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THE NATIONAL HEALTH MAGAZINE

October 1916

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LIFE AND HEALTH

October, 1916

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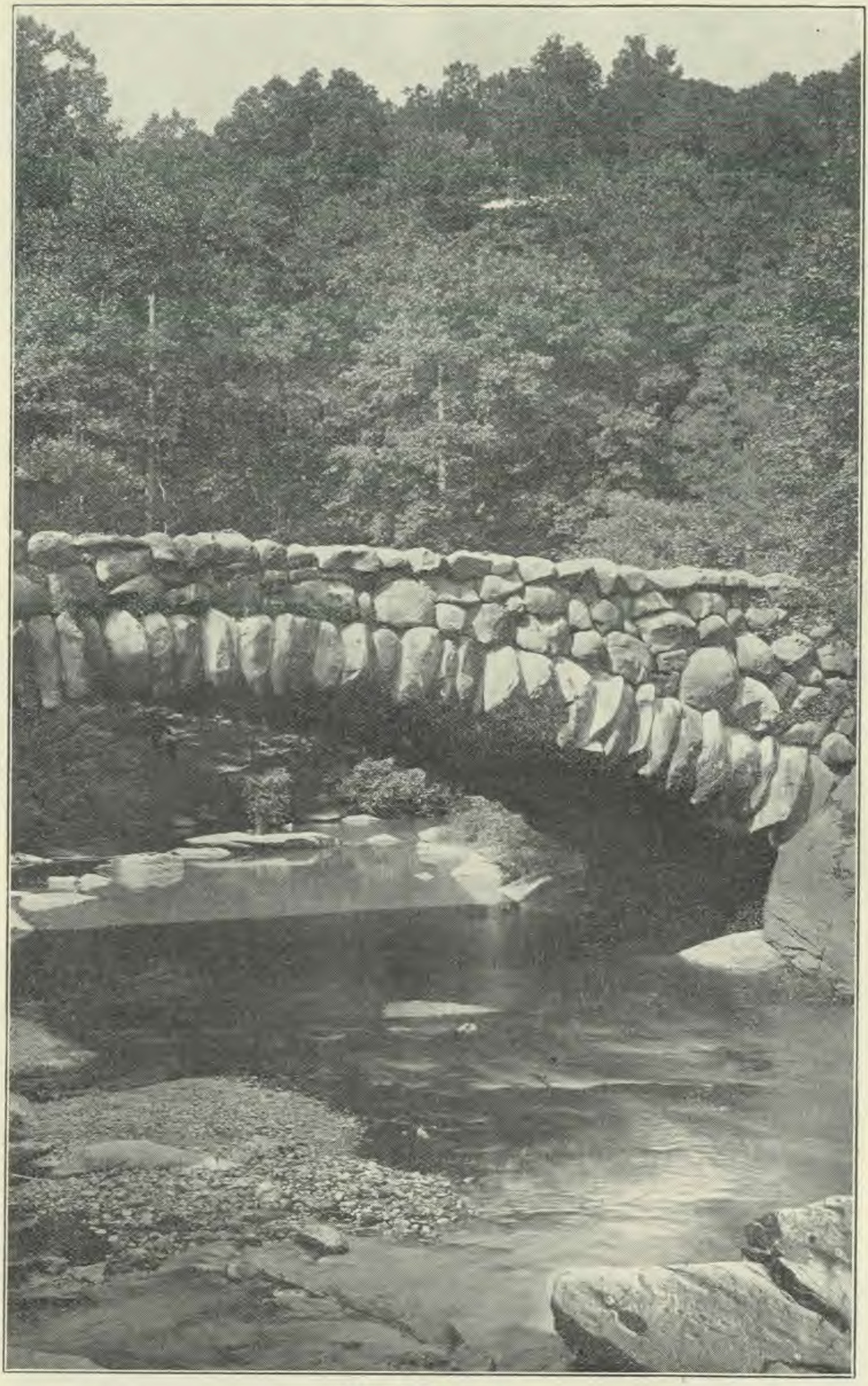


NATURE AND ART

Not infrequently the art of man so harmonizes with the general scheme of the landscape as to enhance the effect.

