'Twas rest, but not the rest in life we need.
Another painter took his brush, and flung
Upon his canvas water thundering down
A precipice; and o'er the waterfall
He sketched a tree, bending out o'er the foam;
Within the fork of that frail tree he placed
A robin in a nest, and one could hear,
Almost, its song of trust. Aye, that was rest.
'Mid dangers all around, the bird has wings,
And so have we, if we but trust in One
Who has the power to keep our minds in peace—
The One, the only One, to give us rest.

Portland, Maine.

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HERALD OF HEALTH

The Indian Health Magazine.

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

S. A. Wellman, Asso. Editor.

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Lucknow, U. P., October, 1912,

No. 10

Health Hints

"THE diet question deserves careful study."

"A reform in eating would be a saving in expense and labour."

"The diet affects both physical and moral health."

"Those who will not eat and drink from principle, will not be governed by principle in other things."

"The dishes usually prepared for desert should be dispensed with."

"The proper cooking of food is a most essential requirement, especially where meat is not made an article of diet. Something must be prepared to take the place of meat, and these foods must be well prepared, so that meat will not be desired."

"Cooking can be done in a simple, healthful and easy manner without swimming the articles in grease. Foods saturated with grease are unwholesome and hard to digest."

"Those interested in healthful living should take the pains to educate themselves in the preparation of healthful dishes."

"People cannot all eat the same things. Some articles of food that are wholesome and palatable to one person may be hurtful to another. So it is impossible to make an unvarying rule by which to regulate everyones' dietetic habits."

"All the elements of nutrition are contained in nuts, fruits, vegetables and grains."

"Nuts, fruits, grains, and vegetables, prepared in a simple way, free from spice and grease, make with milk and cream the most healthful diet. They impart nourishment to the body, and give power of endurance and vigour of intellect that are not produced by a stimulating diet."

"Dry food which requires thorough mastication, is far preferable to porridges."

"Food should be prepared with simplicity and yet with a nicety that will invite the appetite."

"Great care should be taken when the change is made from a flesh diet to a vegetarian diet, to supply the table with wisely prepared, well-cooked articles of food."

"Hot raised bread of any kind is difficult of digestion."

"There should not be many kinds at any one meal, but all meals should not be composed of the same kinds of food without variation."

"If your work is sedentary take exercise every day and at each meal eat only three or four kinds of simple food."



General Articles



Health or Fashion, Which?

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

A CURSORY glance at the dictionary tells us that fashion means conformity, usually, we may add, blind conformity, to some style, custom, mode or practice. It is quite obvious that fashion is concerned particularly with "looks" or outward appearance, and has fundamentally nothing to do with character or intrinsic worth.

Fashions naturally fall into two classes, *good* and *bad*, and of course, it is with some of the latter that we propose to deal. But in either case the rule of Fashion is inexorable, for Fashion always subjects its followers to a tyranny which is sometimes almost unendurable and to a bondage that is often revolting.

Fashion, *per se*, has nothing to do with the wholesomeness of a thing or practice. It never asks the question, what is right, or best, or most fitting. Fashion merely says, What is the prevailing practice? What is conventional? and it matters not whether it be wholesome or unwholesome, good or bad, right or wrong, it must be obeyed.

FASHION PERVADES EVERYTHING

There is scarcely anything in our daily life which is not more or less influenced by the rule of fashion. Why, there is even fashion in bread nowadays and there has been a fierce battle between the fashionable white bread on the one side and the healthful "standard bread" on the other. Fashion says eat white bread, the whiter the better; health says, never mind about colour, but eat that which is good, get all the nutrition from the wheat berry. Really, when one stops to think about the matter carefully, it must be perfectly clear

that bread made from finely ground whole-meal flour, including all of the wheat grain except the husk, is the better balanced food, and therefore the more wholesome.

But how many people are going to eat wholemeal bread until it becomes fashionable and customary? Very few indeed. Which shall it be then, health or fashion?

FASHION IN MILK

It may seem passing strange that there should be also a fashion in milk, but that this is so is easily proved. Did you ever stop to think of the *colour* of the milk which your dairyman furnishes? London milk, and doubtless the same is true of other large cities and towns, possesses a uniform, pleasing, yellow tint that indicates a richness in cream, which is rarely if ever, present. "But isn't the colour natural?" you may say. No, certainly not. You ask your dairyman to give you uncoloured milk, and if he is an honest man, he will finally explain that it will be bothersome and even difficult to do so, for he will tell you that all the milk in London is coloured. It is true that natural milk in springtime, when the cattle are turned into the green pastures, does possess a faint straw colour, especially in the case of milk from Alderney and Jersey cows, but this is the exception, and uncoloured milk in the majority of cases would be practically white.

I once asked a dairyman why he coloured the milk, and the answer was very prompt. "Because we could not sell it otherwise sir." People want milk rich in cream, and all that is necessary is to add some yellow dye, annatto is perhaps the

most common, and then the people think they are getting what they want.

FASHION IN DRINK

Have you ever thought how many men and women who drink wine, whisky, brandy, etc., do so because it is fashionable. True many, and probably the majority, do so because they acquired the habit and find it difficult, if not impossible, to do without strong drink, that is they think so; but it is nevertheless true that fashion has a great deal to answer for in the prevailing use of alcoholic beverages of one kind or another. Why, even a nursing mother is influenced by it. For a long time it was customary to think that such women would be benefited by the use of ale or stout or porter, but we are glad to say that this is one of the fashions that shows distinct signs of passing away with time.

The fashion of standing a drink or treating one's companions is strongly ingrained in the minds of most classes of men. And to give a courteous "No, thank you," is a very difficult matter, for it is not unlikely to bring an incredulous smile if not actual ridicule, from many lips, and we have been told by many business men, and especially those who travel for the purpose of soliciting orders and selling goods, that it is almost impossible to consummate a bargain or place an order without standing a drink, and then, they say, see how awkward it would be not to join in the drink yourself.

We firmly believe that if alcoholic beverages were no longer fashionable that a large amount of intemperance, aye, and also drunkenness, would promptly cease.

TOBACCO, TEA, AND COFFEE

But there are other stimulants as well as alcohol. Consider for a moment the real influence and effect of any stimulant, mild or strong. The average person thinks that it is beneficial; he feels stimulated, that is, he feels a sense of well-being exhilaration. He also thinks—but this is pure imagination—that he possesses increas-

ed fitness, for he *feels* better able to do his task. But this is a case in which feeling cannot be trusted. This feeling of increased fitness is all a fallacy, for a stimulant, whether it be alcohol or tobacco, or merely tea and coffee, is only a whip, and more often than not a cruel whip at that, a whip which causes bodily injury more or less serious, and more or less lasting. We should all feel indignant were we to see a driver whipping his jaded horse that is pulling a heavy load up hill. We say it is cruel, and we have a society for the prevention of cruelty to animals, and great has been the good accomplished by this society. Why not a society for the prevention of cruelty to men and women? Why not endeavour to prevent them from whipping their tired bodies by the use of stimulants of one sort or another.

Has it ever occurred to you that Nature knows our physical and mental limitations even better than we do? When Nature says stop, it is always unwise to push ahead. Weariness and fatigue are intended by Nature to be the signals of danger, indicating that the time has come for rest and recreation. It is always dangerous not to heed the warnings of Nature.

Now about that cup of tea which often proves so refreshing, in the afternoon. Why is it refreshing, and why do you want it so badly? Simply because the nerves are tired and are losing the benumbing and therefore soothing influence of the previous cup, so there is the craving for another cup to continue the benumbing effect, and thus alleviate the natural weariness as well as the ache or pain that may be present.

