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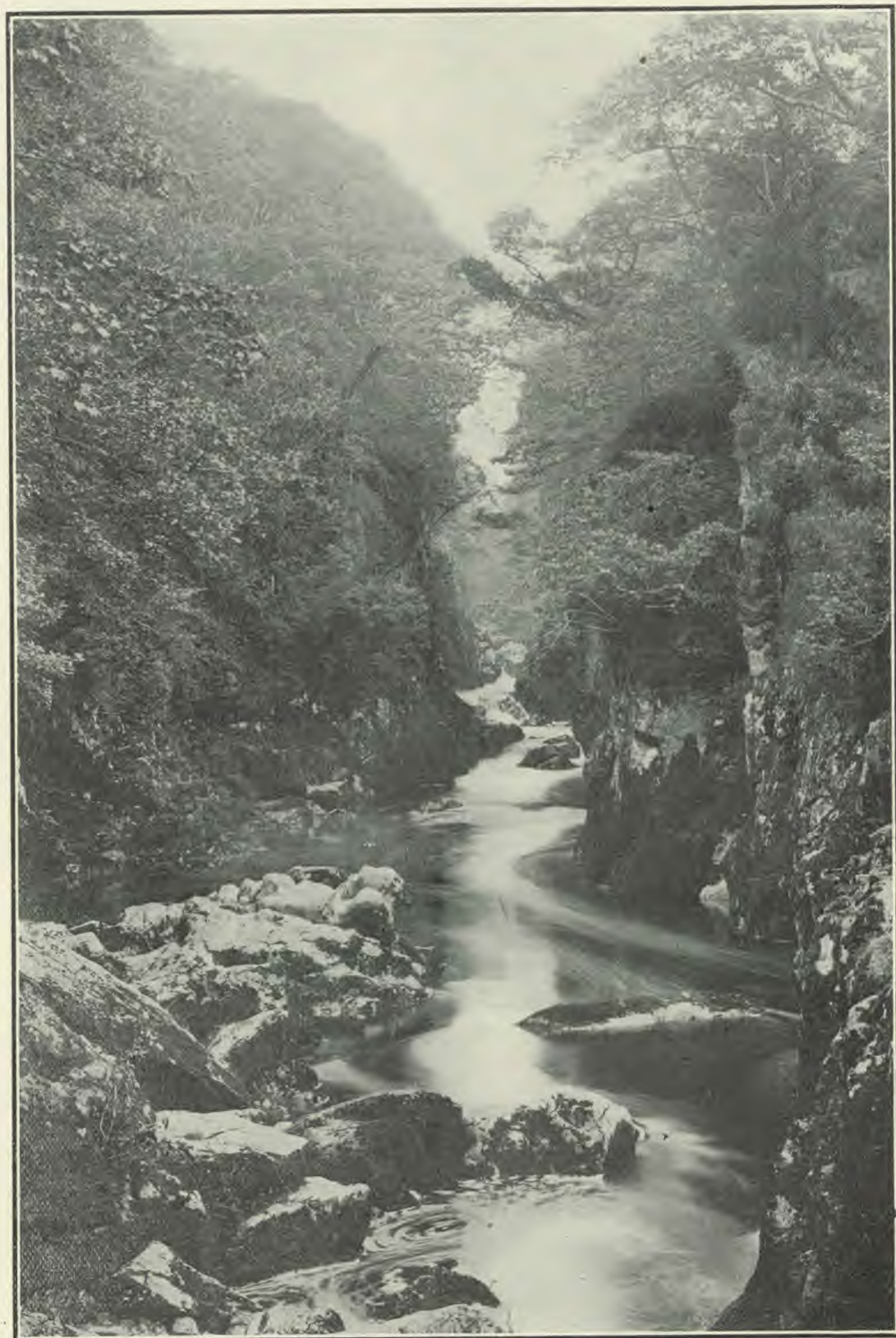
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George Henry Heald, M. D., Editor

## INFANTILE PARALYSIS

This disease, which is often fatal, and which leaves ninety per cent of those who recover paralyzed for life, is assuming the nature of a grave epidemic in various parts of the country. In the city of Los Angeles a special committee has been appointed to combat the disease. This committee has formulated the following rules, which should be carefully heeded in all localities where there are cases of the disease:—

1. Avoid having children come together, as in picnics, parties, and the like.

❦

2. Keep children at home. Allow them plenty of fresh air and sunshine.

❦

3. Keep yards clean and free from every bit of decaying vegetable or animal matter.

❦

4. Keep the premises watered to lay the dust.

❦

5. Keep the intestinal canals of the children active (almost all infected cases are constipated). Give simple, well-cooked, easily digested food, and plenty of pure water between meals.

❦

6. Cleanliness of children and houses is important. All fruits and vegetables should be cleaned before eating.

7. Flies should be destroyed, as they carry dirt. Windows and doors should be screened. A good fly-killer is a few drops of formaldehyd in a saucer of water. Flies must drink, and this drink will kill them.

❦

8. Children should not be allowed to become exhausted or overtired. This is especially true of those convalescing from the disease.

❦

9. Children who have been infected should be made to rest. This is important, and should be insisted upon as long as there is any pain in the joints or muscles.

❦

10. Report every sick child to the health department. This is important. The services of physicians and attendants are offered free.

Before this issue will have reached our readers, the greatest hygienic congress ever held in America will be in the past. In the next and succeeding issues, we are planning to give our readers some of the good things of this great congress, the Fifteenth International Congress on Hygiene and Demography, Washington, Sept. 23 to 28.

## SOME ANTECEDENTS OF TOOTH DECAY

D. H. Kress, M. D.

**F**OR years I had an excellent opportunity, both in my practise and in my travels in various countries, to observe carefully the dietetic habits of the people as related to the diseases prevalent among them. Dental decay I have found to a greater extent in New Zealand and Australia, where meat is freely used, than in other countries in the world. Shortly after my arrival in Australia, I administered an anesthetic to a girl of sixteen, the dentist having found it necessary to extract every tooth. Upon inquiry, I ascertained that her sister, four years older, also had a full set of artificial teeth.

While tooth decay is common in Australia and New Zealand, among some of the native races of the South Sea islands it is quite uncommon. While in Fiji, I had an interview with the chief of Sueva, who called my attention to the sugar-cane. With

his teeth he vigorously tore off the husks. I noticed his pearly teeth, and said to him, "You have remarkably fine teeth." He then opened his mouth wide, and I found that he had all his teeth, and that every tooth was perfect, although he was a man fifty-four years of age. The dinner I had with him was composed of bread, fruits, bananas, oranges, and yams.

In England and the United States tooth decay also prevails to an alarming extent

among schoolchildren. Probably eighty-five per cent of them have defective teeth. Tooth decay, I have found, is common in every country where meat and white bread form the staple articles of diet. In countries where meat is seldom used, and grains, fruits, and vegetables form the staple articles of food, tooth decay is comparatively rare. In Australia, among the nurses and patients at the Sydney Sanitarium, numbering seventy-three in all, I found only two who possessed all their teeth in a well-preserved state, and these two had been life-long vegetarians.

### Diet and Dental Decay

There can be no doubt in the mind of any one who makes a careful study of this subject that the prevalent use of flesh foods is both directly and indirectly responsible for a large proportion of the dental decay in all civilized lands. Little

---

particles of meat lodge between the teeth, and encourage the growth of germs. The germs that cause decay of flesh also cause tooth decay. The sound teeth of our ancestors may be attributed to the fact that their habits and food were of such a nature as to build up healthy bone structures. The Japanese and Chinese, who live largely upon rice and other grains and fruits, give us a remarkable example of constitutional preservation of sound teeth. The absurdity of the theory that

Tooth decay is remarkably prevalent in Australia, New Zealand, England, and the United States, the countries that have the heaviest meat bills. Carnivorous animals do not lose their teeth, because they also eat the bones and blood, and thus get the bone- and tooth-forming elements, which are thrown away in serving the beefsteak.

Undoubtedly the eating of flesh is partly responsible for the large amount of dental decay in civilized peoples.

Dental decay exists because the bone-forming materials have been removed from the dietary.

Another food that has suffered this robbery is white flour. White-flour bread is thus also responsible to a certain extent for the prevalence of tooth decay.

If you can not be sure of the flour furnished by the mills, you can make it at home, according to directions given by Dr. Kress.



flesh food is necessary to supply the system with bone-making material is shown by Thoreau, in his reference to the farmer who, walking behind oxen that with vegetable-made bones jerk him and his lumbering plow along in spite of every obstruction, says, "You can not live on vegetable food only, for it lacks bone-making material."



Dr. Kress found the Fiji chief, whose dietary consisted largely of fruits, had a perfect set of teeth.

The prevalence of dental decay is not wholly due to the flesh lodging between the teeth and forming culture beds for bone-destroying germs, but chiefly to the fact that the flesh foods themselves are deficient in bone-forming elements. Beefsteak contains only the muscle-forming elements, the bone-forming elements being absent. It is the *quality* of the dental structure that is at fault. Teeth decay for the same reason that fruits decay. When fruit decays on the tree, we know that the tree is poorly nourished, or that some needed element is lacking in the soil. The intelligent gardener begins to dig around the tree, and adds to the soil the elements needed to nourish the tree.

#### No Bone Elements

Dental decay exists because the bone-forming elements are deficient in the food. To

tooth preservation than that used by man. It would be well for civilized man to study the dietetic habits of these creatures that so closely resemble man.

Dr. Winters says, "One of the most unfortunate consequences of an early and liberal meat diet is the loss of relish it

creates for the physiological foods of childhood,—milk, cereals, and vegetables." Meat, by its stimulating effect, produces a habit as surely as does alcohol, tea, or coffee, and a distaste for less satisfying foods. The foods which the meat-eating child eschews contain in large proportions certain mineral constituents which are essential to bodily nutrition and health, and without which the processes of fresh growth and development are stunted. "These mineral constituents," Dr. Winters goes on to say, "can



The monkey does not need to go through this process in order to preserve his teeth.

not be introduced into the system in an assimilable form except in organic combination with an albuminous molecule; and in such combination they are found in sufficient proportion to meet the child's needs *only* in certain vegetables, fruits, and cereals."

Dr. C. Rose, of Munich, in his examination of 7,364 pupils of the Friedburg schools, discovered that the best teeth and the least tooth decay were to be found in the districts that contained hard water, and in which the soil was rich in lime. In places where lime poverty existed in the soil, he discovered there were nearly twice as many bad teeth among the children.

Dr. Neisler also states that in a certain district where quantities of ground lime were strewn over feeding-places where the soil was poor in lime, the deer which fed upon the grass of such fields possessed finer horns than those which fed in fields that were not so treated.

The vegetable kingdom serves a useful purpose — it is capable of dissolving and appropriating these earthy salts, and organizing and vitalizing them, thus preparing them for man's use. In districts where soils and water are poor in lime, the grains, fruits, and vegetables are necessarily poor in organized salts, or bone-forming elements, and naturally one would expect dental decay to be more common in such districts; not, however, because of the absence of these salts in soil or water, but because of their consequent absence in food.

Dental decay is due to the absence of salts in the food. It does not matter whether the food is naturally deficient in the salts owing to a lack of earthy salts in the soil upon which the food is grown, or to the fact that they have been afterward removed by our modern process of milling.

#### Devitalized Flour

Dr. Bunge says: "It is remarkable that wherever we find a race of men retaining

primitive milling customs, or living on uncorrupted grain food, we find their teeth strong, and free from decay." Baron Liebig estimates that "whole-meal bread contains two hundred per cent more phosphates than white bread." America is supposed to have clever dentists. To the question why this is so, Dr. Lauder Brunton aptly replied, "Because she has the best flour-mill makers." It seems, the better the mills, the whiter and finer the flour, the poorer the bread; and, naturally, the worse the teeth, the better the dentists.

It is not necessary to depend upon our modern mills for this partially devitalized flour. Each family may purchase a hand-mill at a small cost, grind its own flour, and make its own cracked wheat for porridges, etc. Those who adopt this plan will be surprised to find a sweetness in the preparations and breads that is not present in those made of flour obtained from the grocer. A double purpose is served: not only do we obtain the needed salts, but the satisfaction imparted to the palate encourages longer retention of foods in the mouth, a more copious flow of saliva, and more thorough mastication. The maltose formed by the action of saliva upon the starch aids in dissolving the organized salts present in the breads. In the absence of maltose these salts, even if present, are imperfectly utilized. This is in part responsible for rickets and other bone deformities so prevalent in pap-fed children. The free use of mushes and other pastry foods produces lime starvation and favors tooth decay the same as does the pap. Thorough mastication not only encourages a freer circulation of nutrients to the gums and teeth, but the maltose formed makes it possible for the system to utilize the bone-forming elements the foods contain.

Unquestionably, the two important factors in teeth preservation are the presence of bone-forming elements in the food and thorough mastication.

# IS PHYSICAL CULTURE INCREASING THE STATURE OF THE JAPANESE?

Herbert M. Lome



HE power of physical culture to bring about changes for the better in the physical make-up, not only of the individual, but of a nation, has been strikingly shown by official figures that have recently been made public by the Japanese government.