VOL. XXXI
No. 10

Life & Health
THE NATIONAL HEALTH MAGAZINE

OCTOBER
1916

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

G. H. HEALD, M. D., Editor — L. A. HANSEN, Associate Editor

A STATEMENT OF HEALTH PRINCIPLES

A SYSTEM of health rules should be comprehensive enough to include all the essentials of health. Certain things should not be overemphasized to the exclusion of other things that may be equally important. Extreme positions do not help the cause of health reform. Hobbies do not carry very far in the right direction.

The following statement of health principles was adopted at the Medical Convention held recently in Madison, Wis., photograph of the delegates to which we give in this issue: —

"1. The control of appetites and passions; self-control instead of self-indulgence.

"2. The use of wholesome and nourishing foods, containing the necessary food elements in proper proportion.

"3. Abstinence from the use of alcohol and tobacco, tea and coffee, flesh meats, rich and highly seasoned foods, irritating spices and condiments.

"4. The limited use of sugar and pastry foods.

"5. Simplicity in variety and amount, and in the scientific combination and preparation of foods.

"6. Proper clothing of the body as relates to warmth, protection, simplicity, and modesty, avoiding constrictions and improperly adjusted weights.

"7. Sufficient and appropriate exercise, especially for those whose work is sedentary.

"8. Abstinence from the use of poisonous drugs, above all, avoiding the patent medicine habit; and an intelligent application of the principles of rational treatment, as represented in the proper use of water, air, food, electricity, massage, and other natural physiological stimuli and therapeutics.

"9. Strict cleanliness of person and premises.

"10. Proper and sufficient hours of sleep and relaxation.

"11. Proper and sufficient ventilation of churches, schools, dwelling houses, and especially sleeping-rooms.

"12. Activity in the warfare against flies, mosquitoes, and all other disease-producing and disease-carrying insects."

We submit the above outline as a consistent declaration of the fundamental principles of health. We believe it is broad enough to permit the practice of everything essential to healthful living, and restrictive enough to forbid the things recognized by most authorities as harmful.

L. A. HANSEN.

THE NATURE, CAUSES, AND TREATMENT OF CONSTIPATION — NO. 2

G. H. HEALD, M. D.

The first article of this series gave a brief description of the anatomy and functions of the digestive tract, and a discussion of the nature of constipation.

Constipation is so prevalent that many do not realize to what an extent it is a contributor to more serious and life-shortening maladies. Those who have trouble with the bowel function should not neglect it, but should do all in their power to obtain permanent relief.

Organic Causes

THERE may be strictures of the bowel, adhesions, "kinks," and the like, requiring surgical interference; but most frequently constipation is functional in its nature, the result mainly of faulty habits of life.

The habitual use of food without sufficient residue is an important cause of constipation. Normally the menu should contain a considerable amount of indigestible matter to give bulk and to furnish the necessary physiological stimulation to the bowels. In some cases the exchange from white-flour bread to coarse whole-wheat or Graham bread is sufficient, without any other measures, to correct constipation. Other foods which leave insufficient residue are milk, eggs, meat, and white or polished rice. If the diet consists largely of such foods to the neglect of the coarser foods, such as the whole grains, including unpolished rice, the fruits, and the fibrous vegetables, the tendency will be to have irregular and delayed bowel action. There is an exception, however, in the more rare form of spastic constipation, in which coarse foods are injurious, as will be explained later.

Another cause of constipation is the failure to drink sufficient water. If an insufficiency of fluid is taken, the tendency is for the bowel contents to become abnormally dry.

The use of easily fermentable foods in some cases results in certain fermentations, with the formation of gas, which may be followed by delayed peristalsis, or constipation. In some cases fruit, instead of favoring a movement, ferments, with the formation of great quantities of gas, and consequent abdominal distress and delayed bowel movements.

A sedentary habit with neglect to exercise the voluntary muscles has an unfavorable effect on the involuntary muscles which control the movement of the intestinal contents. Moreover, the voluntary abdominal muscles, which aid in emptying the bowel, are involved in the general muscular weakness.