Do stimulants nourish or sustain the body or any of its faculties? There is no hesitation in giving a complete and emphatic negative in answer to this question. No, alcohol is not a food, and the same is equally true of tobacco, tea, and coffee. The food value of the latter drinks is

measured by the cream and sugar added. They are not taken for their nourishing properties, but only for their narcotic, stimulant effects.

STIMULATING FOOD

Fashion rules largely in food matters. Few people inquire what the natural diet is. They are content with what their neighbours and friends take whether it is wholesome or unwholesome. There is a prejudice against the fruitarian diet simply because it is not the usual thing, it is not customary. People don't want to be thought eccentric or peculiar. Anything like originality or individuality in food matters seems highly undesirable to the average man, and so he must needs go on taking a more or less unsuitable and oftentimes distinctly harmful flesh diet. Fruit is looked upon as a sort of unimportant accessory, which is well enough at dessert, but is not seriously regarded as a reliable or valuable food, and the same is true of nuts, which by the way, are the natural meats for the body, containing as they do a large proportion of both proteid and fat. Anyone who has tried the experiment of dropping the flesh diet abruptly must have noticed a loss of the mild stimulation which each flesh meal brought him. On getting up from a meat dinner there is a certain sense of stimulation, a feeling of having partaken of a square meal, which is not nearly so obvious after the first few fruitarian dinners. The explanation is simple. Flesh meats contain various animal extracts, waste, excrementitious matter if you please, which produce this passing sense of stimulation. But such food does not give real endurance. The average flesh eater finds it difficult to wait for his dinner or skip a meal. He feels the loss keenly. Not so with the fruitarian, for his diet gives not only strength, but also endurance, and he is able to skip a meal with little discomfort any time it is necessary. There can be no question but that

the large use of flesh, which is so fashionable to-day, militates very seriously and oftentimes very gravely against the health of the nation.

THE RAINY DAY SKIRT

People are wont to associate fashion with dress, but we think we have made it clear that fashion has to do with many more things than dress. Nevertheless it is true that in no phase of life is the tyranny of fashion more unreasonable or at times more atrocious than in the case of dress. Take the rainy day skirt for example. For years a few sensible women have advocated and worn the rainy day skirt, and, by the way, the term means a skirt which does not wash the pavement and the street or sweep the dust away, but is short enough to give a certain degree of comfort when walking in the rain or at any time. Such a skirt might be six or even twelve inches from the floor. But Dame fashion turned up her nose at it, and so her silly followers—pardon the expression—followed suit and turned up their noses, and there was no chance for the short skirt.

But recently we have seen the advent of the hobble skirt, and then all of a sudden, short skirts, tight skirts, not to say ridiculous skirts, became the fashion of at least a few. This is a fashion that we can almost tolerate on account of the abbreviated length of the skirt, but mere man would wonder why, in the shortening of the skirt, it also became necessary to diminish its breadth, and make it a dangerous article of apparel when crossing a crowded street. Not long ago we saw a distressing accident in Oxford Circus when an ultrafashionable woman was hastening across the street, and, on account of the narrowness of her skirt, found it impossible to get on, and fell headlong before reaching the pavement. Luckily the traffic was controlled in time so that she sustained no other injury than the bruises from the fall, and the ruin of the dress. We leave you to imagine the appearance of the poor woman when she finally, by means of assistance, was able to get on her feet again.

(To be Concluded)

Health and Common Sense

EVA J. DEMARSH

Do you ever have colds? Of course you do, and of course you believe it is because you expose yourself. Perhaps you did, and then perhaps you did not. To some persons a cold comes easily; others seldom have one. There are many reasons for this. One's natural constitution and general state of health have something to do with it, but habits and training have more. Your careless or selfish neighbour may thrust a cold on you, or circumstances may compel you to remain under conditions which are favourable to the production of one.

Many persons live in constant fear of drafts and pneumonia. A breath of wind, or news that a friend or an acquaintance has pneumonia or bronchitis, is to them as a red rag to a bull. Immediately they gasp and choke, coddle themselves, and often really develop some throat, bronchial or lung trouble. I have actually seen this occur.

Many elderly people have a horror of night air, and yet there is nothing like a shut-up room to stupefy the brain and clog the breathing apparatus. More colds and bronchial troubles are the result of breathing foul, heavy air than of an overdose of fresh air. People who live much in the open seldom have colds. They are full of health and vigour, and accomplish much more than those who live in an enervating atmosphere.

Of course one must use common sense. The feet must be kept warm and dry, and the body properly protected. Sudden drafts and changes of temperature are to be avoided; and if one has been in the habit of being overcareful, he must make the transition from closed windows and a shut-up house a gradual one. When one is once accustomed to a clear, cool temperature, however, nothing can tempt a

return to former conditions. I know a bright, happy little girl who, with her parents, has practically lived in the open air. Even in babyhood she enjoyed unlimited quantities of fresh air, and in warm winter clothing, or cuddled in her sleepingbag, she laughed to scorn the icy winds.

Have you ever, when wearied almost to the point of exhaustion, boarded a trolley-car and swept out into the country? And have you realized how quickly a sense of exhilaration replaced the dull, tired feeling? Then fresh air as a tonic has a meaning for you. It means deep breathing, good circulation, blood warm and red, clearness of brain, cleaner, sweeter thoughts, cheerfulness of disposition, and an unlimited capacity for doing things. Did you ever stop to think how healthfulness of body tends to a saner, larger outlook on life? how little, mean, petty, uncharitable feelings disappear before sound sleep and bodily health? People may talk about serenity of soul and poise all they like as the product of self-control, but how many of us can rise above ill health, overstrained nerves, jaded brains? Will is powerful, but God alone is all-powerful.

Genius itself would wither and die in a foul, fetid atmosphere. Many people can not even think clearly and connectedly where there are unpleasant odours; how much less when the brain is poisoned by foul air. Fire will not burn without oxygen, nor can the human brain and body work intelligently and capably without an abundance of this life-giving element.

Nervousness may result from overwork and overworry, but the chances are that improper conditions of living are at the bottom of it all. One can do a large amount of work in the open or under sanitary indoor conditions, but how quickly he will droop in a close atmosphere, how

nervous and irritable he will become, and how all the world will go awry for him. Health is God's first, best gift, my friend.

Keep it, if you have it; pursue it, if you have it not. With it, all earth is yours; without it, earth is dross.

Diet: Its Relation to Endurance and Health

W. A. RUBLE, M. D.

ONE of the most important matters for consideration by every person desiring health is that of diet. Only within the past few years has this subject received the attention that it deserves. The increase of disease has recently so impressed medical men, scientists, and the people at large that much thought has been given to the matter of health and endurance.

Dr. Haig, a well-known English physician, says, "In diet lies the key to nine tenths of the social and political problems that vex our nation and time." Much more does it lie at the foundation of health and strength.

The elements of food are principally carbohydrates (comprising starches and sugars), fats, and protein. Of these, carbohydrates compose the greater part of the diet. This element comes from grains, fruits, vegetables, and nuts. The fats are derived from the fats of animals, as butter and cream, and from olives, cottonseed, and nuts. The protein part of the food is derived from muscles of animals, milk, eggs, beans, peas, lentils, nuts, and grains.

Errors in diet are responsible for a great deal of sickness. These errors are principally rapid eating, overeating, and an excess of the protein element in the food. It is to this latter point that we shall confine our attention.

The body may be likened to an engine. In fact it is the most perfect piece of apparatus in existence for transforming fuel into energy. The different foods furnish heat, energy, and the structure of

the engine. The carbohydrates and fats produce heat and energy. They correspond to the fuel used in an engine. The protein produces muscular tissue, and furnishes some energy. It is the iron work of the engine. While in an engine tons of coal are used to produce energy, but little iron is necessary in the way of repairs after the engine is first perfected. So in the body, an abundance of fat and starches and sugar is necessary for heat and energy, but little protein is needed for repairs.