Nearly twenty years ago, and when Nippon was in the full dawn of the day that the sun of Western ideas brought her, the comparatively small stature of the "little brown men" was one of the many facts toward which the attention of the authorities was directed in a characteristically painstaking manner. In the interval, and semiannually, government doctors, appointed for the purpose, have been at work taking measurements of such portions of the younger male population as enabled them to strike a general average of the physical equipment of over a million.

## Japanese Stature Now Increasing

It is now stated that within the period named there has been an average increase in the height of Japanese youths of three eighths of an inch, and nearly one and one third of an inch in chest measurements, with corresponding enlargements of other portions of the body. All of these changes for the better are, according to the official reports, due to the exercises, athletics, and instruction in hygiene that are in vogue in the schools, both civil and military. It is added that there has been a marked improvement in the stature, bearing, and strength of the soldiers of the army of the mikado.

Nevertheless, the authorities are not satisfied with these results. They want the nation to be on a par with the people of the great powers in the matter of stature. So they are making exhaustive inquiry to the end of finding the cause and a remedy for such bodily defects as are peculiar to the nation. It is safe to add that the national trait of thoroughness has hardly ever been more in

evidence than in connection with her current effort to increase the inches of her men.

## Cause of Short Legs

The typical underdevelopment of the lower limbs of the nation is ascribed by many Japanese investigators to a somewhat curious cause. Apart from those engaged in forms of industry that call for more or less muscular activity, the average Japanese performs his daily work in a sitting position. Where the American or European would stand, the citizen of Nippon squats. Even when the latter is resting, he squats also. In a Japanese home where there are no chairs, the members of the family squat on their heels on the floor in the fashion of their ancestors from time immemorial.

The Japanese man of business, the member of a profession, shopkeepers, and employees maintain this position day after day, month after month, through the years. A merchant will squat the whole day through, not even rising to wait on a customer, for he keeps a boy who hands him the goods that the purchaser needs. What is true of the commercial classes, is equally true of the artisans and craftsmen who make up so large a proportion of the native population.

While the agricultural classes naturally show a greater degree of muscular development than do the dwellers in cities, yet the squatting habit affects them also. Besides that, much of their labor is too much on a line with that of beasts of burden to allow of their attaining a properly developed stature.

Now this squatting position, illustrated on the next page, not only causes atrophy of the leg muscles, but, to an extent, cuts off the circulation of blood in the limbs. The result is seen in the invariably short and not unusually shrunken legs that are the rule among the city folk of the land of Nippon.



The Japanese are raising the query whether their habitual position of squatting instead of sitting is one cause of their shortness of limb.

#### Is It Acquired or Hereditary?

On the other hand, there are Japanese physiologists of reputation who hold that the deficiency in Japanese stature is to be attributed to some inherent characteristic of the race rather than to any effect of habit or environment, although it is admitted that the latter may emphasize the original tendency. The disputants argue that while the Italians are, on the whole, shorter than any other European nation, no one would attempt to attribute such shortness to the domestic habits of the nation. Moreover, they say, ethnological history shows that some races are built on a smaller model than others.

However, these objectors are in the minority, and their theories are not popular. It is quite consistently Japanese to flout any belief that would ascribe a racial defect to any but a remedial cause. Nippon may be pessimistic in regard to matters of philosophy and religion, but when it comes to things material, it is in-

variably optimistic. It is so in this case.

So the Japanese savant, on the whole, believes that by taking thought, he can reverse the decree of Scripture, and add the longed-for cubit to his stature. Accordingly, the native physiologists who have given attention to the subject acquiesce in the prevailing opinion that the national lack of height is, in the majority of cases, the result of doing without chairs in the homes, and without desks and counters in the offices and stores. Some of the learned gentlemen also declare that want of bone-making material in the daily diet of the masses, and the way that babies are carried by their mothers, also contribute to the physical defect in question.

A superficial examination of the average Japanese physique will show that the trunk compares favorably with that of the average American in point of length and circumference. It is, as intimated, the legs that constitute the physical falling off of the Japanese. Sitting down,

there is little or no difference in the appearance of the two races. Standing up, however, the short legs of the Oriental are at once apparent.

Outside of the government doctors appointed to deal with the question, the army doctors of Japan are doing heroic work in the same connection. Under the auspices of the latter, special courses of indoor gymnastics and outdoor exercises have been devised to the end of increasing the leg growth. It is claimed that through the medium of appropriate athletics and proper diet, the osseous portions of the human frame can be made to grow in the same fashion as can the other tissues of the body. As a consequence, the soldier of the mikado is now put through a strict course of dietetic and athletic discipline. More than that, the medical staff of the army is trying to embody in the home life the physical lessons taught in the barracks or in the field. The soldiers are instructed to teach their sisters, wives, and mothers those things that will result in a progeny that, in point of stature, will place Japan on a level with other nations.

#### The Attitude of the Government

Still further, the government has issued manifestoes advising mothers not to carry children on their backs, for the reason that the custom causes the bandy legs that are so common in the country. The nation is also besought, and the



Japanese mothers are now warned against carrying their babies in the old-time way.

soldiers are ordered, to sit on something higher than the floor. The kind and quality of exercises, together with the diet for both the army and the navy, are regulated so as "to comply with foreign customs," as the official documents put it. It would seem by this that the authorities believe that these customs explain the superior stature of outsiders. The new scheme of diet calls for a larger percentage of flesh food than has hitherto been deemed sufficient for military purposes; the theory being that the conventional Japanese dietary of a practically vegetarian sort, does not furnish a sufficiency of bone-making material. Without indorsing either type of diet, it may be said that no small part of the marvelous endurance of the Japa-

nese as shown in the late war with Russia, was popularly accredited to the practically meatless rations on which the soldiers in the field subsisted. On the other hand, although it was not generally known, the Japanese forces suffered terribly from beriberi, a fact that was kept from the outside world with Japanese thoroughness. But the writer has been positively informed by an American physician who took a professional part in the struggle, that there were to his personal knowledge forty-four thousand men in the hospital at one and the same time with the disease. And in all cases, so he avers, beriberi arose from rice that had become mildewed, then dried out and served as a ration. This experience may

be another of the reasons why the military authorities of Nippon are making changes in the foodstuffs of their land and water forces.

#### An Appeal to Patriotism

One of the most interesting sections of the manifestoes alluded to is that which gives instructions to mothers relative to fostering the growth of their male children. It begins with an appeal to their patriotism, intimating among other things, that if Japan, with small men, has proved victorious in her recent wars, she, with bigger men, will be able to conquer any nation that she sees fit to conquer in the future. Therefore, it is the duty of Japanese mothers to do all in their power to increase the growth of the children that are living, and to bring into the world progeny that, from their birth, shall give promise of large stature.

The document goes on to give a wealth of minute instructions about the prenatal aspect of the question, suggesting that the prospective mother "think always that she is to bear a son; one who shall be large and with a heart of boldness; having a life that belongs to the mikado." Also, she is begged to "keep her mind in quietness, and her body in health."

To this end, she is given a number of sensible instructions having to do with diet, bathing, exercise, and "cheerful companionships."

In the cases of children that are already living, she is admonished not to carry them pickaback in the usual fashion; to accustom them to the use of chairs, and not to allow them to walk at too early an age; for "the mikado does not approve of these things." Also, she is taught a number of simple exercises that are for the benefit of the little ones, some of them having to do with the legs only, and all of them being of the "stretching" order. Then there are instructions in massage for the lower limbs. Likewise some games are suggested that call for the legs playing an important part therein. One of such games is, practically, high kicking at fruit strung from a string; another is the familiar "hop and push;" while a third consists of lying on the back, raising the body by means of the hands, drawing up one leg, and attempting to touch a mark with the toe of the other leg. Finally, the mothers are told of the benefits that arise from walking, and are urged to encourage their offspring to indulge in this exercise as much as may be.





## IMMODEST FEMININE DRESS

[In view of the importance of the subject, and of the energetic manner in which it is handled by a scientific medical magazine<sup>1</sup> which has never been accused of being hysterical or extreme, and which usually does not discuss such matters, we give in full the editorial comment on the present style of women's dress.—Ed.]

**F**EMININE dress is receiving a great deal of attention in the public press just at present, and there seems to be a growing sentiment that certain reforms are urgently needed if the truest ideals of modest womanhood are to be preserved. The subject falls well within the scope of a scientific medical journal, since there can be no question but that human apparel—of the female particularly—reflects to a marked degree the manners and morals of people, as well as of periods.

Clothing and dress have always exerted a potential influence on the problems of every-day life. Primarily evolved by the urge of physical necessity,—the need of protection from cold, wet, or the heat of the summer sun,—gradually mankind and womankind found that dress afforded opportunities for many things besides the mere attainment of physical comfort. Other emotions and desires soon made themselves felt, and so human clothing has long been representative not only of the physical needs, but also of the moral and mental views of every race.

### Grave Tendencies

It is the truth of this that makes certain tendencies in the dress of the American girl and woman matters of serious moment to the thoughtful analyst of

human manners and customs. To the human female, dress has ever had its value as a means of attracting masculine attention and stimulating masculine interest and desire. As a detail or factor in sexual attraction, it has served a more or less useful purpose.

As long as this rôle of dress has been subordinate to good taste and modesty, no criticism has been warranted, nor could a word of condemnation be uttered. But alas! the features of female dress which have served a legitimate purpose as long as they have not transgressed the bounds of decency and modesty, have for some time been tending to an accentuation and exaggeration of certain details of the female anatomy that are disgusting to every decent instinct.

Styles and modes which are designed for no other purpose than to arouse sexual passion are to be condemned as absolutely out of place in the dress of pure-minded, modest girls and women. They are a pitfall and a menace to the innocent and virtuous female, and as such are intolerable for our daughters, sisters, and womankind in general.

The hobble skirt and its congeners have no artistic charm. One has only to stand on a main thoroughfare in any large city to recognize the evils presented by these monstrosities of modern feminine apparel. The way that hips, thighs, breasts, and other portions of the anatomy are exposed and exaggerated is a

<sup>1</sup> *American Medicine*, July, 1912.

sad commentary on the morals and mental processes of the future mothers of the race.

#### A Loss of Moral Sense?

The more the situation is studied, the more bewildered one is apt to become. Surely, it can not be that our girls and young women are losing their moral sense or lowering their standards of virtue? — No, it is not this — yet. At present, the disgusting and depraved methods and styles of dress that are so deserving of criticism are attributable solely to a desire that so many young girls and women have of being modern and up to date, to be just a little more daring or *risquée* than their associates, and to win the reputation of being stylish dressers. Thoughtlessly they adopt extremes, and give no consideration to the spectacles or freaks they become, or the concession they make to good taste and conscientious scruples.

This is the explanation for the great majority of the girls and young women

who dress themselves in the most vulgar manner with utter disregard of all modesty or maidenly reserve. They do not realize the dangers they are surely fostering, or the terrible menace that they are bringing closer and closer to their daily lives.

The great evils of present-day styles of feminine dress are, therefore, the wrong impression they give of good, pure girls, the invitation they cause innocent women to offer to insult and attack, and finally their indisputable tendency to lower or destroy ideals of womanly modesty and self-respect, which, after all, are just about the best armor that virtue and chastity ever had, or ever will have.

What an illustration of the irony of fate it will be if modern woman, in her frenzied effort to win favor in the eyes of the male sex, adopts the latest and most brazen styles only to find that she has sacrificed the qualities of modesty and reticence that alone can make her attractive to the men worth while!

**The Teeth and Health.**—A Boston physician by careful attention to the mouth and teeth of 350 inmates of an orphan asylum, managed to keep them for a considerable period without infectious disease. Of course this might be a mere coincidence, but from what we know of the means of contracting disease, it is very reasonable to suppose that the care of the mouth and teeth has much to do with the prevention of epidemics.

**Disorders of Sight and Hearing in School-children.**—During May and June in all the schools of rural districts throughout New York State, the sight and hearing of the pupils were tested by the school-teachers, who followed printed instructions sent out by the State department of health. Whenever defects were discovered, the parents were notified, and suggestions were made for treatment by a physician.



EVOLUTION



IN ITS



INFANCY





# THE HUMAN MACHINE



## THE CAUSE OF THE CAUSE OF SKIN DISEASE



TO what extent disease may be due to an improper proportion of ash in the food, is certainly not definitely known at present; but that the lack of one or more of these mineral constituents may have a very serious influence on the bodily health has been proclaimed for some time by men both within and without the regular ranks of the medical profession. In the *St. Louis Medical Review* of May, 1912, is an article entitled "The Cause of the Cause of Skin Disease," by John Aulde, M. D., of Philadelphia. Dr. Aulde believes that many skin troubles are due to an excess in the body of magnesium salts and a deficiency of lime salts. He says: "All foodstuffs contain mineral salts, especially lime and magnesia, and these are essential elements in making the daily repairs to the human body because they enter into the constituents of every cell, whether bone, muscle, or nerve. Such being the case, in regulating the dietary it is necessary to consider the proportions of these minerals which are necessary to maintain the healthful condition of the economy."

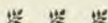
He goes on to show that children, by nature, prefer butter, cheese, and cream, to corn-meal, rice, or flaked

wheat, because the former, he says, are rich in lime, while the latter are rich in magnesia.