The use of corsets tends to constipation in at least two ways. It disarranges the abdominal organs, forcing the intestine down in such a way as to increase the folds or "kinks." Any one who has sprinkled a lawn knows what occurs when there is a kink in the hose. The flow stops. Imagine a more or less permanent kink in the bowel caused by the external pressure of a corset. Another way in which the corset interferes with bowel function is in weakening the abdominal muscles.

Normally there is a time each day — usually after breakfast — when the bowel contents reach the last portion of the bowel, known as the pelvic portion, or rectum, and there is a desire for relief. Those who always heed this warning and immediately seek relief rarely experience the ill effects of constipation. They may suffer a temporary delay when on a diet deficient in coarse material, but the restoration of a right diet will remedy the matter. But the person who has continually neglected nature's call, gradually finds that these calls come at greater intervals, and are feeble at best. It is then that a bad matter is likely to be made worse by the use of cathartic drugs. The bowel, having been made insensitive, is rendered still more insensitive by the artificial stimulation.

The habitual use of enemas or suppositories results not much better than the use of cathartics. This is not to say that an enema, a suppository, or even a cathartic should never be used. As an emergency measure either may be productive of good, but as a routine measure all are capable of causing more harm than good.

Classes of Constipation

The common form of constipation is *atonic constipation,* characterized by inefficiency of the intestinal muscles, insensitiveness of the nerves, and more or less sagging of the intestines.

A rare form is *spastic constipation,* in which there is irritation and overaction of the muscles, especially the sphincter muscle. The symptoms are infrequency of movement, the stools being in the form of hardened masses which may not be larger in diameter than the little finger or a lead pencil. There may be colic, considerable pain, and some blood.

CAUSES OF CONSTIPATION

Poorly selected diet.
Neglect of calls of nature.
Sedentary life with neglect of exercise.
The use of the corset or other constricting garments.
The use of cathartics.

Accompaniments of Constipation

The retention of the intestinal contents for long periods favors the multiplication of putrefactive germs and the consequent formation of bacterial poisons in greater quantity than the body can readily dispose of. The result is auto-intoxication, which may be manifested by foul breath, headache, want of appetite, drowsiness, loss of memory, inability to do mental work, and a host of other symptoms. Moreover, when the tissues are overwhelmed by intestinal poisons, they are less able to resist the inroads of infective germs; so one in this condition is more liable to be a victim of epidemic disease.

Stomach trouble, or indigestion, may accompany constipation, both as a cause and as a result.

Rupture is not infrequently a result of straining at stool. From the same cause there may result emphysema of the lungs, and even cerebral hemorrhage, or apoplexy.

Hemorrhoids, or piles, are liable to be present in persistent constipation.

There may be other rectal abnormalities, such as anal fissure, a condition in which the mucous lining of the orifice is ulcerated, as a result of the effort to empty the bowel of hardened contents. When there is a fissure, defecation is extremely painful, and the patient in his dread is liable to postpone matters, thus adding to his difficulty.

Prolapse or rolling out of the lower portion of the rectum is another very troublesome result of persistent constipation, and follows violent straining.

Fistula follows the breaking of a rectal abscess, which may have developed as a result of injury from the retention of hardened masses. These local conditions necessitate surgical aid by a competent specialist. Too often the supposed "specialist" is a quack in no way qualified to perform such work. A patient should not intrust himself to any one but a conscientious regular physician who has a good reputation in his community.

Chronic constipation often alternates with attacks of diarrhea. It would seem that the retained, fermenting mass finally sets up an irritation which causes excessive bowel action, to be followed by another period of constipation. Often during the period of diarrhea, when the stools are fluid, there is more rapid absorption of poisons, and for the time the patient has severe symptoms of poisoning.

Treatment

The first important measure is to determine, if possible, the cause, and correct it. The usual causes of constipation are given in the insert on the preceding page.

But a removal of the causes will not be sufficient to cure well-advanced cases, for the changes in the bowels and in their habits have formed a vicious circle which will perpetuate the evil unless active measures are taken to check it.