In the combustion that takes place in the body, fats, starches, and sugars are almost entirely burned up, with the liberation of heat and energy, the end products being carbonic acid gas that passes off in the breath, and water. The protein, if eaten in greater amount than is needed to rebuild muscle tissue, results in waste material, which must be thrown off by certain organs or it will clog the system, just as iron fed to a furnace would result in clinkers and waste. The body partly changes this excess of protein into substances that can be excreted, but the excretory organs can dispose of only a limited amount of waste, and all above that amount may remain in the tissues as uric acid or other waste products. Provision is made in the body for storing fat and carbohydrates for use in emergency, but there is no provision for storing protein. Continuing the simile, the engine carries coal, but not repairs. An excess of protein therefore results in waste materials, which may obstruct the working of the

body. This brings us to the consideration of endurance as modified by diet.

It has been generally believed that a high protein diet is necessary to enable one to endure hard work, but it has recently been demonstrated that a high-protein diet produces early fatigue. Muscle-cells and nerve-cells which respectively produce and liberate energy are surrounded in their work by the body fluids from which they generate the energy they produce. If these fluids contain an excess of waste material, heavier work is thrown upon these structures, and nourishment will be received with greater difficulty. Hence, fatigue comes earlier and with less exertion where excess of wastes accumulate in the system.

Another factor entering into the problem of a high-protein dietary is its source. Flesh-meat is the usual source of protein and with many people it is the principal article of diet. In the activity of every animal cell there is a production of waste material. Each animal, human or otherwise, produces as much waste in its own body as it can easily care for. When, however, the extra amount of waste material, as uric acid, produced in one animal is eaten by another, as is done when flesh-meat is taken, there is evidently a double proportion of waste material to be excreted or to clog the system. This actually takes place in the tissue, forming what is sometimes called a uric-acid diathesis.

Writing on the matter of fatigue, Dr. Haig gives two tests between flesh-eaters and non-flesh-eaters: "Fourteen meat-eaters and eight vegetarians started on a seventy-mile walking match. All the vegetarians reached the goal in splendid condition, the first covering the distance in fourteen and a quarter hours. An hour after the last vegetarian, came the first meat-eater, and he was completely exhausted. He was also the last meat-eater,

for all the rest had dropped off after thirty-five miles of endeavour."

"More recently in a walking match (Dresden to Berlin, 125 miles), six vegetarians again came in first, and the then champion walker of Germany was among those who gave up the contest." In summing up, Dr. Haig says: "In my opinion a few more hard facts like these will dispel the delusion that strength and endurance can be attained only on flesh food. The truth is that fifty per cent more endurance and strength can be obtained from many other foods."

American scientists are not behind in observations along this line, nor do their conclusions differ from scientists across the water. Some very interesting experiments have been performed and recorded by Prof. Russell H. Chittenden, president of the American Physiological Society and director of the Sheffield Scientific School of Yale. He took twenty soldiers of the United States Army, and placed them on a diet containing about one third of the protein food to which they were accustomed. Reporting this experiment, Professor Chittenden says: "The experiment results presented afford very convincing proof that the needs of the body are fully met by a consumption of protein food far below the fixed dietary standard, and still farther below the amount called for by the recorded habits of mankind. General health is equally well maintained. Most conspicuous was the effect observed on the muscular strength of the subjects. Without exception we note with all of the men a phenomenal gain in strength." The total strength in almost every case more than doubled in six months, according to his reports.

Other tests were made with members of the athletic clubs of Yale, with similar results. In writing of this latter test, Professor Chittenden says: "The main lesson from the experiment was that the men im-

proved in health and physical endurance. By actual gymnasium tests it was found that the physical endurance of the men was approximately doubled in five months.

DIET AND DISEASE

As before, the special point under consideration is a high-protein diet, including a flesh diet, and its relation to disease. There are two classes of disease. One results from excess in protein waste products, and includes those diseases referable to the central nervous system, as headaches, nervousness, insomnia, and such abnormal conditions due to irritation caused by waste material in the blood and nerve-tissues. The other class results from deposits of uric acid and other waste products in the muscles and less delicate tissues, and produce rheumatism, gout, and kindred diseases. One of the first things a physician does for a patient suffering from rheumatism is to restrict the amount of flesh-meat and other protein used. If this is necessary to cure the disease, why not adopt the plan in order to prevent the disease?

The kidneys are the organs which eliminate the waste products. When overworked by excess of this waste in the blood, the kidneys fail and kidney disease results. This, of course, is not the only cause for this disease, but is one important cause. More or less obstruction to blood-flow is offered by the waste matter in the system, and the small arteries are hardened, making greater blood pressure necessary in order to force the blood through the tissues. There is some evidence that the blood-vessels are hardened and rendered brittle by the same waste material.

Apoplexy is a rather common disease. It is due to this hardening of the vessels and high blood pressure, which result in rupture of a blood-vessel in the brain. Other serious diseases result from this same cause.

There are two important features of a flesh diet that are often overlooked. These should especially appeal to those who are interested in intemperance. A flesh diet is quickly digested, the nourishment readily reaches the blood, and is exhausted in a much shorter time than that from another diet. This calls for frequent meals or for some kind of stimulant "to keep up the strength." Tobacco, tea and coffee, and even alcohol are resorted to.

The waste products in the flesh are stimulating, and as soon as their stimulating effect has passed off, other stimulants are needed. This also leads to intemperance.

To sum up:—

1. A high-protein diet results in waste material, which clogs the system, rendering the muscles and nerve-cells less free to act, thus causing early fatigue.

2. Such diet, especially where it comes from flesh, readily gives up nourishment to the blood, which nourishment is early exhausted, also producing fatigue and a demand for stimulants.

3. Waste material from such diet obstructs the circulation and hardens the arteries, leading to apoplexy, kidney disease, early senility, and other disorders.

4. Diseases, such as many nervous disorders, rheumatism, and gout, result from the same cause.

A Delusion and a Snare

THERE is an impression in the minds of many good-meaning people that there is no harm in taking an occasional glass of liquor, and that, if used in moderation, there is a place for the right kind in the

home, where it will heighten the pleasure of the festive gathering and be in readiness in the event of sickness. At times there may appear to be some little ground for this impression, true or false.

It must be admitted that under its influence troubles of every sort seem for a while to be entirely forgotten, and all may go along as merrily as a marriage feast, and that the miserable beggar and those struggling against poverty become all at once independent and free of care as though they possessed untold wealth.

But are its benefits real and lasting? There is one view of this subject that is too frequently overlooked by those good-meaning people referred to, who favour the careful use of stimulants in the home—the influence of that liquor upon the future lives of the innocent children under their roof.

The children become familiar with spirits by its presence in the decanter on the sideboard, or in the prettily labelled and sealed bottle on the shelf—most dangerous snares, unwittingly set by their parents for their little feet almost before they leave the nursery, the time when their guardians should have been constantly impressing upon their sensitive minds, by precept and example, to touch not, taste not, nor handle the accursed thing, for "whosoever is deceived thereby is not wise."

When these precautions are neglected in the home, we are forced to the conclusion, by observation and experience, that where there is one who will grow up to despise and shun intoxicating drink, many will fall under its influence, and ultimately fill the grave of the drunkard.

But the labour of parents who carefully train their children in this respect will not go unrewarded. Memories of the old home with its fragrant associations will be recalled with feelings of deepest gratitude by those who go out from the shelter of its peaceful roof.

A farmer once took a waggon-load of ore which he had discovered on his property into a city for examination, and waited anxiously to know the result of the test.