Now, according to the doctor, if we disregard these natural instincts of the child, and use the foods which are rich in magnesia instead of the lime foods, the result will be skin eruptions of various kinds; in fact, he seems to think that this may afford some explanation for the cause of pellagra, which many believe to be due to the use of corn as a food.

It would be impracticable in a popular article of this kind to explain fully the nature of Dr. Aulde's article; but the gist of it is that an excess of magnesia in the tissues, coming from an excess of magnesia in the food, results in acute and chronic non-infectious or non-parasitic skin troubles.

In the beginning of skin troubles, he finds it efficacious to place the patient on foods rich in lime; when the condition has become chronic, he finds it necessary to use with the proper foods an "alterative" in addition, which enables the tissues to exchange the magnesia they have already taken up for lime. He uses for this purpose calcium iodid, in very small doses.



### Asthma From Constipation

THE *German Medical Weekly* mentions the case of a boy of eight who had been for a long time suffering from asthma, which decreased while he was at the seaside, but increased on his return home. The physician found the boy's bowels impacted with great masses of hardened feces, which were removed only after repeated syringing. The removal

of these masses caused the asthma to disappear.

In a similar way a woman of forty-two years, suffering from dyspepsia, constipation, and asthma, was completely relieved of her asthma when the constipation was relieved. After nine years the asthma reappeared, and it was found that the constipation had meantime reappeared. The relief of the constipation again caused the asthma to disappear.

### The Cause of Pellagra

MUCH interest is manifested in the cause of this mysterious disease. Does it result from eating corn? A wrong solution of the question involves great injury to many. If the disease has nothing to do with corn, the corn raisers are being unnecessarily damaged as long as the suspicion hangs on this staple cereal. If, on the other hand, corn does cause the disease, damage comes to those who are innocently eating it. Hence the solution of this question involves not only the sanitary interests of vast areas, but also the commercial interests of other vast areas; and the sooner the question is settled, the better it will be; for if sound corn is indeed in any way connected with the cause of pellagra (which I much doubt), the corn-raising people would not be long in putting their acres into some other staple crop. As the *International Clinics*, 1912, Vol. I, says: "The fight over the cause of pellagra is really a fight for the protection of the value of our millions of bushels of corn. It is a fight of Kansas, Nebraska, and other corn-belt States against Italy and the congeries of small Eastern States that absorb our surplus product." This does not mean, of course, that these States

would want to force the use of corn on the people provided it was definitely proved to be the cause of pellagra. No people, with this fact definitely established, would be more ready to turn their vast acres into the production of something more healthful. As a matter of fact, the relation between corn and pellagra is at best only an inference, and a very shaky inference at that.

Sambon's theory of transmission by sand-flies, though plausible, does not have many supporters in the United States. Because of the negative Wasserman reaction in one hundred cases, Carlette, an Italian, pronounces against a protozoan cause. He also says that any person may contract the disease from a sojourn for a brief period in a region which is infested with the sand-fly.

The theory of Alessandrini that the disease is caused by a nematode of the filariidæ, is not confirmed. "The disease still spreads," we are told, "by the discovery of new cases;" that is, more physicians are becoming familiar with it and recognize it, and it has now been reported in more than forty States, fifty thousand cases being reported in South Carolina.



### A Cause for Defective Teeth

THE *Dental Review* asks the question: "Why is it that the older children in a family very often have the best teeth, especially in those cases where the mother gradually loses her teeth without having substitutes inserted?"

The explanation is something like this: The mother, having lost some of her teeth, is not able to masticate her food so well. Her nutrition suffers. Children born and nursed under these circumstances receive insufficient nourishment, especially of the bone-making material; and the teeth are non-resistant and especially liable to the inroads of germs. Because of malnutrition, the lack of vitality

shown in the impairment of the temporary teeth is still further manifested in the defects of the permanent teeth. A vicious circle has been formed; poor teeth in the mother cause poor nutrition in the mother, then poor nutrition in the child, then poor temporary teeth in the child, resulting in further poor nutrition and then in poor permanent teeth. Can this all follow the neglect of the mother to have her teeth attended to? Dr. Hudson says he has seen just such cases, where the older members of the family, born while the mother's teeth were good, grew up with sound teeth, while the younger members, born after the mother's mouth was defective, grew up with defective teeth. It is worth considering.





## THE REQUIREMENTS OF HEALTHFUL EXERCISE

[To Dr. Luther Halsey Gulick, physical culture is not an end, but a means; and the end is not the possession of "muscles that stand out like croquet-balls." Physical culture to the doctor is one important means by which one may increase his personal efficiency, make the most of himself, get the most possible out of life, and contribute as much as possible to the world's uplift.

The doctor in his long years of experience in connection with the Y. M. C. A. work, the public school, and the playground, has acquired a very practical knowledge of exercise in all its forms, and no one is better qualified to speak on the subject. The following abbreviation of an article by him in *Lippincott's* is worthy of general attention.—Ed.]

**T**HE human lungs are able to furnish eight or ten times as much oxygen, and to get rid of many times as much carbon dioxide, as the conditions of modern city life require. The heart also is capable of doing ten times as much work as the city man ordinarily demands, and if he gives his muscles no more use than his business occasions, they become small and fatty.

### Develop Internal Organs

Physical exercise, in order to serve the ends of health, must call into occasional activity the heart, the lungs, and the organs of digestion and excretion. Health depends not upon the power of muscle, but upon the balanced, vigorous, steady functioning of these organs, and the criterion of health is the only safe one to apply in deciding whether a given exercise is a good one or not. All-round exercise usually means that which affects all the muscles of the body.

A person may exercise all the muscles of the body in turn without making much demand upon the heart or lungs. The young man who can tie ropes or chains around his upper arm and break them by bending the elbow and contracting the biceps, or put bands about his chest and burst them by the expansion of the ribs, is proud of his physique, and yet he

has added no power to his circulation.

Sandow used to take a hundred-pound dumb-bell in each hand, and do a back somersault with them. He thought that if he had a bicycle strong enough to support the exertion of his full strength, he could achieve supremacy as a rider. With his tremendous leg muscles he could easily break the shaft of any ordinary bicycle, so he ordered one with a high gear and a specially strong frame. When he got on his machine, he could push it at an extraordinary speed, but he could keep it up for only a few minutes. His power of circulation enabled him to make only a few contractions of his great muscles.

### Gymnastics Do Not Interest

So far, formal gymnastics have not enabled us to establish the habit of exercise. The problem before us is to discover forms of bodily activity which are not only feasible and give work to *all* the organs, but which are so interesting that a person will keep them up all through life, even under the unfavorable conditions of city existence. It is not performing an act over and over, but the interest attached to it, that is most potent in making it a regular part of the daily life.

The lack of the power to interest is not the only shortcoming of all-over exercise.

In my youth I was strongly impressed with the importance of an all-round education of the body. I shaved with my left hand as well as my right. I practised jumping from the left foot, and spent years trying to throw with the left arm. In tennis I served alternately with both hands; and to make all my fingers of equal ability, I had the tendons cut out of the right hand. In short, I tried to train the left side of the body equally as well as the right. Here are the results: I never could jump quite as well from the left foot as from the right. My ambidexterity in tennis cost me the championship doubles in college. With my right arm I could throw three hundred fifty feet, but only two hundred fifty with the left, and, moreover, I never reached the point where I *wanted* to throw with that arm. Equality of strength in the fingers was not gained by the amputation of the tendons, and finally I became convinced that the weakness of the third finger was due rather to nerve habits than to the quality of muscle and bone. I was spending time trying to make parts of my hand and body do things they had not been accustomed to do.

#### Specialization Necessary

There is a school of education which is based upon the notion that the two sides of the brain ought to be trained alike. Its adherents forget that the speech center is only on one side—the left. Should we spend all our time acquiring two poor sides, or would it be better to have one that was good? Every minute of endeavor to train one part of the body to do a thing which has already been specialized on by another part, is time thrown away, and time that should be used in learning some needful thing better. There is only one all-round organism in the world, and that is the ameba.

In examining the adequacy of various particular forms of exercise, it is necessary to ascertain what effect they have upon the four fundamental activities of human life,—circulation, respiration, digestion, and excretion.

During the running high jump, the heart rate remains about normal. It does not get up to two hundred twenty or two hundred thirty, as in running, dancing, rapid callisthenics, and many other activities.

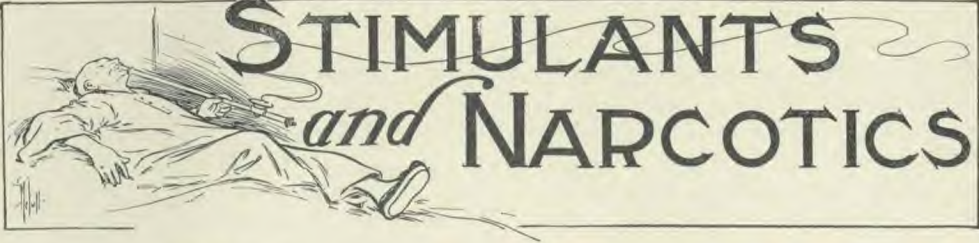
Unless a man jumps a great deal, it does not have much immediate effect upon the digestion, whereas in a ten-mile walk considerable energy is used that must be replaced. It is impossible for any of us to expend enough energy in a few efforts to modify the metabolism of the body. High jumping does not make people hungry to the same degree as dancing, running, pitching, rowing, swimming, or long-distance walking. It is primarily a matter of skill, technique, and muscular coordination, and it does not involve enough of the fundamental activities to make it proper for a man to depend upon it for all his exercise.

#### All-Round Exercises

Mountain climbing meets the four fundamental requirements, and so also does chasing butterflies. For those who care for it, the pursuit is a good specialty from the viewpoint of health. It makes one get out-of-doors; it necessitates large movements of the body, and it satisfies the instinct for the chase.

Skating affects the circulation, involves deep breathing, and produces fatigue. It is usually in the open air, and the violent movements of the trunk—especially the jolts which the poor skater receives—promote excretion. It may sometimes tax the leg muscles severely, but these are large muscles, and it is perfectly safe to exercise them tremendously.

A game which is preeminently well suited to those who desire recreation and general outdoor exercise is that of golf. It is better adapted to adults than to boys and girls, who usually crave violent exertion. A man who plays eighteen holes on a golf course has walked two and one-half miles. He has climbed up hill and down dale. He has stooped down many times; he has been out-of-doors. It is a social game, and so interesting that it quickly becomes a habit.



# STIMULANTS *and* NARCOTICS

## THE LIQUOR TRAFFIC FROM A SOCIOLOGICAL AND A HEALTH STANDPOINT

**Q**NE of the most important papers brought before the committee on the regulation of the liquor traffic in the District of Columbia was that by Prof. Irving Fisher, of Yale University. While most of the evidence was based on local conditions, Professor Fisher's paper had to do with the use of liquor in a broad way, irrespective of locality.

We should now smile at a proposal to legislate as to whether such and such a county should recognize slavery; whether the abuse of slavery in some particular spot was so flagrant that it demanded more stringent regulation or else suppression.

The public conscience has said that slavery under the best conditions and with the most humane of masters is too monstrous an evil to be tolerated anywhere in civilization, and it has spoken in no uncertain terms. Yet scarcely more than half a century ago, within the memory of many yet living, any one who advocated the universal emancipation of slaves was considered an extremist, a wild enthusiast, a fanatic with more zeal than sense, a crazy would-be reformer, who would be less of a nuisance if he would attend to his own business. Even the hatred of the liquor man for the temperance reformer can scarcely equal the odium that was cast upon the early abolitionists by the conservative people, the people who were then supposed to represent the best in society, both North and South.

But the cranks, the "disturbers of Israel," the "extremists who ought to be

in better business," kept right on with their campaign of education, and finally the book "Uncle Tom's Cabin" appeared and helped to turn the tide. Then came a Lincoln who carried the Union through its life-and-death struggle to rid itself of its great wrong, so strongly entrenched in "vested rights."

Slowly but surely the public conscience develops. Another crying evil is before the court of public opinion fighting for its life. A few persons here and there have recognized that the liquor traffic, like the slavery institution, is an evil in itself, and that it is not a question of regulation, but of eventual abolition. They are "cranks," "extremists," "impossibles," and all that, in the eyes of the "respectable" majority; but slowly, gradually, surely, that public conscience is forming which will dethrone the liquor. Will it come this year, or the next, or the next? Will it come only after a bloody war? I hope not. But come it will.

The forces for right have been most valiantly fighting, sometimes poorly equipped as far as actual knowledge of physiology is concerned. But there was evil in the liquor traffic that needed not the physiologist and the sociologist to point it out, evil that every man who loved his fellow men could see, and on this basis they fought. Against them were allied the appetites of men, the weaknesses of men, and, worst of all, the avarice of men in the shape of "vested interests" and professional politics. The odds were many, and sometimes it seemed as if the battle would be lost.

But now reinforcements have appeared in the persons of scientific men, laboratory men who have carefully and conscientiously studied the effects, not only of large doses of alcohol, but also of small doses. A flood of light has been thrown upon the entire question, which is causing a rapid change of alignment.