Some of the things which will tend to perpetuate constipation are: —

Insensitiveness of the bowel to its normal stimulation;

Insensitiveness of the rectum to the pressure of fecal matter;

Hypertrophy or overgrowth of the sphincter muscle;

Bagging or pouching of the lower bowel by the pressure of retained feces, so that it is no longer able to force the contents along.

The first measure in importance is the establishment of a habit of regularity. It can be done. Select a favorable time, say shortly after breakfast, and make it a daily practice to go to the toilet at the appointed time, whether you feel like it or not. Take time. Wait patiently. Do not attempt to hasten matters by violent straining. For some time, perhaps, there will be no results, but do not lose heart. Persist in keeping your appointment every morning without fail. Let nothing interfere with this. If there are piles, it may be better to select a time shortly after the evening meal.

Next, be sure that you are clothed properly. Any constriction about the abdomen tends to impede the intestinal functions and to retard recovery. No woman who continues to lace can hope for a complete cure of her trouble.

The next article will give directions for the treatment of constipation by diet and exercise.

THEY STILL HANKER AFTER THE DIET OF THE EGYPTIANS

HORMONES [1]

J. E. CALDWELL, M. D.

CONCERNING the important subject of hormones none will claim exhaustive knowledge. Those who have delved the deepest into this fascinating subject are well aware that comparatively little is yet known regarding hormones, or internal secretions, the subject of this article.

A list of the organs which secrete hormones furnishes us some surprises. For many years, to my knowledge, the functions of some of the ductless glands — the pineal gland, the spleen, the thymus and thyroid glands, and others — were entirely unknown or were subjects of debate and wide difference of opinion among physiologists. Larger experience, better means of investigation, and, above all, a more earnest spirit of research by a large number of able men, have contributed to an increase of definite knowledge. Today a new physiology has developed, and men able to teach tell us more or less clearly of the functions of the pineal gland; of the pituitary gland, the function of one lobe of which differs from that of the other; of the function of the suprarenal capsule, whose cortex is said to produce one effect, while its medulla produces another effect; of the parathyroids, four or more little bodies near the thyroid gland, the physiologic importance of which seems to be altogether out of proportion to their diminutive size; and even of the hormone-producing function of the mammæ, of the testes, and of the ovaries, different portions of which produce hormones having different offices to perform. Our teachers tell us, also, that even the liver and the kidneys generate hormones, and that the mucous membrane of the duodenum and of the pylorus produces secretin, an important hormone vitally connected with the digestive function of all mammals.

We are taught by the best authorities that both the breaking down and the repairing of tissues, and all the activities of the digestive, circulatory, and reproductive systems, are more fully under the control of hormones than of the nervous system, the paramount influence of which was so confidently taught a few years ago.

Among the more prominent of the teachers giving out these facts and opinions may be named Ott, Simpson, McCallum, Klotz, Beebe, and Sajous. Indeed, the literature of this new physiology in America has become so voluminous that the ordinary student cannot hope to examine it all; while in Europe a system of therapeutics based upon these teachings has developed until it has become quite general. Opotherapy, as the French call it, is said to be much more commonly used in Europe than it is in America. In Harrower's new book, "Practical Hormone Therapy," we have an admirable compilation of much that has been taught, already classified and tabulated, with conservative therapeutic suggestions.

In the last decade of the nineteenth century we thought we had wonderful light in the definite, clear, and startling revelations of truth concerning the activities of the peptic glands, brought to us by the translation into English of the works of Pawlow, the Russian scientist. And we had. Though they were novel, and at that time entirely unique, I have never heard their correctness called in question. In the higher and better form of therapeutics springing from a knowledge of digestion in health and disease, namely, in dietetics, the teachings of

[1] Perhaps one of the best definitions of this word is that given last year before the Royal Society of Medicine by Professor Starling himself, who originated the name "hormone," soon after he and Bayliss discovered and described secretin in 1902, in the research laboratory of University College, London. His words are as follows: —

"By the term 'hormone' I understand any substance normally produced in the cells of some part of the body and carried by the blood stream to distant parts, which it affects for the good of the organism as a whole. The hormones are thus chemical means of correlation of the activities of the different parts of the body. Their action may be either the increase or diminution of function, or the alteration of nutrition or the rate of growth."