He was delighted when informed that the ore really contained gold, as he had supposed; but when he learned that the cost of extracting the gold would be far greater than the worth of the gold produced, his countenance changed. The gold was not in it in paying quantities.

Is there not a similarity between the farmer's experience and the disappointment awaiting those who drink in the expectation of deriving real, lasting benefit from its use? The benefit that is supposed to be connected with the use of intoxicating drink is not realised in paying quantities to tempt any sensible person to meddle with it.

There is overwhelming testimony from eminent sources, reliable and convincing, to show that intoxicating liquor in any form is not indispensable in the sick room. Its purpose can be served with safer remedies and agencies that are harmless. However, at very wide intervals in a physician's practice it may perhaps be regarded by some as pardonable to permit a little stimulant in the form of wine or spirits for "mental effect" in a critical case, where the patient and his friends fully believe that death will result if liquor is withheld.

As to its saving life in an emergency, I cannot speak with any degree of assurance. The only authentic instance of the kind I know of where drink was the means of saving life was the case of a man who, on returning to the well he had been digging, found that during his visit to the public-house the well had caved in, and he reasoned that but for the drink he certainly would have lost his life.

On the other hand, in common with members of the medical profession, I can speak positively of cases of maimed bodies, broken limbs, and loss of life directly traceable to the use of intoxicating liquor.

A. S.



Editorial



The Care of the Mouth

THE mouth is the portal to the digestive system. There is no part of the body, when improperly cared for, that can become more foul and filthy. How some are able to pass food through an ill-kept mouth to the stomach day after day, is marvellous. Some let their mouths get into this condition because they are not aware how untidy this part of the body may become; while others, although they know better, become careless in the matter and harden themselves to this state of affairs.

Food particles, especially where meat is eaten, collect between the teeth and decay. This makes a good medium for the growth of disease germs. The teeth themselves are eventually attacked by the germs and this causes the decay of the teeth. Large cavities form in the teeth and toothache is the result. Once the process is started the individual soon becomes toothless. This finally leads to indigestion because the food is not thoroughly chewed.

At times the germs growing in the mouth cause quite serious local results. They work in under the gums and by multiplying form a considerable amount of pus, this being absorbed into the system and causing various constitutional disturbances. This is a very annoying condition and yields stubbornly to treatment.

The crust, the particles of which are precipitated from the saliva, forms a layer over the teeth more readily when they are not cleansed daily. This formation on the teeth makes them appear very unsightly.

A mouth in which the teeth are covered with a coating of tartar, the pus oozing

out from the gums, in which are located putrefying material, does not make a very pleasing appearance.

If the mouth is properly taken care of, a great many local diseases of the tongue and mucous membrane of the cheeks are avoided. Ulcers, cankers, and fissures of the mouth are due to a lack of cleanliness of this part of the body.

We are becoming more and more convinced that the mouth is a great avenue of disease and cause of systematic infections. The back-part of the mouth or throat, especially the tonsil, is noted for this. It is by this route that rheumatism enters the system, and oftentimes tuberculosis. The germs of these diseases are taken into the mouth where they lodge upon the tonsil and are taken into the blood current which distributes the germs to various parts of the body.

Let us now consider what we may term the care of the mouth. The teeth should be picked with a tooth-pick thoroughly after every meal to remove the food particles from between them. Then they should be washed with a tooth brush and some antiseptic solution. Once a day a powder should be used to remove accumulations upon the teeth. Baking soda, although not very pleasant to the taste fulfils the purpose of a tooth powder very well. It corrects the acidity of the mouth and leaves it agreeable and sweet. A good antiseptic to use with the tooth brush and as a gargle is the following:—

Acid Benzoic	gr. 64.
Pulv. Sodii Borat.	„ 64.
Acid Borac.	„ 128.
Thymol	„ 20.
Eucalyptol	m. 5.

Ol. Gaultheriae	m.	5.
.. Menthae Pep.	"	3.
Ol Thyme	"	1.
Spt. Vini rect.	oz.	III.
Aquae Distillat. g. s. ad.	oz.	XVI.

m. et sig.—Mix and filter and colour with fluid extract of hydrastis.

This diluted twice with water makes a very efficient and pleasant antiseptic to use with the tooth brush and as a gargle. Another efficient antiseptic, but not so pleasant, is permanganate of potash in the shape of Condy's fluid, a teaspoonful to a tumbler of water.

There is a right and a wrong way of brushing the teeth with a brush. To brush the teeth cross ways as some do does not get in between the teeth well. The proper way to brush the teeth is up and down and not from side to side on the teeth.

The toothbrush as commonly used is a very unhygienic affair. It is used over and over again and afterward put away in a bottle or other receptacle where the air and sunlight are excluded; a fine place for the germs which have been collected on it to grow. The next time it is wanted for use it is introduced into the mouth with all the germs. And thus the process of hatching germs and introducing them into the mouth goes on throughout the life of the brush. The brush to be kept in a clean, sterile condition should be kept in an antiseptic solution. A two percent solution of carbolic acid or formaldehyde would meet the need. The method used by some Indians is more wholesome than the common way of using the tooth brush. He cuts himself a clean stick each time that he cleans his teeth.

One should go to a dentist at least once a year and have his teeth given an examination. Some teeth have a faculty for decaying in the centre while the outside is merely a crust or shell. The dentist will be able to discover such conditions. If attention is not given the diseased tooth often becomes so bad that it cannot be saved and must be pulled. The teeth should not be needlessly sacrificed as when the perma-

nent set is gone nature will provide no more. A false set of teeth is a poor excuse for the set that nature has furnished us. Therefore cavities in the teeth should be attended to at the earliest possible moment. This will save the teeth for years as well as avoid much suffering and pain. If there are no cavities the teeth should be relieved of tartar and thoroughly cleaned.

Attention to the above points will preserve a set of teeth for years that otherwise would end in early decay, leaving the individual with a long history of extreme suffering from toothache intervening.

DOES THE MOTHER'S MILK AGREE?

(Concluded from Page 212)

upon as contra-indications to nursing the baby. Usually the monthly flow does not return until the mother stops nursing her child. Still there are exceptions to this. If it does return during the nursing period the mother ought not be in too great a hurry to remove the baby from the breast. Menstruation may return but once during the entire period, and if it did happen to return regularly, the mother would have to decide which would do the most harm, to have the infant disturbed a few days in each month, or run chances in bringing it up on artificial food.

If pregnancy occurs during the nursing period we have a more serious problem to deal with. This is something that will have a constant effect upon the child, continuously affecting the digestive system, and also causing a great drain upon the vitality of the mother. But even then we should weigh the situation carefully and if both the mother and the child are suffering, give consideration to artificial feeding. The point is this, that the mother should not be constantly worried because the baby's digestion is disturbed.

It would be a very good plan for those who can afford it to have the mother's milk analyzed. This will give the necessary information as to whether the mother's milk is ever likely to agree with the infant. It is a subject that needs a large amount of careful thought and good judgment.

V. L. MANN, M. D.

The House We Live In

Our Digestive System

OUR systems are undergoing a constant waste and repair. Technically we call this process metabolism of the body. The human machine, like any other machine, gives off energy in doing work. That this work may be continued the body must be continually storing up energy by means of the food which we eat. The various foods as they grow are not ready for immediate transformation into energy and for this reason nature has provided a system in the body whose duty it is to prepare the various foods necessary for our use in a form that can be absorbed by the blood and carried to all the various cells of the body, thus keeping up the process of waste and repair. This system is called the digestive system.

Digestion is one of the most important functions performed in the human body and any existing trouble, or change in its regular work is sure to bring on disastrous results. This system consists of many different organs and is very complicated. For this reason it is subject to frequent disturbances. A person cannot continue from day to day suffering from disturbances of the stomach and intestines without materially affecting the whole constitution. So that long continued disturbance of the digestion is sure to be followed by disease and ultimately death.