But this is wandering far away from Professor Fisher's paper. The significance of the paper is that it is not the utterances of an irresponsible enthusiast, but of a careful scientist who is accustomed to weigh his words. He not only makes assertions, but he enforces them by the statements of other men, careful students who have made no statements without careful consideration.

Professor Fisher has shown,—

That the lowering of the death-rate in London has been exactly parallel to the lowered consumption of liquor in that city.

That the lessening of liquor consumption in Sweden has been followed by a remarkable lowering of its already low death-rate.

That alcohol, even in moderate quantity, actually lessens efficiency, mental and physical.

That alcohol greatly increases the susceptibility to disease.

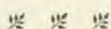
That alcohol is an important cause of insanity.

That alcohol lessens the average length of life, as shown by the reports of insurance companies and friendly societies.

That alcohol increases poverty.

These propositions, though scarcely new to any of us, are here backed up by the authority of men who are in no wise inclined to allow enthusiasm to carry them beyond the truth.

A great battle is coming. On one side is the "business," with the thousands looking to it for support, and the capital invested in breweries and distilleries, which knows too well how to place money so as to influence legislation. On the other side are the mothers and the wives and the daughters of unfortunate victims of drink. There are also the people who pray, "Thy will be done in earth, as it is in heaven," and who believe that "faith if it hath not works, is dead." There are those who, whether Christian in name or not, believe that all men are brothers, and that no man should have the right, for gain or otherwise, to debauch his brother and ruin his family. These all, without a corruption fund, without any incentive other than a love for their fellow man and a hatred of all agencies that debauch and ruin and despoil him, continue the agitation of education as did their kind half a century ago; and they will continue the warfare until it is crowned with success.



### Alcohol and Insanity

NOTWITHSTANDING the fact that comparatively little is taught in the medical colleges regarding the effects of alcohol, especially in so-called "moderate doses," physicians are awakening to the damage done by this nerve toxin. Dr. J. Wigglesworth, in the *Medical Temperance Review* (London), May, 1912, gives a temperate, but forceful arraignment of alcohol on account of its influence in predisposing to insanity. Those who use liquor with the thought that it is doing them no perceptible harm, should read carefully Dr. Wigglesworth's words. He says:—

"To compare the mental state of a person who is slightly under the influence of alcohol with that of one who is suffering from an attack of mania [insanity] may appear to many persons absurd, but it will appear less so to those who have had most experience with mental disorders. As a matter of fact, certain mild forms of simple mania bear a remarkably close resemblance to slight conditions of alcoholic intoxication. There is the same loss of the highest consciousness, the same overaction of cerebral centers other than the highest, the same pleasing condition of exhilaration, the same incapacity on the part of the individual concerned to realize that his condition is other than a perfectly normal one.

"But the difference between what is ordinarily considered to be a state of mild alcoholic intoxication, and the condition of exhilaration with tendency to loquacity, which is one of the earliest and most constant results

of imbibing small quantities of alcohol, is a difference of degree only and not of kind. Both are alike manifestations of a loss of control; both equally imply the temporary withdrawal of some of the restraining influence of the highest cerebral centers.

"The subjective sense of increased strength and power which alcohol confers upon an individual is then, I submit, a delusion and a snare comparable to the subjective feelings of happiness and bodily vigor displayed by the general paralytic, who floats along in a whirlwind of delight, totally unable to realize his physical weakness, which is so evident to the objective observer. I submit, then, that the primary and essential element in the action of alcohol is the paralyzing influence it exerts upon the highest cerebral centers, those which

subserve the delicate adjustments of an individual to his social surroundings, and upon the activity of which the highest processes of thought and feeling depend.

"These considerations will help us to a clear understanding as to the part which alcohol plays in the production of mental disorders. When the action of alcohol is intermittent, the toxic influence which this drug exerts upon the cerebral centers is at first speedily recovered from, and it may be said generally that this agent has usually to be taken into the system for a long period or in considerable quantities before definite mental disorder manifests itself. The process can not, however, go on indefinitely, continuing day by day without some change of a permanent character becoming developed."



### Morals of College Life

ONE would, if he did not stop to think, suppose that our institutions of higher education were for the development of our young men and women, physically, mentally, and morally. He would so suppose until he stood corrected by the facts.

Do we wonder sometimes why it is that men of influence, otherwise efficient and capable, are woefully indifferent to the effects of the drink curse? Could it be otherwise, when the institutions of higher learning, through their clubs and social arrangements, do everything to foster a familiarity with drink? Seneca Egbert, in the *New York Medical Journal* of March 9, 1912, says:—

"As for the drinking habit, it is, among other reasons, to be deplored in college life because of the immaturity of both the body and the judgment of those who accustom themselves to it. Immature bodies are more readily harmed by alcohol than are those of adults, and immature judgment prevents a true appreciation of the dangers of the habit, there being with youthful inexperience a lack of proper mental balance and sense of proportion and

values. While alcohol may occasionally whip a clever brain to the accomplishment of some brilliant feat that elicits admiration, the results of its use are far more frequently disastrous, and the acquisition of the habit almost always tends to render the student unfit for sustained and creditable work.

"Moreover, the use of alcohol by young men is also to be deprecated because it renders them easy victims of the unscrupulous, and especially because it lessens or annuls the power of resisting temptations, particularly as regards sexual indulgence and transgression, —the gravest of the moral problems of this character and the chief theme of our discussion to-night. Other phases of the relationships of college students and the alcohol habit will occur to many, but I think that most of you will admit that were it not for the physical excitation and the obtunding of the moral sense and conscience due to alcohol, other temptations would be lessened in force and power, and be more easily and frequently resisted. Temperance and continence are twin virtues which strengthen each other and brook severance with poor grace."

Dr. Egbert speaks in vigorous terms of other features of college morals, but this is enough for the present. The institutions that train our future leaders should train the moral nature as well as the intellectual.





# HEALTHFUL COOKERY

## DAIRY PRODUCTS

George E. Cornforth

### Artificially Prepared Buttermilk

**B**UTTERMILK has long been recognized as a wholesome food, possessing health-giving properties. But buttermilk is deprived of the fat of the milk, and from the fact that the milk may have been old and germ-laden before the butter was made, the buttermilk may not be of the cleanest or most wholesome nature. By making use of the germ which causes the souring of milk, an artificially prepared buttermilk may be prepared which is free from harmful germs, and which contains all the food constituents of the milk. There are various brands of buttermilk tablets on the market for the preparation of this milk. They may be obtained at a drug store. The process of making the milk is as follows:—

Pulverize one tablet, and dissolve it in a little cold water. Sterilize one quart of milk, and *cool it until lukewarm*. Add a few grains of salt and the dissolved tablet. Stir well. Set in a warm place where the temperature would be right for setting yeast bread to rise. Keep it at that temperature for forty-eight hours. At the end of that time, possibly it might be a little longer or a little shorter, it will be thickened. Set it in the refrigerator. When cold, whip it with a batter whip till it is creamy. When more is required, it is not necessary to use another tablet. One-fourth cup of this prepared milk is sufficient to make one gallon. Proceed as in making the first quart, using the one-fourth cup of prepared milk in place of the tablet. It will probably not be necessary to allow it to stand much more than twelve hours when made in this way. The new lot should not be pre-

pared from the old milk more than three or four times, because other germs are sure to get in, which may cause some trouble in properly preparing it. It should not be allowed to stand too long in a warm place. If it does, the whey may separate from the curd, and the result will be a thin, watery milk instead of a thick, creamy one. Just as soon as the milk thickens, it should be put into a cold place. This buttermilk may be prepared from skim-milk, but it will not be so thick and rich as when prepared from whole milk. Some recipes call for the addition of water to the milk when the tablet is added. This makes a thinner and less rich milk. This milk may be prepared in bowls instead of in one large dish, and put into the refrigerator after the milk thickens. When cold it may be eaten with a spoon. A bowl of this with zwieback would make a wholesome and nutritious lunch. Or it may be put into small molds or custard cups to thicken. After it has become solid, set in the refrigerator to become very cold. The molds may then be turned out and served with cake or crackers. A little sugar is usually eaten on it when it is served in this way. Cream and sugar may be used.

In this sour-milk preparation the casein of the milk is in the form of fine, flaky curds, which are very easily acted upon by the digestive fluids. It can not form large, hard curds in the stomach.

### Cottage Cheese

The best of cottage cheese may be made from milk prepared according to the above directions. The soured milk should be prepared in a shallow pan. With a knife cut the milk into two-



inch cubes. Set the pan in a moderate oven, and heat the milk to just a little above lukewarm. Heating it too hot will make the cheese tough, and you will get less cheese. Do not stir the milk. This also will lessen the quantity of cheese. When the whey has separated, pour the milk into a cheese-cloth bag, and hang up to drain. Remove from the bag and season with salt and cream. The cheese may be formed into balls or cakes if desired.

Cottage cheese may be made from ordinary sour milk by the same process. Soured skim-milk may be used; but the cheese made from skim-milk is not so pleasant nor so nutritious as that made from whole milk.

#### Junket

Junket is prepared by coagulating milk with rennet. Rennet is a digestive principle obtained from the lining of a calf's stomach. The same ferment is secreted by the human stomach, and whenever sweet milk is taken into the stomach, it is very soon turned to junket. Junket tablets may be obtained at any druggist's and at many grocers'. To prepare junket:—

To one quart milk add one-fourth cup sugar, a few grains salt, and a little

lemon or vanilla flavoring. Heat until lukewarm. Junket can not be prepared from sterilized milk. Add one junket tablet, which has been dissolved in one tablespoonful cold water. Turn into custard cups *at once*. Allow to remain in a warm place without disturbing till set, which will take but a few minutes. Then set away in a cold place. If allowed to remain warm too long, it may sour, or the whey may separate. This makes a simple and wholesome dessert. It is very digestible, because the casein is coagulated into a soft curd, and it can not form large, hard curds in the stomach.

#### Whipped Cream

The most convenient way to whip cream is to put it into a tall, narrow pitcher or tin can just large enough to allow the egg beater to revolve in it. Have the cream cold. Add flavoring, and sugar in the proportion of one level tablespoonful to one cup of cream. Beat till the cream thickens, but do not expect it to become as thick as butter, because it will begin to turn to butter before it becomes as thick as that. Stop whipping while the cream is still smooth. If beaten too long, it looks rough and curdled.



Utensils for sterilizing and Pasteurizing milk. Tablets for making artificial buttermilk and junket, and molds in which to make them.

### Condensed and Evaporated Milk

Condensed milk is milk that has been evaporated in a vacuum and preserved with sugar. Sufficient sugar is used so that it is not necessary to seal it up while hot. It is put into the cans when cold, and sealed. It is really a milk sirup, and can hardly be considered wholesome to-use in quantity as a substitute for milk.

Evaporated milk is milk which has been evaporated in a vacuum to between one third and one half of its original bulk, and then sealed up in a sterile condition. Diluting it with one and one-half to two times its bulk of water will make of it a milk which closely resembles new milk in its nutritive value, though not in flavor. How nearly it equals whole milk will depend upon whether it was made from whole milk or skim-milk. Evaporated milk seems to be more digestible than fresh milk, probably because it does not form large curds in the stomach. However, this should not be sufficient to recommend it as a continual substitute for fresh milk.

### Butter

The wholesomeness of the average butter found on the market may be seriously questioned. In fact, both cream and butter contain more germs than an equal measure of the milk from which they were obtained. I wonder how many of our readers have ever tasted butter which was perfectly sweet and free from tainted odor or taste. I am free to say that I have seldom tasted butter whose taste or odor did not suggest the flavor of old milk, or old butter, or something bordering on rancidity. Perhaps this flavor is

commonly thought to be the natural flavor of butter. But when butter is pure and clean, it has a sweet, pure taste and odor; and such butter is seldom found, perhaps never, unless it is made from clean, pure, sterilized cream. Miss Ida May Pryce says in a recent magazine that oleomargarin "is cleaner and purer than most of the dairy butter as made to-day." We would not eat oleomargarin, because it is an animal fat. But if oleomargarin is cleaner and purer than most of the dairy butter as made to-day, that fact gives emphasis to the first statement in this paragraph. Sterilizing butter will kill the disease germs, but may not remove all the objections to it due to its being produced in an unclean, insanitary manner.

### To Sterilize Butter

Boil the butter in water for fifteen or twenty minutes. Allow the whole to get cold. Remove the butter from the top of the water. It will have a grainy consistency, which makes it unpalatable, and will have lost its salt, which dissolves in the water. To overcome these objections, warm the butter just enough to melt it, add salt and beat it with an egg beater while it cools. This gives it a smooth, creamy consistency.

Sterilized butter may be made from sterilized cream by the usual process of making butter. It may be made in small quantities at home by sterilizing the cream, and allowing it to stand in a cold place till the next day, then whipping it till it separates, draining off the buttermilk, washing with cold water, and working in salt.



A mold of curded milk, or junket, with cake. A well-set lunch.

## THE REFORMED THANKSGIVING DINNER

Mrs. D. A. Fitch



RS. HINTON opened her letter to find a card on which was written: "Helen requests the presence of Aunt Bessie at Thanksgiving dinner next week."