Pawlow and his fellow investigators have done much for science, and hence for humanity. But still more wonderful and more intensely interesting are the facts brought to us in the revelations given concerning the system comprising the various glands producing hormones.

Pawlow told us that the peptic glands seem nothing short of purposive in their activity, and so definite in their work that each varying kind of food employed calls out a special quality as well as a definite quantity of gastric juice, always the same in all healthy animals under the same given circumstances.

The new physiology teaches us that all the varied functions of all the organs of the body are under the direct control of these chemical messengers, or hormones, manufactured in some distant organ and furnished at just the right time and in the needed quantity to make for the good of the animal economy. They tell us that these hormones are furnished in pairs or groups which antagonize each other. As muscle antagonizes muscle in the motor system, thus securing coordination in the movements of the various members of the body, placing all under the control of the will, so these hormones antagonize one another in their effects, giving coordination of function throughout the body. For example, the thyroid hormone tends to stimulate the heart to more rapid action. One of the various symptoms of overactivity of the thyroid gland is rapid heart action not associated with fever. We have evidence that in the blood of those whose thyroid glands have been removed there is a chemical substance which retards the action of the heart. Under the influence of these antagonizing forces the action of the heart in health may be held under control.

Again suprarenalin, one of the hormones of the suprarenal capsule, is believed to stimulate the storing of glycogen in the liver, while a hormone produced in the pancreas inhibits this function. When these two forces are acting together in the healthy, the amount of sugar produced is just enough for the system. If these hormones are unbalanced, ill health follows, one manifestation of which is diabetes, or an excess of sugar in the system, giving glycosuria.

Pawlow's teachings suggest that the Creator is a physicist and a psychologist. The new physiology teaches that he must also be an all-wise chemist; for the organs producing these wonderful chemical substances now believed to be essential to the coordination of the activities of all these organs, mutely declare in unmistakable accents, clear and strong, "The hand that made us is divine."

As the skin and the kidneys are known to be complementary to each other in the performance of their common excretory function, either organ being able to take up more than its ordinary amount of work in order, to some extent, to assist the other when accident or disease makes it necessary, so some of these glands which secrete hormones seem complementary to each other. Two or three of them sometimes share the work of stimulating or inhibiting the activities of certain important organs.

Some enzymes are also hormones. We are all well acquainted with the common use of hydrochloric acid as an aid in certain forms of indigestion, having been taught nearly a generation ago that it is an ingredient of normal gastric juice, and acts in the digestion of proteins. Now we are taught, however, that as soon as hydrochloric acid, either nature's contribution, as an ingredient of the gastric juice, or that furnished artificially, passes through the pylorus and comes in contact with the mucous membrane of the duodenum, secretin is produced in increased quantity. Carried in the blood stream, this soon reaches the pancreas, which it immediately activates to produce the richest and most energetic of all the ferments, the enzyme trypsin, the pancreatic agent for the digestion of proteins.[2] We are told that this same

[2] What actually takes place, we are told, is this: the secretin releases trypsinogen, which it changes into trypsin under the influence of the so-called "ferment of ferments," enterokinase.

enzyme trypsin may act as a hormone, stimulating tissue change in distant parts of the body, securing increased growth or storing up fat.

Nothing could be more fascinating from the physician's viewpoint than the therapeutic application of these principles and facts. Much good work has been done by hundreds of clinicians in this interesting field of investigation, and some applications of organotherapy, being found dependable, have come into common use; yet much remains to be learned in order to recognize the uses and limitations of these old, but newly discovered, curative agents.

When a child is found not to have enough antibodies in its tissues to resist the poisons generated by the diphtheria germs or the germs of tetanus, we do not hesitate to ask the horse for antitoxin for the child, and we freely furnish it to the child, thus hastening convalescence, or perhaps even saving life. So likewise there should be no prejudice against asking the sheep or the cattle for a supply of secretin to activate tardy organs of digestion, or the mammary gland extract for hemorrhage due to uterine fibroids, or of the thyroids when the patient shows symptoms indicating thyroid insufficiency.