THE ALIMENTARY TRACT:—Digestion takes place in a series of organs which manufacture juices that act upon the various foods we eat. Some of these organs are arranged along a hollow, cylindrical tube about thirty feet long and extending from the mouth to the rectum. This tube is not straight but makes a number of turns and coils and the canal is intercept-

ed by many little doors and gates. These doors are arranged so that under normal conditions they open only in one direction, allowing the food to pass onward but keeping it from going backward. In the strictest sense these are not doors but little valves made of muscle with the power of contraction and constriction.

The other organs making up this system are located outside this tube but they are connected with it by what are called small canals or ducts. The organs forming the tube are the mouth, oesophagus, (gullet), stomach, and intestines. The organs located outside of the tube, but connected with it are the liver, gall bladder, pancreas, and salivary glands.

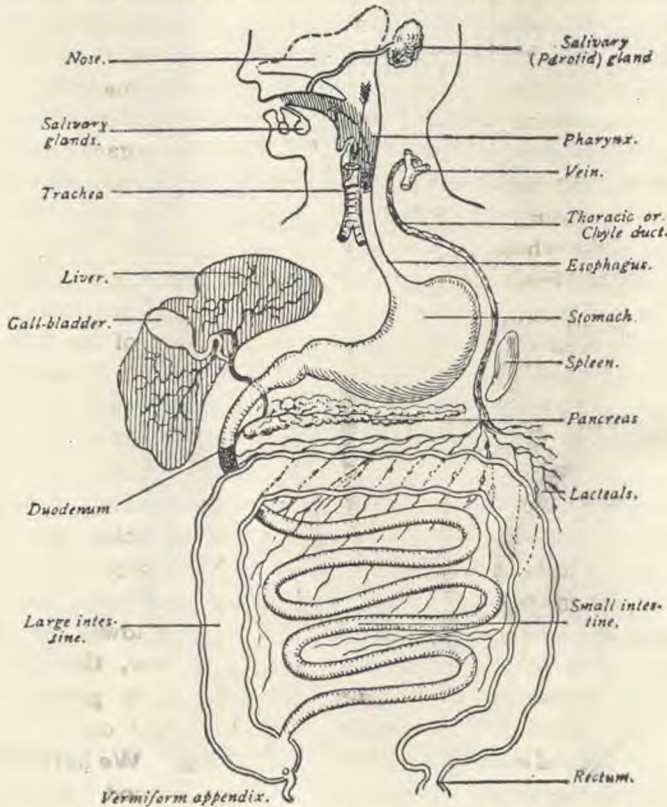
MASTICATION:—The first process of digestion is mastication. This is the chewing of the food which when eaten is too large to be acted upon by the various juices of the digestive system. So by the action of the teeth, tongue, cheeks, and the movable lower jaw upon the stationary upper jaw, the food is very finely divided. This process when not thoroughly carried out is the first cause of indigestion. We have heard of the term "bolting the food," meaning that the food is swallowed in chunks. This causes disturbances all along the line of digestion after leaving the mouth. Thorough mastication is one of the prime essentials of good digestion.

INSALIVATION:—This is the process of mixing the saliva with the food. The saliva is a colourless, viscid fluid that is secreted by three glands located underneath the lower jaw. These glands produce the saliva and by means of a little canal it is conveyed to the mouth. The

saliva plays an active part in the digestion of the food. It contains an active principle called "ptyalin" that acts upon starchy foods such as potatoes, bread, and rice. All starchy foods must be changed to sugar before they can be absorbed into the system. The ptyalin of the saliva has this power. All of the starch is not, however, changed into sugar in the mouth, but the intestines, concerning which we

about the sixth month of life. They are twenty in number. The permanent set, thirty-two in number, begin to appear about the sixth year and finish with the coming of the wisdom teeth about the twenty-fifth year.

A tooth consists of a crown, a neck, and a root, and is made up of a cavity around which is a layer of bone or dentine. Over this and on the outside is located the



Please preserve this picture as it will be referred to in future articles

will study a little later, play an important part in this same work. Saliva is caused to flow by the sight or smell of food, and under normal conditions about two and one half pints are secreted in one day.

THE TEETH:—We have two sets of teeth during the lifetime. We call them the temporary and the permanent sets. The temporary set puts in an appearance

enamel. This is the hardest substance in the body. It forms a most perfect covering to the tooth and avoids decay of the structure beneath. It is to preserve the enamel that we should take good care of our teeth. A nerve and a blood-vessel enter the cavity of the tooth and furnish it with nourishment. It is when these nerves are irritated that we suffer with toothache.



Meat Substitutes

GEORGE E. CORNFORTH

THE best meat substitutes are the nitrogenous foods which we have been considering in the last few articles, prepared in the simplest ways according to the recipes given in those articles, or, in the case of nuts, used in their natural state. I am not very enthusiastic in my recommendation of the mixtures which vegetarians make for meat substitutes, and call "roasts."

But perhaps people do get tired of the simplest things served in the simplest way, and for the benefit of any who may wish something different occasionally, we will give recipes for a few of the least formidable of these mixtures.

I do not like the idea of giving meat names to any vegetable mixtures, because they do not taste like the meat after which they are named, and are a disappointment to those who expect them to have meat flavors. And, if we would not eat the meat, why should we try to imitate it? or why should we use names that would suggest the eating of it? Why not get entirely away from that barbarianism in thought as well as in act? For meat is really a poor substitute for the foods which nature supplies us at first hand.

I could give recipes for nut foods that are very close imitations of the foods that are made by the health food factories, but it is so much bother to make them, and they require so long cooking, that probably few if any of my readers would care to try making them. There is one simple recipe that some might like to try, which might be called—

Nut Cheese

- 1 cup peanut butter
- 2 cups water
- $\frac{1}{2}$ cup flour
- $\frac{3}{4}$ teaspoonful salt

Stir the nut butter smooth with the water, adding the water a little at a time; stir in the flour and salt; put into a tin can that has a tightly fitting cover, and steam from three to five hours. Or it may be cooked by putting the filled can into a kettle which contains boiling water to one half the height of the can, covering the kettle, and cooking the required length of time, adding boiling water as may be necessary.

When cold, this is ready for use. It may be eaten like cheese, or may be broiled, or baked in tomato, or cut into dice and stewed, or stewed with peas, adding a little chopped mint, or may be made into hash with potato, or used in salads or in making sandwich filling.

Another nut food, which more nearly resembles those made by the food factories, may be made if you can obtain raw peanut butter, or if you have a mill with which you can grind raw blanched peanuts into butter. The proportion of material used is—

- 1 cup raw peanut butter;
- 1 pt. water
- $\frac{1}{2}$ cup rice-flour or corn-flour
- 1 level teaspoonful salt

Combine the ingredients and cook according to directions in preceding recipe.

Walnut Timbales

- $\frac{3}{4}$ cup milk
- $\frac{1}{4}$ cup cream
- $\frac{1}{3}$ teaspoonful salt
- $\frac{1}{4}$ teaspoonful celery salt
- 1 egg, beaten
- 1 cup stale bread-crumbs

Mix ingredients well together, put into oiled timbale molds or cups, set in a pan of hot water, and bake till set. Serve with peas or with peas in cream sauce.