The accompanying sheet from the daughter of her sister set her to thinking: "We very much wish you to accept our invitation to dine with us. Aunt Mary and her family will be here, and with father, mother, and my brothers and sisters, we anticipate a joyful Thanksgiving day. But before you come, I must tell you the dinner will be quite a surprise; for there will be no oysters, turkey, or other slain animal. The pickles of various kinds, cheese, ice-cream, fruit-cake, and any other highly seasoned food will be omitted. It may seem scarcely worth while to come, but I know you do not come simply for the 'eatings,' so shall not tell you of what the bill of fare will consist, leaving you to pronounce judgment upon it later."

Helen's Thanksgiving menu follows:—

Corn Soup with Toasted Crackers or Croutons  
Fruit Salad  
Vegetarian Loaf with Cranberry Sauce  
Baked Sweet Potatoes  
Mashed Potato with Fricassee of Protose  
Green Peas Celery Baked Beets  
Flake Mince-meat  
Pumpkin Pie Fruit Nectar

It was not until after the meal had been served in simple family style that Helen encouraged remarks or questions concerning it; but when it was finished, she was glad to have all engage in a discussion, which revealed the following important principles regarding the nature and nutritive value of foods: That flesh is not necessary; that vegetables and fruits are not a good combination; that a great variety is detrimental to digestion; and that a menu so prepared as to tempt the overindulgence of appetite leads to bad results.

"Your dinner was so very palatable and your ideas are so rational," said Mrs.

Hinton, "that I should like recipes for preparing the dishes that are new to me. Do you have a cook-book from which you learn them?"

"Yes, Aunt Bessie, I have several such books, but for most of the suggestions for this dinner I am indebted to the 'Vegetarian Cook-Book,' published by Pacific Press, Mountain View, Cal.

"The soup is very simple:—

"Green or canned corn pressed through the colander, seasoned with salt, and diluted with rich milk until it is of the proper consistency.

"The croutons are stale bread cubes, toasted slowly in the oven until a rich brown.

"The salad consists of equal parts of apple, banana, and orange, cut in half-inch cubes, and covered well with golden salad dressing, of which the following recipe makes enough for a good-sized family:—

"Pineapple- and lemon-juice, one-fourth cup each; beaten eggs, two; sugar, one-third cup. After beating the eggs well, add the juices, sugar, and a pinch of salt. Beat together, and let boil two minutes in a double boiler. Cool before serving.

"The vegetarian loaf is made up of elements that will supply to the system that for which we use lean flesh. The recipe runs thus:—

"To two cups of hot water add one-third pound of minced nut food— one of the canned nut foods or boiled peanuts; the juice of one-half onion and a tablespoonful of butter or cooking-oil. Thicken with toasted bread-crumbs until quite stiff. Add one beaten egg, a little salt and sage. Press into an oiled tin and bake.

"It may be served with a gravy or cranberry sauce that has been passed through the colander to remove the skins. The dressing is made as dressings usually are, minus some of the condiments and excessive fat.

"Combined with the potato we have another substitute for flesh:—

"Into the sides of a platter of mashed potato, press half slices of broiled nut food, and over all pour brown gravy.

"Beets baked are much sweeter and richer than when steamed or boiled. If it is desired to have them otherwise than plain, they may be sliced or chopped, and served with a dressing of lemon-juice in place of vinegar.

"You tried our flake mince-meat, and found it much more hygienic that its name might suggest. It is composed of good things, surely; the only objection is the great variety. Let me name the ingredients:—

"Four cups minced apples (the skins need not be removed); one cup prune-juice; one cup sugar; one cup molasses; a little butter and flavoring if desired; three cups minced protose; two cups seedless raisins; and the juice and grated rind of one lemon. Stew all together until it is of proper thickness to fill a pie crust. Instead of using it for a pie, put a large spoonful on a saucer of

freshly toasted corn flakes. A portion of whipped cream, topped with a candied red cherry, is a suitable addition.

"The fruit nectar completes our list, and, while we do not consider it well to drink freely at meals, the color of this beverage adds much to the appearance of the table. It is lemonade colored with any fruit-juice handy or desired."

Mrs. Hinton seemed to be thinking deeply for a few minutes, and then said: "Surely, this has been a very enjoyable meal, so simple and easily prepared, and inexpensive, too, I judge. No life was taken to satisfy our appetites. For my own part, I never felt better after a holiday dinner than I do just now. I shall be glad to accept your invitation to remain until after Christmas. I believe that in a month's time my knowledge of your new methods will be greatly increased. By the way, may I be at home in the kitchen and practise this cooking, thus learning by doing?"

"You shall be perfectly at home in any part of the premises," answered Helen, heartily.

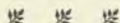


# EDITORIAL

## GOOD HEALTH IS GOOD BUSINESS

**T**HERE came a message over the telephone a few days ago: "Do you know anything about the welfare work of the National Cash Register Company?" I knew something of this work, and had been planning a visit to their factory to learn more about how they care for their employees. As I could not make out distinctly the rest of the telephone message, except that my informant had been to Dayton and had something of interest, I promised to visit her the next day. It was Dr. Elnora C. Folkmar, superintendent of the educational department of the Woman's Clinic in Washington, who has been for a long time much interested in social work, and especially in the education of the young in the matter of hygiene, particularly sex hygiene.

I found the doctor awaiting me with a large assortment of lantern slides. There were in fact, two hundred sixty slides in the series, perhaps as complete a set as has been collected on the subject of sex hygiene.



Before showing me the slides, she told me her story. First, a brief chapter on the work in general which the N. C. R. people are doing for their employees. She told about the large, well-lighted, immaculately clean rooms; the immense lavatories on each floor with ample room, and large piles of individual towels (none of your roller-towels there!); hospital and first-aid corps for the sick; a large education hall, the privilege being given the employees to attend lectures on the time of the company; literary and social clubs allowed to hold meetings at certain intervals on the time of the company; bath-rooms, and bathing facilities allowed to each employee twice a week on the time of the company; shorter hours for women, with recesses forenoon and afternoon; warm lunches at ridiculously low prices; minimum wage of seven dollars a week; recreation-grounds, with free transportation to employees; and more that would run this article to an immoderate length to tell it all.

Plainly, the doctor had been won over by what she had seen at Dayton. I said, "I suppose notwithstanding all this, there are kickers there. You find them everywhere." She replied that she did not see any. Everybody was absolutely loyal to the company.



The N. C. R. Company did not go into this welfare work for benevolence. They say: "We are not philanthropists; it is simply business. Our factory can earn more if we keep our employees in perfect condition." Would there were many more factories which had such keen business sense!

The attempt is made, by giving a physical examination to all applicants for employment, to keep out disease; but notwithstanding all their effort, one of their employees recently had a bad blood disease, and being hurt and rendered first aid by his fellow employees, three of these caught the disease from him.

This caused the management to determine to prepare a lecture on sex diseases to be delivered to the men. Before giving it to the employees, it was thought

best to try it out on the county medical society for criticism, and in this way have the rough corners taken off. After the one in charge of the lecture had given it to the county medical society, he by invitation gave it to the State medical society, and then at Atlantic City, to the American Medical Association, in each place inviting criticism on the lecture. At the last place, Dr. Folkmar, who was present, gave as her criticism her belief that such lectures should be preceded by instruction in sex physiology in plants, insects, birds, animals, and finally in man.

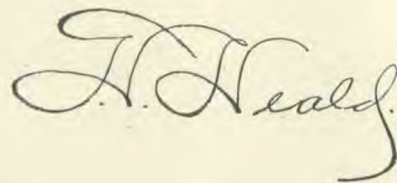
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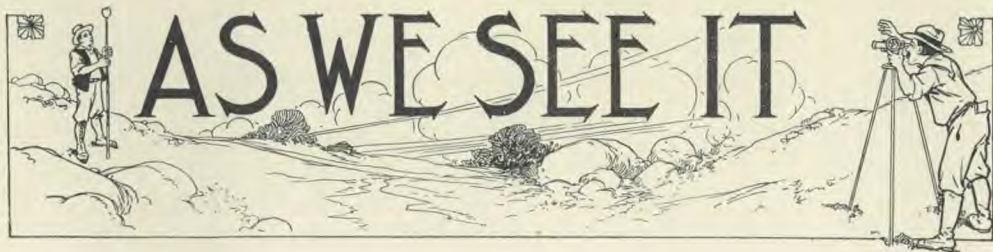
The next day she was surprised to receive an invitation to lecture to the girls in the N. C. R. factory on this subject, and was given the liberty to go to any expense necessary in preparing slides and other material for the lectures. She spent one month in selecting material for the slides, the illustrations being sent on to Dayton, where the company has men who prepare the slides. The preparations for the lecture course cost several hundred dollars. Dr. Folkmar gave four illustrated lectures and two conferences of one and one-half hour each, to the seven hundred girls, making a total of 6,300 hours, all on company time. She estimates that this course of lectures for the girls must have cost the company from \$2,000 to \$2,500, a forceful proof of the value placed by this company on the importance of having healthy employees. The company extended the privileges of Dr. Folkmar's lectures to the wives of the officers and foremen of the company, and to the mothers of the girls, by having three of them repeated in the evening,—physiology of reproduction, hygiene of adolescence, and social diseases. When she had finished her work, the company gave her a duplicate set of the slides, two hundred sixty in number, which she could not have obtained elsewhere at any price, as they are not to be had.

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When a company which studies how it can best invest its means so as to make its plant the most efficient possible, and make it gain the most possible for the owners, thus sees the importance of giving rigid and careful attention to the health of their employees, should not the lesson be taken to heart by other employers, and by municipalities, and by heads of families? After all, sound health is the greatest material asset that we have, and without which all other blessings are marred.

It is to be hoped that this example set by the National Cash Register people will help to break the spell of silence and mystery which has always been cast about the subject of sex hygiene, which is one of the most important subjects with which we have to deal in instructing the young.





### Why Less Meat?

LEADING Chicago packers, according to the Washington *Herald* of July 6, have recently made the statement showing that the increase in live stock has been much less than the increase in population. And there has been a great proportional increase in other foods, such as cereals, vegetables, etc. The prices of meats have materially increased, and there has been a great increase in the consumption of cereals and vegetables, and a decrease in the consumption of meat. The *Herald* says it is quite plain that we are using more cereals and less meat, especially in large families, and comments:—

“This from a purely scientific point of view is better for us. The vast herds formerly filling our prairies gave us opportunity to have plenty of meat to eat; but later scientific discoveries have concluded that this was not beneficial. Therefore, we should feel that we are going a better way when we hear of the increased use of wheat, so long as it is converted into wholesome bread.”



### Boston Mayor Eschews Meat

IN order to protest against the present prices, the mayor of Boston has asked the people in general to join him in a boycott of meat with the purpose of forcing down prices. The mayor says: “The people should use more vegetables. . . . The American people of to-day eat altogether too much meat.” And he is right. If the people of the United States should eat only the meat that they actually need to maintain good health, the beef trust would go bankrupt. The trouble is the trust people know too well the power of appetite, and that the attempt to boycott meat would be like the attempt to boycott whisky or tobacco. The punishment would be too hard on

the boycotters because of their life-long habits.

To give up the use of meat, alcohol, or tobacco, even by one who is certain that the change would be better for him, is no easy task; and for one to do it in order to get even with the trust, when all the time his appetite is calling for the article, is almost impossible for the average human. Ninety-nine out of a hundred will be likely to say, “I am only one; it will not make any difference to the trust whether I eat meat or not. I will let the other fellows carry on the boycott.” And probably one out of a hundred will, in the end, carry on the boycott. The beef trust is well enough acquainted with human nature to know that, and they are not borrowing any trouble from the threatened boycott.

But it is no wonder that the common people feel that they have to have meat, regardless of price, when a paper with the authority of the *American Medicine*, speaking in regard to the meat famine, can say, “Can not our dietetists realize that in a short time the poorest paid of our population can not afford meat more than once a week or month or not at all? What will the human harvest be?”

Our brother editor speaks as if meat were a necessity. This is one of the obsessions of the age, and should be classed with the “popular sanitary errors” spoken of by Dr. David Starr Jordan in the June *Science*, and quoted with approval in this same issue of the *American Medicine*. The necessity for the use of meat lies entirely in the fact that man has formed a habit of eating it, and that he thinks he needs it. Physiologically, it is no necessity.

**A Tobacco Sermon**

IT is not often that medical journals step aside to preach a sermon on tobacco,—for what's the use?—but occasionally we get such a message right from the shoulder. Here is one from the *Medical Era*:—

"To one who has access to a cancer hospital, the lesson is brought home that man not only digs his grave with his teeth, but also by indulgence in that appetite for tobacco which is one of the characteristics of the average man. . . . For the lips the pipe-stem and the dry porous cigarette-paper are a real danger, while the use of any form of pipe often eventuates in tongue cancer."

Not every one who smokes becomes afflicted with cancer, and perhaps it is because of the chance of escaping this fearful danger that individuals are ready to form a habit that incurs such a risk.