Golden Roast

- $2\frac{1}{2}$ cups split-pea purée
- 1 cup corn-meal mush

- 2 tablespoonfuls oil
- 1 tablespoonful browned flour
- 1 egg, beaten
- $\frac{1}{4}$ teaspoonful thyme
- $\frac{1}{2}$ teaspoonful sage
- $\frac{3}{4}$ teaspoonful salt

A large cup of split peas will be required to make the split-pea puree. Wash them, soak them overnight, stew slowly till tender and dry, then rub through a colander. Left-over well-cooked corn-meal mush may be used. Combine the ingredients, put into an oiled bread tin, and bake three-fourths hour. Serve with—

Bread Sauce

- $\frac{1}{4}$ cup dried bread-crumbs
- 1 tablespoonful toasted bread-crumbs
- 1 pt. milk
- $\frac{1}{2}$ onion, sliced
- $\frac{1}{2}$ teaspoonful salt

Steep the onion in the milk in a double boiler for twenty minutes, remove the onion, add crumbs and salt, and cook till thickened. If it becomes too thick, add a little more milk.

Walnut Croquettes

- $\frac{1}{2}$ cup chopped walnuts
- $\frac{1}{2}$ cup mashed potato
- $\frac{1}{2}$ cup fresh bread-crumbs (that is, not so stale as to be dried)
- 2 tablespoonfuls water
- 1 egg, white and yolk beaten separately
- $\frac{3}{4}$ teaspoonful salt

Combine ingredients, folding stiffly beaten white in last. Form into croquettes with the hands. Dip in beaten egg (1 egg and 1 tablespoonful water beaten together), roll in zwieback-crumbs; or shape in a croquette mold. Bake in a hot oven fifteen minutes. Serve with peas or with tomato sauce or olive sauce, recipes for which have been given in preceding articles.

Walnut Loaf

- 1 cup milk
- $\frac{1}{4}$ cup flour
- $\frac{1}{2}$ teaspoonful salt
- 1 cup stale bread-crumbs
- 1 cup chopped walnuts
- 1 beaten egg

Stir the flour smooth with part of the milk. Heat the rest of the milk to boiling, and stir into it the flour mixture. Cook till thick. Add to this the remaining ingredients, put into an oiled bread tin, and bake one-half hour. Serve with—

Brown Gravy

- $\frac{1}{2}$ cup flour
- $\frac{1}{4}$ cup vegetable oil
- Boiling water
- Salt

Cook the flour in the oil, stirring to prevent scorching, till flour is lightly browned. Add sufficient boiling water, stirring vigorously with a batter whip, to make of the proper consistency for gravy. Cook five minutes. Salt to taste.

Asparagus Sauce

- 1 pt. liquid, part milk, and part water in which asparagus was cooked
- $\frac{1}{4}$ cup flour
- 2 tablespoonfuls oil
- $\frac{1}{2}$ teaspoonful salt
- Asparagus tips

Stir flour smooth with part of the milk. Heat remainder of the milk and water to boiling, stir flour mixture into it, and cook till thickened. Add oil, salt, and some asparagus tips cut into small pieces.

Lentil and Rice Cakes

- 1 cup dry lentil puree
- 1 cup boiled rice
- 1 small onion, chopped very fine and cooked in a little oil
- $\frac{1}{2}$ teaspoonful salt

Combine ingredients, and form into flat cakes. Put these onto an oiled pan, and bake ten minutes in a hot oven. The onion may be omitted. Serve with—

Hygienic Chilli Sauce

- 1 qt. canned tomatoes or the same quantity of fresh tomatoes
- 2 large onions, finely chopped
- $\frac{1}{2}$ teaspoonful sugar
- $\frac{1}{2}$ teaspoonful celery salt
- $\frac{1}{2}$ teaspoonful salt
- $\frac{1}{2}$ cup lemon-juice
- Rind of $\frac{1}{4}$ lemon

Mix all the ingredients except the lemon-juice, then cook slowly till reduced one half. Cool, add the lemon-juice, and it is ready to serve. This may be put through a fine colander, and will then be more like catsup.

In the season of fresh tomatoes it is sometimes convenient to make—

Raw Chilli Sauce

- 1 cup peeled ripe tomatoes, chopped
 - $\frac{1}{2}$ small onion, chopped fine
 - $\frac{1}{4}$ cucumber, chopped
 - 1 very small stalk celery, chopped fine
 - 1 teaspoonful sugar
 - $\frac{1}{4}$ teaspoonful salt
 - $\frac{1}{4}$ cup lemon-juice
- Mix ingredients and it is ready to serve.

: Mother and Child :

What is Meant by Eugenics?

THE word "eugenics," my dear, is derived from two Greek words, meaning "good" and "birth," or "beginning." Our familiar name Eugene comes from the same source and means, literally, "well-born" or "well begun." A learned man has defined eugenics as "the science of the improvement of the human race by better breeding." He might have added that it is the science which recognizes mankind as equal in value to the beasts of the field; for if people generally exercised as much care about mating human beings as they do about mating the right live stock to produce a horse with speed and endurance, or a blue-ribbon dairy cow, or a hen that lays two eggs to every other hen's one, our race would be assured of a brilliant future.

Some such thought passed my mind as I listened to the testimony of Peter Walters the other day, in his uncle's will case. When they asked him the age of his daughter, Julia, who went to the bad, he had to stop and figure it out by recalling that she was born three days after his famous Holstein heifer, Bossie Blanket, and there was a record of that event in his herdbook. Think of it—a calf so much more important than a girl that its birth was worth recording, while the girl's wasn't! Why? Because, in order to get that particular kind of a calf, Peter had carefully selected both father and mother for it. He always has taken immense pride in his success as a cattle-breeder, whereas in his capacity as a raiser of a family he has gone ahead blindly.

A FALSE CONCEPTION OF PROPRIETY

Oh, yes, there are a lot of sentimental people who object to treating the human

race as if it were governed by any of the same natural laws that govern the lower animals. They consider it indelicate, or even irreligious. Their theory of life is that the Creator planted in us certain impulses, to which we should yield with becoming reverence for His omniscience, and trust Him to see us through whatever may follow; and that we had better not attempt to unravel, or regulate, the mysteries which He has seen fit to hide from our imperfect vision. Why, one might as well argue that because the Almighty fashioned my head and face as He pleased it is impious for me to shave or have my hair cut! It seems to me that whatever has been given us by Providence was given us, not to let run to waste, but to improve; otherwise the parable of the talents is meaningless. The sincerely reverent course toward the human race is to do all in our power to make it the success it deserves to be.

The scientists are devoting a great deal of time and hard work to this subject. Long before Luther Burbank appeared on the scene there were agricultural experimenters who used to try the effect of mixing the seeds of certain related plants, or fertilizing the flowers of one variety with the pollen from another, or splicing two bulbs, to discover what sort of results would flow from such unions. Grafting and budding, which involve in a measure the same principles, date back to a still earlier period. But of late years there has been a systematic effort to extend such experiments to the animal world and keep accurate scientific notes of them. Birds of one plumage have been mated with birds of another; guinea pigs and

rabbits marked in certain colours have been mated with others decidedly different; and through these and similar tests we have caught a glimpse of the rules which Nature always follows in handing down certain peculiarities.

On the same lines observations of the human race have got to a point where if a very blond man marries a very brunette woman we can foretell that their children will be divided equally between light and dark, though hair which starts light in infancy may darken somewhat later in life.

We have learned, also, that marriage rarely occurs between a man and a woman both of whom have red hair; that two blue-eyed parents never produce a brown-eyed child; and several similar facts regarding personal appearance.

WHAT FAMILY HISTORIES SHOW

But our modern scientists have gone deeper than this. They have taken pains to obtain the family histories of persons showing marked characteristics of body, mind, temperament, morals, etc. Some of the facts are easy to ascertain, as they are known to a whole community. In King's Corners, for example, every one knows that Silas Taylor's great-grandfather was a British soldier who came to this country in a spirit of adventure, but settled down and became a most prosperous farmer; that his grandfather kept a store as well as ran a farm, and lived to be 103 years old, retaining most of his faculties to the end; that his father sold the farm but kept the store, and built up a thrifty note-shaving business on the side, and was famous for his feats of strength. The wives of these men were all women of much force of character and smart housekeepers. When you look at Silas you see the business shrewdness, the strong will and the splendid health which he inherited along with the money accumulated by his ancestors, and you don't

wonder at the combination as a stranger might.

Besides these facts obvious on the surface the scientists are collecting confidentially a mass of information of the kind families usually do not talk much about to outsiders: like the private habits, whether steady or dissipated, of various relatives in past generations, the suggestions of possible insanity which may have cropped out here or there in the line of descent; the physical ailments to which a family has been most subject, whether resulting fatally or not.

HEREDITARY PHYSICAL DEFECTS

This research into the transmission of bodily defects has shaken some of our most cherished ideas about the treatment of children who suffer from them. I have often heard our neighbours discuss the course the Widow Deering took with Sarah, the foundling she adopted out of pity, only to discover a few months later that the child was a deaf mute. Mrs. Deering put Sarah in school in the village, and would have kept her there in spite of the difficulty the teacher had in making her understand what the other pupils were doing; but the neighbours talked the old lady into sending her to an asylum for the deaf and dumb. This struck everybody as a fine scheme; but was it? Sarah's only companions from that day forward were boys and girls similarly afflicted; and one of the boys, after learning a trade and getting a start at a livelihood, came back and claimed her in marriage. The last I heard of them they had four children, all deaf mutes.

According to most students of eugenics with whom I have talked the wise course in Sarah's case would have been to continue her in the company of normal playmates; then, if marriage had resulted from such companionship, some of the children born of that marriage would have been normal; and by bringing up the others in

the companionship of normal children, and treating their children in turn in like manner, there would have been a good chance for the gradual weeding out of the family infirmity by repeated mixtures of normal blood with that which carried the taint.

Weaknesses of sight, skin disease, insanity, feeble-mindedness, rheumatism,

gout, and a score of other misfortunes you see illustrated every day in persons with whom you come into contact, are transmittable in the way I have indicated. Tuberculosis used to be deemed hereditary in the same sense, but is so no longer, I believe, though a predisposition, or susceptibility, to the trouble can be handed down.—*Ladies' Home Journal*.

Does the Mother's Milk Agree?

EVERYONE who has paid especial attention to infant feeding admits that the mother's milk is the proper thing to feed the child. There are various reasons for this, but we will sum them up by saying that as soon as the child is taken away from the breast and given artificial food the death rate among infants is materially increased. This being the case, we should do all in our power to encourage the infant in obtaining its food from the normal source. If the milk of the mother seems to disagree, the matter ought to be thoroughly looked into, and wrongs if there are any, should be righted. There are times when maternal nursing is not justifiable. There are instances where the mother may do her child a great amount of harm by religiously keeping it at the breast, yet on the other hand the mother would not be justified on the first and slightest provocation in taking the infant from the breast.

There are certain conditions affecting the mother that have a tendency to disturb the milk secretion of the mammary glands. Some of these conditions can be remedied and others cannot. But let us become acquainted with those things that are a factor in causing the milk to disagree with the baby and make them right if possible. Diet, exercise, worry, and drugs are factors that cause disturbances in the nursing of the infant and can be readily overcome. Diet has already

been considered in a previous article.

Exercise is so important in maintaining an equilibrium in the milk secretion of the mother that she should be encouraged to get out of bed and to walk about the room as soon after child-birth as is possible without physical injury. Regular hours for exercise such as walking should be insisted upon. But this should not be carried to the point of fatigue as this would do as much harm as the lack of exercise.

Worry, although hard to combat, is something that can be overcome. When the mother realizes that fretting and keeping the mind in a constant turmoil will make her milk totally unfit for the consumption of the baby, she should put herself under conditions favourable to a calm mental equilibrium. This will bring pleasure to her as well as to her infant.

Where the milk is disagreeing with the baby, the mother should keep in mind the drugs she may be taking, as certain drugs when taken into the system of the mother are given to the child through the milk and cause serious disturbances. Even death has been known to occur through drugs taken into the infant system through the mother's milk. Arsenic, antimony, lead, iodine of potash, mercury, colchicum, and morphine may cause serious disturbance in the infant by making the milk unfit for use.

Menstruation and pregnancy are looked
(Concluded on Page 205)

Current Comment

BOILED MILK

THE British local government board has published a report on "The Value of Boiled Milk as a Food for Infants and Young Animals." The experimental work was conducted by Dr. Janet Lane Clayton, who by previous experience and attainment is eminently fitted to prepare an authoritative and unprejudiced document.

The report shows, among other things, that when a young animal is fed successfully on the milk of an animal of another species, it makes no difference whether the milk is boiled or not, or if there is a difference it is in favour of the boiled milk. It does make a difference whether the milk comes from an animal of the same or another species. Infants fed on milk drawn from wet-nurses, boiled, thrive as well as those fed on raw milk.

There is one serious criticism made to the report; namely, that the condition of the infant was determined largely by the scales. As a matter of fact, whenever infants on ordinary foods show a remarkable gain in weight, they are not by any means in an ideal condition.

In view of the fact that even in connection with certified dairies we have had very serious epidemics, it is refreshing to know that so small a matter as boiling makes milk comparatively harmless; and that it is not so scurvy-producing as has been asserted by some advocates of the raw milk diet. If we could be certain that the boiling of milk did not endanger its nutritive properties, it would certainly be an advantage, because tuberculosis, typhoid fever, and other dangerous diseases may often be prevented by the boiling of milk.—*Life and Health*.

EYE STRAIN

No other human organ, except possibly the heart, is called on for such hard and continuous activity as is the eye.

The eye has, to be sure, a most marvellous strength. As long as its mechanism

remains measurably correct, it seldom or never gives out. And its vitality is supreme. But when to the strain of near work in artificial light are added defects in its own mechanism, even this wonderfully adaptable and hardy servant gives symptoms of strain.

The brain is generally our first informer. It automatically supplies the energy that flogs the lens muscle to its ceaseless task, and it is in the closest possible sympathy with the retina, the sensitive plate on which all vision is recorded. The brain declares its exhaustion in headache and vertigo. The masterful eye, so to speak, shunts off its suffering upon the nearest neighbour. Yet in many cases even the brain gives no direct symptom. It is the central organ, the highly vital and complex master of the entire system, and it also has a superior way of passing on the kick. Just how it does this, oculists do not profess to know. The rule seems to be that eye strain declares itself first in the organ which is nearest and weakest. The stomach, the liver, the intestines, the kidney, the heart, or the membranes of nose and throat may develop symptoms while the eye and the brain seem normal.—*The Metropolitan*, May, 1912.

BRITISH INQUIRY INTO THE PATENT MEDICINE BUSINESS

A SELECT committee has been appointed to inquire into the sale of nostrums in England. Evidently this has caused alarm on the part of patent medicine men because the owners of Proprietary Articles section of the London Chamber of Commerce has sent out a protesting document to the press. Inasmuch as the wealthier of the patent medicine firms advertise to an enormous extent in the newspapers, we may naturally expect that nothing startling regarding the nostrum business will filter down to the common people through the medium of the press. We hope this committee will lay bare the truth in connection with this subject. We also hope that its influence will be felt in India as

she needs it very much. We wish a committee of this kind might be appointed in India if they would go into the nostrum

business and bring out the truth with an unbiased mind like it is being done across the Atlantic.