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**Is the Crusade a Failure?**

Is the antiliquor crusade a failure? We are apt sometimes to think it is, as we see the laws secretly disobeyed and openly defied, and as we see here and there the repeal of local laws with an apparent revulsion of sentiment. But the leaven is working slowly and surely, as even the enemy recognizes. A Los Angeles liquor dealer, commenting upon the news that five hundred Chicago liquor dealers were about to give up their licenses on account of poor business, is reported to have said:—

"People do not drink nowadays as they used to, and the result is that the liquor traffic is gradually decreasing. The obvious reason is that the modern generation has been taught from childhood that drink in excess is wrong. The population of Los Angeles four or five years ago was in the neighborhood of 200,000. It has been more than doubled to-day. Were conditions now as they used to be, there should be a marked increase in the liquor traffic. But there is no increase. Business to-day is about what it was then. There has not been a sign of increase. The only logical conclusion for this is that people are awaking to the fact that too much liquor is harmful.

"In Los Angeles to-day there are two hundred saloons and about ninety wholesale houses. Look on the accounts of these concerns, and you will find that none of them are making a cent more than they did ten years ago. During that period the population has increased in a marvelous manner. Drunkenness is slowly, but surely dying out. I do not

believe that the American people to-day drink more than two thirds as much alcoholic liquors as they did three years ago."

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**The Danger of Patent Medicines**

AN article under this title prepared by Harry Everett Barnard, food and drug commissioner of Indiana, appeared in the July issue of the *National Magazine*. Speaking of the influence of the food and drug law, he says:—

"Some of the most successful, though most worthless, frauds were drummed out of existence. The dilute sulphurous acid concoctions costing less than a cent a bottle and selling for a dollar, the cheap whisky mixtures, the dangerous cancer cures, disappeared. But in their stead there came and flourishes a host of no less worthless and deceitful pills and powders, oils, tablets, sirups, high-priced, crudely compounded, skilfully advertised agents for the banishment of disease."

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**Natural Versus Narcotic Sleep**

DURING natural sleep there is a natural restoration of the function of the brain cells. During the waking hours, the supply of oxygen not being quite sufficient to keep the cells at their maximum, we have the fatigue which demands sleep. During sleep, while the cells are resting, restoration takes place by means of oxygen which now is not required for immediate functioning, and which can be used for repair work, as it were.

But in narcosis, produced by drugs, there is a diminution of oxidation. Even when the supply of oxygen in the lungs is ample, it does not reach the gray cells of the brain; in fact, the brain cells undergo a process analogous to drowning. As the *Therapeutic Gazette* says:—

"If we use narcotics to produce sleep, we must always bear in mind that no true sleep occurs as long as the narcosis of the cortex lasts."

Though the *Gazette* admits that a hypnotic may sometime prove beneficial in the hands of a physician when used sparingly, it continues:—

"The physician must, however, never forget that not the entire period of unconsciousness which follows the use of the hypnotic is true sleeping, but that at first it is rather a depression, the injurious effect of which will manifest itself when the hypnotic is used for any long period."



**Intestinal  
Flatulence**

DR. DUDLEY D. ROBERTS, in the *Long Island Medical Journal*, of July, 1912, explains the difference between true and false intestinal flatulence. He finds that in many cases hypochondriacs and others make complaint of this trouble, when in fact there is no more flatulence present than is normal. He says:—

"Abnormal flatulence depends on an excessive fermentation or the abnormal accumulation of a normal flatus or a combination of the two conditions.

"Too much reliance is placed on antifermentative drugs and digestive ferments to relieve the complaint of flatulence.

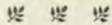
"Too little attention is given to benefits to be derived from proper regulation of the bowels through whatever measures may be necessary for the particular case."

Among the remedies he suggests the following:—

"In all cases the bowel must be supplied with food which leaves a large, soft residue. Fats and oils are used almost to the point of intolerance. Cellulose-holding vegetables are used with at least two meals a day, and agar, is taken regularly to the amount of three to six heaping teaspoonfuls per diem. Cathartics, rough foods such as seeds, sweets, and strong acids, are interdicted."

Dr. Roberts does not believe in the use of bacterial cultures, which, he says, "do not overgrow the normal bacteria of the colon, but rather are themselves killed off before reaching the place where fermentations and putrefactions principally occur."

Possibly one reason why so many have not succeeded in the bacterial treatment of intestinal conditions is that they have not experimented with the true *Bulgarius bacillus*. The fact is, very little of the true bacillus gets into America.

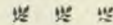
**Treatment of  
Bright's Disease**

BRIGHT'S disease is, as every one knows, a condition in which the kidneys are more or less damaged. The following quotation, taken from the *Youth's Companion*, gives some excellent advice regarding the care of Bright's disease, and the reasons therefor:—

"The main object of treatment is to guard the crippled kidney from anything that will further injure it or tax its enfeebled powers of elimination. To this end, the diet should be

very carefully regulated. Eggs, meat, rich or highly seasoned dishes, or alcoholic beverages should be permitted only in the smallest quantities. The ideal food for a sufferer from Bright's disease is milk, since it meets nearly all the requirements of a food that can be digested readily, and leaves the smallest amount of waste material, and at the same time flushes the kidneys, washing out the poisons that will injure still more the already damaged tissues if not quickly removed."

It stands to reason that when the kidneys are crippled, they are crippled because of some adverse influences. These may, in many cases, be germs of preceding diseases, but not necessarily so; and the foods that one finds he must give up in order to maintain the kidneys in their proper condition, are the foods which he should have been cautious about using a little earlier in life in order to prevent kidney trouble; for when such a trouble is once established, it is not easily remedied. Prevention is always better than cure. Whatever may be said regarding the influence of bacteria as a cause of kidney trouble, there is no question that the greater proportion of sufferers from this disease are the high livers who have thrown extra work on their kidneys by means of their indulgence of appetite.

**"Germey"  
Bread**

A PAPER recently appeared in the *American Journal of Public Health*, showing that the bacterial infection of unwrapped loaves may reach into the hundreds of thousands of germs. One hundred loaves were purchased in Chicago from one hundred different shops. Fourteen of them were covered with more than 10,000 germs each. The loaves in the clean shops were not so badly affected as the loaves in the unclean shops, and the wrapped bread did not show as great contamination as the unwrapped bread. But it is said to be difficult to sell wrapped bread in some sections of the city, because the people want to test the bread by *pinching it between the thumb and finger*, which of course does not diminish the amount of germ contamination by any means.

The *Journal A. M. A.*, commenting on this paper, says:—

"For a practically universal article of diet, bread seems to receive little attention from bacteriologists. Usually handled by several persons, often exposed to flies and street dust, sometimes tossed about under very uncleanly conditions, baker's bread is obviously liable to pick up dangerous bacterial contamination. If it is handled by a typhoid carrier it is possible for typhoid bacilli to be smeared on the outside of the loaf, and since bread is eaten without heating and very soon after it reaches the consumer, it may readily be the means of conveying infection."

As a matter of fact some cases of typhoid infection have been actually traced to loaves of bread handled by a person who had been caring for a typhoid patient, and other similar cases have been traced.

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#### Why Not Before

THE following advice is given by a physician of experience to physicians who have to treat persons showing signs of old age:—

"When we first discover a moderately high pressure, of say 150 mm. mercury or over, a certain amount of rest and moderate exercise should be enjoined, and alcohol, tea, coffee, and tobacco in many cases should be interdicted."

It is all very well to tell a man that he must give up these things or drop into the grave; and perhaps he does give them up for a while, but on account of the long-established habit, he more likely will, in a short time, give up the attempt to reform, preferring to live comfortably even if he lives a shorter time.

Now, in all honesty, why not begin such reforms before the time that they come to a person as an alternative for death, and when death would almost be preferred to giving them up? Why, in fact, form the habit of using such articles when one can be just as comfortable, just as happy, just as efficient, if not more so, by doing without them?

When we form a habit of indulgence of any kind, we add one more to our necessities which *must* be supplied in order to be comfortable. And when it is fairly certain that some day we shall have to decide between the alternative

of giving up this created necessity (which has grown immeasurably during the years of indulgence) and dying prematurely, is it rational to begin?

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#### Senility a Relative Term

So says the *Journal A. M. A.* A man of thirty-five may show more senile changes than another man of sixty. The senile changes mean that degeneration is taking place, that the usefulness and efficiency of the person is being lessened, and that death is making its first advance. It is significant that the present tendency is to attribute senility quite largely to the manner of eating, and, naturally, the suggested treatment is along the same line. While the *Journal* recognizes that each patient is an individual that must be studied for himself, and his diet regulated accordingly, it gives the following general directions:—

"Such patients should ordinarily be restricted to meat once a day; to such vegetables as do not cause the patient to have flatulence; as much milk and cream as he is capable of digesting without gastro-intestinal disturbance; as much fruit as agrees with him best; restriction of tea and coffee, often even to the point of interdicting their use altogether, on account of the caffeine to be eliminated; almost invariably total abstinence from alcohol. The tobacco used must be reduced in amount, and sometimes absolutely withdrawn. Sometimes it is wise and necessary to stop the ingestion of all meat and fish.

"Drugs that are likely to cause an increase of blood pressure or to increase nervous irritability and tension, or are excitants, should not be used unless the indication for them is positive. Such drugs are most of the cardiac tonics and stimulants, strychnin, quinin, and the salicylates."

As in the past, we again call the attention of those who are growing old and of those who expect sometime to grow old, to the fact that the foods which must be interdicted when one feels that he must go slow or drop out of the race, are the foods to stop using before that time. If these foods hasten the process after it has gone so far that we are forced to take notice of it, they must have been hastening the process during its insidious stage.

# THE MEDICAL MISSIONARY AT WORK



## A SAD PICTURE

J. M. Cole

**I** SAW a picture recently that will never be forgotten as long as I live. It fills me with horror to the present day. We were returning from our meeting in Lau, Fiji, and had reached Waibokasi, when our boat got stuck in the mouth of the small river at low tide. We left the boat with the natives till the rising tide would float it out into the Rewa River. We decided to take a small steamer and run down to Suva, as the boat we had been on might not reach Suva until late the next day. Pastor Stewart and wife and I walked across the point to where there was a wharf. We understood that the steamer called there at about 9 A. M., so we did not hurry, as there was plenty of time and the sun was hot. But we saw men and women (Fijians and Indians) hurrying to reach the wharf, where was a small steamer and a large number of people. We hastened, fearing that we were late, but found it was not the steamer we wanted.

Upon another boat towed by this little steamer there were perhaps between forty and fifty Fijians and Indians, men and women, some young, some old. Standing on the wharf and on the bank of the river were upwards of four hundred Fijians and Indians, with a few white people. They were all crying, those on the boat as well as those on shore. It was no common cry; they were howling and wringing their hands in agony. Their cry is still in my ears. I never before in all my experience saw such distress pictured on the faces of men

and women. Read Zeph. 1:14, and Jer. 25:34, and you may catch a faint idea of the awful scene.

What was it all about? The people on this boat had been found to have the dread disease of leprosy upon them, and the government doctor had to announce them unclean, and forbid them to go among the people. These poor unfortunates had been shut up for a time in the lepers' hospital, and the day had come when there must be a final separation from home and loved ones. Parents, husbands, wives, and children were there for the last time to say good-by. They were to be taken to a lone, distant island, to pine the rest of their lives away among others nearly rotten with the same disease. Some were bowed down with sorrow. Some were holding out their hands to their loved ones, as if saying, "O, help me; don't let me go!" I noticed an old Indian, his face the picture of misery, looking at a woman ashore, no doubt his wife. His sorrow was great, and she was nearly wild. I did not know who suffered the more. One fine looking Fijian woman stood still, not saying a word, only waving her handkerchief to her loved ones, while the big tears rolled down her face. I can not describe the scene.

While the doctor was giving instruction to the officers, a few ran out into the water to kiss their friends once more; yes, kiss the people who had the leprosy. Many of them were beside themselves with grief. Some did not even know what they were doing.

I asked myself, "How should you feel if one of your loved ones from your home was snatched away from you like that, to live a living death, alone and uncared for by loving hands, among a people upon a lone spot, never to see or hear, only by report, from them again?" It touched my heart. I looked behind me, and saw my fellow missionaries weeping also.

When the doctor said, "Pull out and away," and the little steamer towed away its living freight, the howl arose still louder, until you could not hear yourself speak. Some of the younger friends ran down the bank of the river to say another farewell. The older people were so paralyzed with grief that they could not move. From many of these poor souls the last spark of happiness was gone. An Indian woman ran down into the river to hear the last good-by from her husband, and would have been drowned had not a friendly Fijian rushed into the river and rescued her. Others fell down because of their great sorrow, and

had to be helped away. It is impossible to describe what happened there that morning; it can not be told in words. It made us all quite sick for a time.

While we still stood there the doctor came down and requested all who had walked where these lepers walked, or had held their hands, to return at once to the hospital and wash their hands and feet in water prepared for them. They all answered, "Yes, sir, we will."

Leprosy is an incurable disease. It is only the divine, creative power of God that can heal that loathsome malady. Did it ever occur to you that we are all touched with the leprosy of sin? Rom. 3:23. The smallest spot on us will result in destruction. James 1:15. But, bless the Lord, a fountain is opened where we can step in and be cleansed, if we want to be clean. If not, there will a time come when the unclean will be unclean still, and an eternal separation must follow. There will then be "weeping and gnashing of teeth." "The mighty man shall cry there bitterly."



# QUESTIONS *and* ANSWERS

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

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

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

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

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

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

**Foods to Increase Weight.**—"I have faulty nutrition; is there any special food or ferment or diet that will put flesh on, providing my underweight is not due to anything except a certain condition of the digestive organs? I am twenty-six years of age. My weight is about 125 pounds, my height, five feet eight."

Unless there is some reason for faulty nutrition, there is nothing better for you than the ordinary foods, such as grains, milk, eggs, etc. It is possible that your lack of weight is due to failure to digest certain classes of foods. It would be impossible without knowing more definitely regarding your condition, to suggest specific foods. A certain amount of outdoor exercise, abundance of sleep, thorough mastication of food, and especially such food as you relish, would be advisable. Of course you can gain weight only by the use of foods that contain the proper caloric value, that is, they must contain enough of the carbohydrate and fat to supply the body, and besides give an excess for the production of surplus fat. Leanness is with some persons a constitutional matter. Some lay on fat with a very light diet, because everything they eat is thoroughly digested, and is not properly burned up; other people by nature do not lay on much fat, no matter what they eat, and can do so only with considerable difficulty.

**Relief of Teething Baby.**—"Do you think it would be injurious to rub a baby's gums with the best of raw whisky to make them quit hurting and itching? I believe it would, though Mr. E says he thinks not."

I agree with you that there is some danger in rubbing the gums with whisky, not an immediate danger, but a remote danger that you may possibly establish a taste that will manifest itself later in life. I should rather suffer a little inconvenience than give her even a taste of liquor, for even women, you know, can form such a taste. I am fully aware that

a taste is not a habit, but there is a possibility that one may lead to the other. Why not rub the gums with the finger without any whisky?

**Uric-Acid-Free Foods.**—"What foods are to be avoided to prevent the formation of uric acid? Can you give a list of a few common foods that ought not to be used?"

The foods that are considered to produce uric acid are the meats, especially the red meat, eggs, to some extent, stimulating beverages, tea, coffee, and cocoa, and certain of the vegetable foods, especially the nuts and oatmeal, which seem to contain the purin substances even more plentifully than some of the animal fats.

**Coffee as a Laxative.**—"Has coffee any value as a laxative?"

I know of no such value. At any rate, there are laxatives that are much less liable to be deleterious.

**"Cafe au Lait."**—"Does the use of milk or cream in tea and coffee tend in any way to neutralize their deleterious effects?"

Caffein is caffein, and does not change its nature as the result of mixture with milk or other foods. Doubtless a grain of caffein in the form of black coffee would not have a different effect from a grain of caffein in coffee and milk. Of course, if the addition of milk or cream lessens the quantity of caffein, it will diminish its effect by that much.

**Two or Three Meals.**—"Do you favor a two- or a three-meal system?"

I am not sure that it matters very much which I favor. The English and Germans, who eat four or five times a day, seem to thrive under the régime. When physicians have a very sick patient, they feed him small meals at short intervals, perhaps every two hours. If meals are placed so far apart that one has to overload the stomach, in order to

secure sufficient nutrition, it does permanent damage. There are some persons doubtless who do best on two meals; others, I think, are better on three. I am not sure that the Europeans who eat four meals, or even more, are injured by it.

**Drowsiness.**—"What does persistent drowsiness after meal-time indicate?"

Such a condition means chronic indigestion, with perhaps autointoxication. A change of dietary is probably necessary. The patient doubtless needs some treatment to tone up the digestive apparatus. Tonic cold baths are good. Often a vacation for a time disposes of all stomach symptoms. If the vacation conditions can be carried into the home and into the work, it may effect a permanent change for the better. Frequently the condition is not helped except by recourse to a skilful physician.

**Late Eating.**—"Is it ever proper to eat late in the evening, or just before retiring?"

There are some who seem to sleep better after eating a little easily digested food than when they retire on an empty stomach. On the other hand, there are those who are disturbed by having any food in the stomach within a few hours of retiring. As a general rule, it is better to avoid eating late.

**Slow Digestion.**—"What are some of the principal causes of slow digestion?"

Slow digestion is due partly to imperfect formation of digestive fluids, partly, and perhaps principally, to lessened muscular power in the stomach and intestines. When I have said this much, it is something like the ancients explaining how the world maintained its place in space by saying that it was on the shoulders of a giant named Atlas. The next question is, of course, "What maintains Atlas in his place?" So in medicine, the answer to every question needs a further explanation. In some cases slow digestion is partly due to the inability of the stomach to empty itself, either because of a spasm of the muscle at the outlet, or because of some tumor growth. In such a case the stomach gradually becomes more and more dilated, until it is hopelessly enlarged. The only possible relief for a condition of this kind is surgical interference. In most cases difficulty is due to lack of tone, and will respond more or less completely to a change of diet, tonic treatment, avoidance of worry, a new outlook on life, etc. It is this class that is so much benefited by the right kind of vacation.

**Dilated Stomach.**—"What diet and treatment would you recommend for dilatation of the stomach?"

If the case is a severe one, the patient should be in the hands of a physician, or in a sanitarium. In some of the worst cases a surgical operation is the best procedure. In mild forms of dilatation, I should suggest the easily digested cereals, milk, the sweet fruits, and especially bananas, all eaten with thorough

mastication. It should be remembered that each case is one that must be treated on its own merits, and very often an attempt to treat or diet one's self is disastrous.

The use of the girdle recommended by Dr. Abbott in the September number, is excellent. Tonic treatment, as the cold spray or cold sponge followed by friction, is excellent, and the patient should have ample exercise; but one should always stop short of exhaustion. Take rests occasionally. Be careful always to rest after eating.

**Catarrh and Consumption.**—"Is catarrh of the throat liable to go down into the bronchial tubes or into the lungs, and result in tuberculosis? Is catarrh a form of tuberculosis?"

Catarrh itself can not become tuberculosis, but undoubtedly a catarrhal condition may furnish a favorable soil upon which tuberculosis germs may grow more readily. Ordinary catarrh is not tuberculosis, though there are catarrhal conditions connected with tuberculosis.

**Diet and Tuberculosis.**—"What kind of diet is best for one predisposed to consumption?"

A nourishing diet and one that does not tax the digestive organs. Nearly all those predisposed to tuberculosis are weak in digestive powers. Perhaps it is often a malnutrition following a lack of digestive power that favors the advent of tuberculosis. I should make cereals the staple of the diet, including bread, with milk and eggs, and should also make free use of fruits and vegetables.

Some physicians are recommending the use of dilute hydrochloric acid, ten drops in a pint of milk, night and morning, on the theory that the consumptive tendency is a sequence to lime starvation, brought on because the body is unable to assimilate lime. The hydrochloric acid is said to enable the body to appropriate the lime that is in the milk.

**A New "Cereal."**—"What is your opinion of the new instantaneous postum? Where is the coffee flavor obtained?"

I do not know that the postum people divulge the process by which they give the coffee flavor to their latest product. I once knew a company in the West which marketed a "hygienic coffee," which had a decided coffee taste. Inquiry revealed the fact that after roasting a quantity of regular coffee, they would roast in the same pans a quantity of cereal, which would absorb from the pans a certain amount of the aroma of the coffee. As to how hygienic it was, I was never very certain.

**Bakerized Coffee.**—"What is bakerized coffee? Is it harmful?"

Bakerized coffee is claimed by the manufacturers to have the caffeine removed. If their statement is true, such coffee should be equal in value to the cereal beverages, with perhaps the advantage of the special aroma unobtainable in the ordinary cereals.

# SOME BOOKS



**Fresh Air and How to Use It**, by Thomas Spees Carrington, M. D. Price, \$1. The National Association for the Study and Prevention of Tuberculosis, 105 East 22d St., New York.

Dr. Carrington, who has furnished numerous illustrated articles on outdoor sleeping, open-air schools, etc., has in this book given the public a most practical treatise, as full of illustrations that illustrate as an egg is of meat. Along with the illustrations are instructions, accompanied in some cases with plans and details, estimates of cost, etc. The purpose of the book is to give workable directions for the construction of outdoor apartments for sleeping, eating, etc.

To give an idea of the scope of the book, it is only necessary to give a list of the important chapter headings, which include, Window Tents, Roof Bungalows, Wall Houses and Iron Frame Porches for City Use, Temporary Fresh-Air Porches for Country Use, Permanent Sleeping-Porches and Loggias for Country Homes, Methods of Protecting and Screening Porches, Tents and Tent Houses, Open-Air Bungalows and Cottages, Suggestions for Planning New Houses With Open-Air Apartments, Roof Playgrounds for Children, and Clothing, Bedding, and Furniture.

The book begins with an introduction, "The Relation of Fresh Air to Health," and a chapter on ventilation.

In this time when almost every family, whether or not there are any members "with weak lungs," builds a sleeping-porch in their new buildings, this book should find a large sale, not only among those who realize a tendency toward tuberculosis, but also among those who wish to escape such a tendency.

**Sex Hygiene for the Male and What to Say to the Boy**, by G. Frank Lydston, M. D. The Riverton Press, Chicago, publishers, 1912.

The author has attempted to fill the need for a popular treatise on sex hygiene which is at once authoritative and free from cant and quack suggestion.

In a time when even some medical magazines are proclaiming that men's physical necessities are such as to make virtue impossible to the unmarried, it is refreshing to welcome a book of this kind written by a man of the standing of Dr. Lydston.

Though the book is called "Sex Hygiene," it is a pretty good treatise on general hygiene; for the author evidently realizes that one can not be healthy in one function while being reckless as to his other functions. For this reason he has much to say regarding exercise, sleep, diet, the use of narcotics, tea and cof-

fee, amusements, relations of the sexes, etc. and what he says on these subjects is sound. A goodly section is devoted to the anatomy of the male organs of reproduction and one to diseases of the organs of procreation.

The book was not prepared with the purpose of placing it in the hands of boys, but as a manual for parents to consult in order to give proper instruction to their boys. It is a book that physicians could conscientiously recommend to parents for the latter purpose. As the boy grows to young manhood, he can read it with advantage.

**Mouth Hygiene and Mouth Sepsis**, by John Sayre Marshall, M. D., Sc. D. Net, \$1.50. Published by J. B. Lippincott Company, Philadelphia and London, 1912.

A compendium of instruction regarding the structure of the mouth and teeth, and especially of the hygiene of the mouth and teeth as related to health and disease of the body in general. Written in popular language.

There are many filthy and diseased mouths, and most of them diseased because they are filthy, and filthy because they are diseased,—a vicious circle,—and the dentists have begun none too soon their propaganda for mouth cleanliness as a preventive of disease. With the best that they and the doctors can do, it will be a long time before the great mass of the people understand the importance of the proper care of the teeth.

But, like eye specialists or any other specialist, dentists are likely to think that all disease centers in that part of the body to which they have given special study. The dentists certainly have some reason for their propaganda, for doubtless nine tenths of all diseases enter the system through the mouth and nose.

But one would think from this writer's words that longevity is proportionate to the frequency of the use of the tooth-brush. The fact is, many centenarians have never seen a tooth-brush, and many persons who are scrupulous in the care of their mouth, have bad gums and other mouth troubles, usually supposed to be due to neglect of teeth, and die early. In fact, the author's statement, "The teeth of the present generation seem to be inferior to those of their immediate ancestors, while the children of to-day have, as a rule, a greater predisposition to dental diseases than their parents," sounds strange on the theory that the tooth-brush protects the teeth; for never was there an age in which the tooth-brush was used as much as at present.

Again: if this tooth-brush propaganda is such a necessity, why not train veterinary dentists to brush periodically the teeth of our valued animals? The fact is, it is a shame

(Concluded on page 648)



# NEWS NOTES

**To Teach Sex Hygiene.**—The New York State Department of Health has begun a State-wide campaign of education among women and girls of the importance of a knowledge in sex hygiene.

**Diet of Oatmeal in Diabetes.**—It is now generally admitted that oatmeal is beneficial in diabetes, especially in cases which have failed to respond to other measures.

**Philadelphia's New Milk Rule.**—The bureau of health of Philadelphia has forbidden the sale of "loose" or "dipped" milk. Milk must be delivered in bottles, and the bottles must not be filled on the street.

**Infantile Paralysis in New York.**—A number of cases of infantile paralysis were found in a very small area in New York City recently, and it is feared that there may be a general epidemic of the disease in that city.

**Romans Serve Their Bread in Paper.**—According to a recent decree by the municipal authorities of Rome, bread can not be served in restaurants unless it is wrapped in paper, and sealed with the seal of the bakery.

**Louisiana's Children Again on the Stage.**—Louisiana has obtained for itself the distinction of being the first State to take a backward step in child legislation by permitting children under fourteen to appear on the stage.

**Antinoise Congress.**—Five hundred physicians, ear specialists, and college professors from all over the world, met in Boston in August, attempted to devise means to abolish noise. The occasion was the International Congress of Otolologists, or ear specialists.

**Tobacco Consumption in France.**—In 1910 the receipts for the sale of tobacco were \$2,000,000 more than the previous year, and reached almost \$100,000,000. The French government has a monopoly on the sale of tobacco, obtaining part of their revenue in this way.