- Physical Culture -

Exercise for Neurasthenia

1. Stand erect, feet together, head thrown back, with the hands hanging loosely at the sides. Raise the arms with the hands open upwards and outwards behind the back, the while taking in a deep breath through the nostrils, filling the lower lobes of the lungs first and so gradually upwards. The arms should not be raised too quickly, but should be fully extended above the head just as the lungs are extended to their utmost capacity. Then bring the hands down the front of the body, completing the circular movement and exhaling the while, by first drawing the abdomen and so forcing the air upward and the chest outwards as the breath is finally expelled. Repeat 20 or 30 times.

2. Stand first fully erect, with heels together and toes apart, the hands being crossed. Swing the arms outwards and upwards, breathing in deeply the while as before. As they reach their full extension pause a while, retaining the breath, then stoop right down sweeping the arms forward, reaching out well to the front without bending your knees, exhaling rapidly as you bend over. Return to first position and repeat twenty times.

3. Dumb bells needed; Stand with feet slightly apart, bending slightly forward from the hips, the hands holding the bells pushed out fully to the front and slightly above the level of the shoulders. Then bring the arms back to the sides, thrusting the chest forward and inhaling fully as

you do so. Bring your body as far forward as you can and inhale fully without bending your legs, and then return to the first position breathing out rapidly as your arms come up. You will find that your leg muscles, especially those at the back of your calves and thighs will be benefitted by these movements which should be repeated twenty or thirty times.

4. Stand erect with feet about twelve inches apart and almost at right angles to each other, the arms bent with the elbows parallel to the shoulders and the open hands brought back so that the thumbs rest lightly against the chest. Swing the trunk of the body around without changing the position of the feet. Then smartly strike the arms out in a line with the shoulders to full stretch, returning to first position. Repeat twenty or thirty times.

5. Stand erect with the arms bent at the sides and the tips of the fingers touching the shoulders, the heels being close together and the toes turned outwards. From this position sink right down by bending the knees outwards, rising on the toes as high as possible. Steady yourself, fling out arms above the head and rise to the first position, when the arms should again be bent so that the fingers rest on the shoulders and the exercise repeated fifteen to twenty-five times. This exercise may be a little hard at first but should be persevered in till you can do it easily.—A. Wallace Jones.

: In the Absence of the Doctor :

EARACHE

Earache is often due to serious disease of the middle ear and needs the attention of the doctor. To stop the pain till help can be obtained we give the following prescription. The old custom of using oils in the ear is not a good one. This oil is hard to wash out and it becomes rancid, making the ear very dirty.

Chloral Hydrati	grn. X.
Camphorae	grn. VIII.
Acidi Carbolici	grn. V.
Glycerine	fl oz IV.

m. et sig. Wash the ear out with sterile water as hot as can be borne upon the back of the hand. This can be done with a syringe using gentle pressure. Then instil a few drops of the above preparation into the ear, warm.

Four or five good thick fomentations put upon the ear will oftentimes relieve the pain.

NOSE BLEED

- (1) Head held erect, standing posture unless too weak.
- (2) Ice to back of neck.
- (3) Press upper lip against the teeth.
- (4) Pinch the nostrils together.
- (5) Hot foot and leg bath.
- (6) Avoid blowing the nose.
- (7) Hands and arms extended above the head.
- (8) Hot nasal douche as hot as can be borne.
- (9) Solution of "adrenalin," 1 to 1000 sprayed into the nose.
- (10) Cauterize the bleeding vessel.
- (11) Plug the nostril with $\frac{1}{4}$ in. gauze and absorbent cotton back and front.

The last two items will have to be done either by a physician or trained attendant.

Question and Answers

Treatment for Obesity.—T. N. C.

The patient should eat just enough and no more than to satisfy hunger. The diet should be dry and thoroughly masticated. Zwieback, granose biscuit, and flakes are good and can be obtained from 75 Park Street, Calcutta. Other foods as peas, beans, lentils, dhal in small quantities, cabbage, lettuce, spinach, tomatoes, celery, green peas and beans, eggs in limited quantities, skimmed milk, and buttermilk. Avoid potatoes, rice, whole milk, cream, butter, and other fats, also sweets. Take two hours or so of exercise every day in the open air. Keep the bowels free. Avoid patent medicines advertised for the purpose of reducing flesh.

Diet for Hyperacidity of the Stomach.—J. C. R.

Avoid meats of all sorts, oysters, fowl, game, meat juices, beef tea, as they cause an excess of uric acid. Coarse vegetables must

generally be avoided. Small quantities of cauliflower, tender asparagus roots, and green peas, eggs in limited quantities in the form of eggnog, poached and in custards without sugar may be used. Whole milk generally agrees very well. Prunes, figs and dates are good in the form of purees. Peptonized milk or junket with cereals well cooked for a couple of hours also agree well. Browned cereals rest well on the stomach. These are zwieback, granose, granola, and browned rice. Avoid mushes, hot breads, rich pastries, condiments, spices, alcohol, tea, coffee, tobacco, and fried foods.

What is the difference between bread toasted brown and the much praised zwieback?

Bread as ordinarily toasted is like new bread, it becomes doughy and soggy in nature. All starches taken into the system must be changed into sugar before absorp-

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The Publishers.

ALCOHOL AND CRIMINALITY

BAVARIA has collected statistics of the cases in which violations of law in 1910 were due to intoxication or to the habitual use of alcohol. In 8,864 of these the cause could be directly traced to alcohol, and in 190 of them the offenders were chronic drunks. The crimes of drunkards were found in the large proportion of cases to consist of dangerous bodily injury. Nearly half the crimes committed by drunkards were of this kind. On the other hand, the number of convictions for stealing by those under the influence of alcohol was surprisingly small.

TYPHOID FEVER DUE TO FRIED FISH

As a result of an exhaustive inquiry, Dr. Hamer, health officer of the London County Council, has traced an outbreak of typhoid fever to the consumption of fried fish. The evidence points to the delivery of a consignment of infected fish on August 17 or 18 last. The deliveries in London on these dates were in some instances from unusual sources, owing to dislocation of the traffic caused by the strike. In concluding, Dr. Hamer states: "This outbreak adds another instance to the now growing list of outbreaks in which inquiry failed to show any other explanation than the consumption of fried fish."

WHOLESALE POISONING IN A MILITARY SCHOOL

A FEW days ago 187 men in a school for non-commissioned officers at Potsdam took sick within twenty-four hours with a febrile gastro-intestinal effection. The germ of meat poisoning was detected in the stools. The suspicion that the disease was occasioned by partaking of dinner was thus confirmed. The course of the disease was favourable in all cases. After a few days the patients could leave their beds.

ENFORCEMENT OF VACCINATION LAWS IN CANADA

THE provincial board of health of Quebec has determined to take legal action to recover from the town of Beauport the fine of \$25 a day, provided for by law, for its neglect to enforce the by-law regarding compulsory vaccination.

Suicide by Quinine.—A despondent New Jersey young woman took ninety-four two-grain pills of quinine—and died.

QUESTION AND ANSWERS

(Concluded from Page 215)

tion can take place. The browning of bread and rice all the way through brings about a step toward the change, it changes the starch into dextrine. This is what takes place in the making of zweiback. It lessens the work of the digestive organs.

Would the Free Use of Peas, Beans, Lentils and Dhal Cause Excess of Uric Acid?

If there is a disturbance in metabolism, those articles in excess are liable to cause greater amounts of uric acid. The tendency is for those specializing in dietetics to advocate a low protein diet. Protein is the principle element constituting these foods.

Can Saccharin be Used in place of Sugar with Safety?

A committee was appointed in the United States to inquire into the use of saccharin instead of sugar in preserves by manufacturers. The verdict of this committee was that it was harmful to the system even in small quantities. It also recommended the government under the Pure Food and Drugs Act to do away with saccharin in food because of its harmful effects upon the system.

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