**Infantile Paralysis.**—Epidemics of infantile paralysis are reported in different widely scattered parts of the country. It would look as though we might have a general epidemic of this very serious disease. The city of Detroit has called for federal aid to stamp out the plague.

**A List of Industrial Poisons.**—Bulletin No. 100 of the Department of Commerce and Labor, recently issued, gives the most complete list of industrial poisons in the English language. It is supposed that the publication of this list will help much in the prevention of some obscure occupational diseases.

**Salvarsan in Rabies.**—In one case of well-developed rabies (hydrophobia) too far advanced for relief by the regular antirabic treatment of the Pasteur institutes, even after the active symptoms of the disease had become manifest, salvarsan was administered with immediate relief and eventual cure.

**Baby Lives Saved.**—According to the Babies' Welfare Association, more than a thousand baby lives were saved in New York City through the agency of the pure-milk stations. There was an enrolment of 13,000 babies during July in the fifty-five milk-stations run by the board of health. Of these 13,000 only eight died.

**New York Medical Colleges to Teach Public Health and Sanitation.**—Plans have been formulated to include in the curriculum of all the medical schools in the State of New York, adequate courses in public health and sanitation. More and more the work of the physician is becoming one of prevention rather than of cure.

**One New Nostrum a Week.**—It is reported by an investigator who has been studying the nostrum evil in order to write a book on secret remedies, that new nostrums are foisted on the public in England at the rate of about one a week. And still they bite! If it is true that "there is a sucker born every minute," it will explain why these supposed cures are such a gold-mine to their promoters.

**Reform at Niagara Falls.**—Because its water supply was from the Niagara River below the outlet of the Buffalo sewers, Niagara Falls has been one of the worst afflicted places with typhoid in this country. The gravity of this state of affairs was increased by the fact that thousands of tourists every year stop in the city, and thus expose themselves to disease, carrying it to their homes and perhaps not realizing where they got it. Last January the city installed an improved filtration plant, and the typhoid rate soon after began to fall off.

**Hookworm on the Pacific Coast.**—Hookworm is quite prevalent in California, not only in the mines, but also elsewhere, as a large proportion, perhaps about one half, of the Asiatics who enter the country have the disease. Recently a gang of Chinese running a vegetable garden within the limits of the city of San Francisco, were found to be infected. As there is a possibility that hookworm may reach the human stomach by the use of raw vegetables as well as by means of the ground itch, the Celestials were quarantined, and their vegetables were barred from the market.



**Children Taught to Avoid Accidents.**—Children of the New York streets are invited by the museum authorities to the American Museum of Safety, to witness a demonstration by means of toy trolley-cars and dolls, in which it is taught how to avoid the dangers of the streets, and how to enter and leave cars. The street railway companies have been asked to carry the children to the museum free of charge.

**Tuberculosis Sunday.**—The National Association for the Study and Prevention of Tuberculosis has assigned Sunday, October 27, as Tuberculosis day, to be used as a day for an educational campaign in the churches by the tuberculosis workers, with the purpose of not only increasing a knowledge of tuberculosis among church-members, but also to elicit their interest in the sale of the tuberculosis Christmas seals.

**The Plague Situation.**—The health authorities, in trapping rats along the New Orleans water-front, found, after collecting several hundred and examining them, that one of the rats was infected with plague. Inasmuch as this was found on a wharf which would preclude its having come from Porto Rico or Cuba, the suspicion was raised that the infection might be quite general among the rodents, and for this reason an extensive campaign has been planned for the destruction of rats in that part of the city adjoining the place where the affected rat was found, including sixty blocks. Beginning at the center and working toward the river, all rats will be killed.

**Composition of Mother's Milk.**—The analysis of 143 samples of mother's milk in one of the poorer districts of Birmingham, showed that there is practically no difference in the quality of milk from weakly women and very robust women, but there was a decided difference in favor of milk obtained on the five days of the week when a substantial meal was given to the mother. On the other days of the week, the quality of the milk fell off. It is evident that in addition to insisting that the mother nurse her child, it is also important to see to it that the mother herself be properly fed.

**New Translation of Tuberculosis Essay.**—The new (seventh) edition of Dr. S. Adolphus Knopf's international prize essay, "Tuberculosis as a Disease of the Masses and How to Combat It," has just been translated into French by Dr. Eugene Grenier, of the Bruchesi Tuberculosis Institute of Montreal. The proceeds of the sale of this book will be for the benefit of the institute. The first translation of a former edition into French appeared some years ago in Paris. Dr. Grenier's new French-Canadian translation represents the twenty-eighth foreign edition, which, with the seven American ones, makes thirty-five editions in twenty-four different languages which have appeared within the last ten years. Dr. Grenier's translation is on sale at the Librairie Beauchemin Limitée, 79 rue Saint Jacques, Montreal, and at its branch store in the United States, 20 Mechanic St., Worcester, Mass. The price is the same as the American edition, 25 cents a copy.

The best antiseptic for purposes of personal hygiene

# LISTERINE

Being efficiently antiseptic, non-poisonous, and of agreeable odor and taste, Listerine has justly acquired much popularity as a mouth-wash, for daily use in the care and preservation of the teeth.

As an antiseptic wash or dressing for superficial wounds, cuts, bruises, or abrasions, it may be applied in its full strength or diluted with one to three parts water; it also forms a useful application in simple disorders of the skin.

In all cases of fever, where the patient suffers so greatly from the parched condition of the mouth, nothing seems to afford so much relief as a mouth-wash made by adding a teaspoonful of Listerine to a glass of water, which may be used *ad libitum*.

As a gargle, spray, or douch, Listerine solution, of suitable strength, is very valuable in sore throat and in catarrhal conditions of the mucous surfaces; indeed, the varied purposes for which Listerine may be successfully used stamp it as an invaluable article for the family medicine cabinet.

Special pamphlets on dental and general hygiene may be had upon request.

**LAMBERT PHARMACAL COMPANY**  
LOCUST AND TWENTY-FIRST STREETS :: ST. LOUIS, MO.

**Encouraging Large Families.**—The city of Paris is planning to spend \$40,000,000 in the erection of lodging-houses to be rented chiefly to families having more than three children under sixteen.

**Medicated Wines.**—Dr. Mary Sturge reported to the British Parliament committee on nostrums the fact that many medicated wines are put upon the market having an alcoholic strength of eighteen to twenty per cent; that many of these wines contain cocaine, and others contain meat extracts. The fancy names given to them give no hint that they contain alcohol. Though great claims are made as to the nutritive value of some of these beverages, none of them comes up to the ordinary beef tea in nutritive value, and that is not saying much. Some of these drinks, it seems, have been used by teetotalers and their families, in the belief that they were non-alcoholic, and some cases of drunkenness have resulted from their use.

**Private Encouragement to Large Families.**—Mr. Chas. Stern recently completed a number of buildings in Paris, everything completely sanitary, and all rooms opening on to the street or garden. The rents are low, and it is provided that when a tenant has another child, there shall be no rent paid for the term following the birth. Thus Mr. Stern furnishes sanitary houses to laborers at low rates, but more than this, he encourages larger families, and he applies the revenue, about three per cent, to the maintenance of a place where free breakfasts and dinners are given to every mother who nourishes her own child. This is an especially wise provision, for it has been learned that children of feeble and healthy mothers do not differ much in strength, except when the mother does not have sufficient food.

**Quantity Versus Quality.**—The president of the British Medical Association, in his annual address, took eugenics for his topic. He showed that nature keeps up the quality of its product by allowing the poorer to die without reproducing. Recently we have been reversing this process by preserving all the sickly ones by every means within our power, and at the same time we are not doing anything to establish a selective birth-rate by discouraging reproduction by those who are unfortunate and unfit. At the present time, the race is being perpetuated by the most unworthy classes, and doctors are even joining in the cry of race suicide, and urging a greater quantity instead of high quality. A high birth-rate, says this physician, is nearly always accompanied by high death-rate, and a low birth-rate by a low death-rate. The former method was nature's method, but it is too barbarous for us. We had to save all the babies possible; but now in order to avoid rapid deterioration, we must work to breed intelligently; that is, by only those who are fit.

**The Danger of Pellagra.**—A Louisville physician read the following not very comforting words at the June meeting of the American Medical Association, in a paper

pleading for an early diagnosis of this disease: "That pellagra is getting to be one of the most serious problems with which we shall all have to deal in the next few years, nobody can deny. It is certainly assuming alarming proportions, and is slowly but surely pressing its way into the Middle and Northern States. It looks as if it were going to become epidemic all over the United States, and at present it is almost epidemic in the South." This physician believes pellagra to be due to a parasite (trypanosome) carried by some migratory bird, probably the black-bird, which, passing north in the spring and returning south in the fall, would convey the infection while passing. This would account for the seasonal incidence of the disease.

**Not a Good Lubricant.**—We are creditably informed that in the early days of the nut butter industry, a good brother in Victoria, Australia, had a hand-mill and was manufacturing this delicacy in a small way. A friend in Launceston, Tasmania, ordered a quantity shipped to him. He was not on hand to claim it when it came into the hands of the custom-house officers; and as it had no label indicating its contents, the officers opened it in order to determine its nature. Never having seen anything like it, they were puzzled, but finally noted in their memorandum-book "an inferior quality of axle grease." We are of the opinion that their judgment as to its quality as a lubricant was excellent. And it is a question, whether it would serve an axle any worse than it has served some stomachs. However, it has an abundant supply of nutriment in the form of protein and fat for those whose stomachs can stand it.

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(Concluded from page 645)

that man needs a tooth-brush, except for esthetic reasons. Probably if man ate as he should, he would need no such mouth scrubbing, tooth scrubbing, and tongue scraping in order to keep himself from festering away; and a new school across the water is beginning to propagate the teaching that, with proper diet, teeth decay can be checked without the aid of a brush.

However, under present conditions of living, the brush is a very evident necessity, as are periodical visits to the dentist in order to detect injuries to the teeth and gums before they are gone too far for repair. The author does not believe much in the use of tooth-powders and tooth-washes. He asserts that if the mouth is properly cleaned at frequent intervals by means of a brush and silk floss, there will be no need of dentifrices.

Altogether, the book is a sane and scholarly one, and should have a circulation among parents, teachers, and others who can have an influence in molding the habits of the younger generation. It is hardly necessary to say that not much can be accomplished in molding the habits of the "grownups." It would not be just to this author to omit mention of the fact that he lays due emphasis on the use of foods that will not favor fermentation and the growth of germs of decay.

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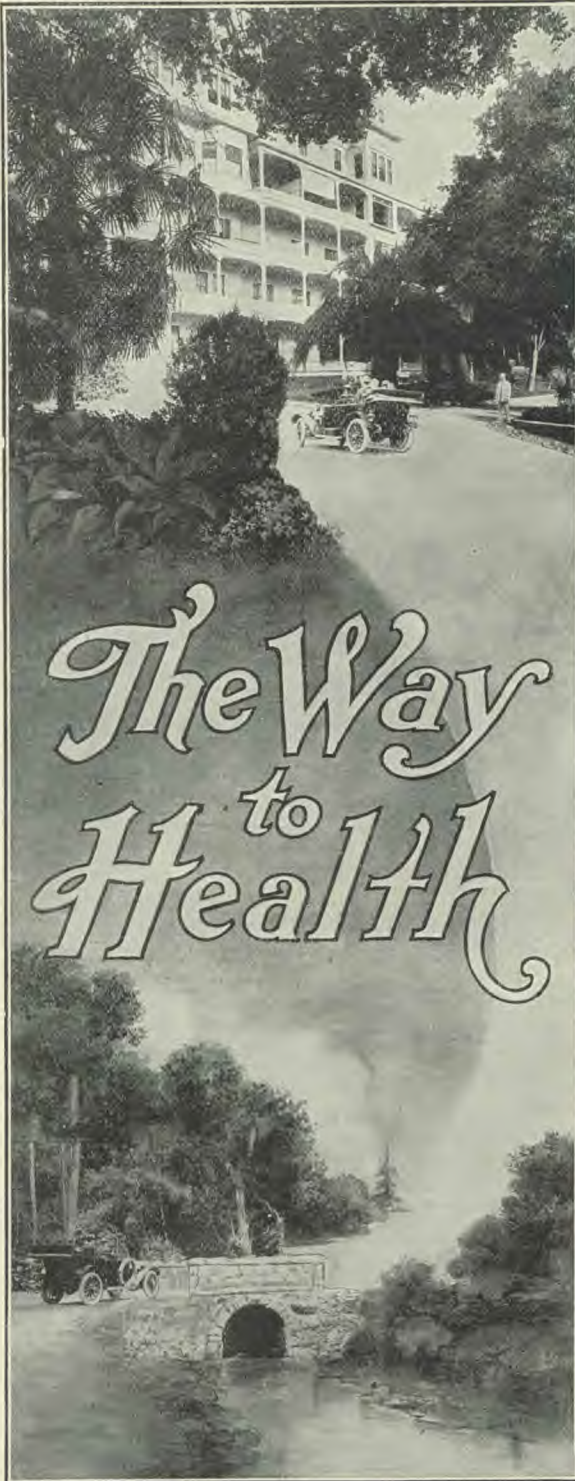
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