A number of physicians of wide experience have assured us that the hypodermic use of pituitrin in their obstetric practice has been so successful in their hands that it has almost entirely superseded the use of forceps.

In view of the vast amount of study that is being devoted to this subject, may we not expect to see the application of these principles become much more common, and in consequence the healing art more natural, and hence more scientific?

The past twenty-five years have witnessed a marked change in the esteem in which internal drug medication is held, both by physicians and by many of the more thoughtful of the laity. Professional men are viewing with favor the strong trend toward dependence upon natural healing measures rather than the exhibition of poisonous drugs. Hygienic healing is far more popular now than it was a generation ago. Since hormone therapy is, strictly speaking, a drugless method of healing disease, its growing popularity just now seems quite opportune.

In the past few years improvements in the methods of surgery, and successes achieved through bacteriologic investigations, have enjoyed the limelight of popular attention. The internal secretions seem now to be demanding their share of recognition from all who care to keep up with the march of human knowledge.

INFANTILE PARALYSIS

G. H. HEALD, M. D.

FROST, in a fifteen-page article,[1] has carefully discussed the causes and possible means of transmission of this mysterious disease. From his article the facts have been gleaned for the present paper.

The specific cause of poliomyelitis, or infantile paralysis, is a minute organism, or "virus," capable of cultivation outside of the body in a suitable medium. The virus derived from the human cases is capable of causing in the ape effects essentially similar to those produced in man. The only other animal known to be susceptible to infection is the rabbit. In the human body the virus is found, (1) in the tissues and secretions of persons who have died of the disease; (2) in the secretions of persons ill with the disease; (3) in the secretions of the nose, throat, and intestines of persons convalescent from the disease; and (4) in the secretions of the nose and throat of persons, apparently in good health, who have been intimately associated with victims of the disease. Outside the body the virus is found in the dust of rooms occupied by patients, and possibly on articles handled by patients. The probable sources of infection are the secretions from patients, from convalescents, and from passive carriers who have been exposed to the disease.

Experimentally the disease may be transmitted to monkeys by the direct injection of the virus into the brain or other parts of the body, or by rubbing the virus on the mucous membrane of the nose. It has also been transmitted by feeding the virus to monkeys in large doses through a stomach tube.

There is some evidence that it may be transmitted by means of the biting stable fly, and in one instance it seems to have been transmitted by means of the bedbug. The evidence as a whole seems to indicate that infantile paralysis is spread direct from person to person by means of infectious secretions from patients, convalescents, or carriers.

The disease has an almost world-wide range, though it is more prevalent in the high temperate regions than in warmer regions. On the other hand, its season of greatest prevalence is the warm months, though there is no period of the year entirely free from the disease.

Infantile paralysis may be considered endemic (that is, never absent) in the United States and Europe. It is believed that cases occur annually in every State in the Union, and that this has been true for a number of years.

It differs from the usual epidemic diseases in not following regularly the usual routes of travel. For instance, the epidemic of 1907 in New York jumped seemingly to New England without touching many of the cities in closer communication with New York, and reached Minnesota, Nebraska, Iowa, and Kansas without touching Chicago, notwithstanding nearly all traffic between New York and these other places passes through Chicago. In 1910 a rather severe epidemic in the city of Washington jumped to Philadelphia, passing entirely over the intermediate city of Baltimore.

Another peculiarity of the disease is the small number of victims in proportion to the population — seldom more than one in a thousand, often considerably less; and after an epidemic a locality is apt to have a period of freedom from the disease for at least two years. From these facts it is inferred that only a small proportion of the population is susceptible to the disease, and when the susceptibles have all contracted the disease, the epidemic ceases.

[1] "Poliomyelitis (Infantile Paralysis): What is Known of Its Cause and Modes of Transmission," by Wade H. Frost, Passed Assistant Surgeon, United States Public Health Service, in *Public Health Reports*, July 14, 1916.

Another peculiarity of the disease is that it attacks a much larger proportion of the population in the country and in small communities than in large cities. From this it might be inferred that some insect is an important means of transmission, an inference which would also be borne out by the summer prevalence of the disease. At this stage of investigation it is not possible to say that some insect may not be a means of transmission in a certain portion of the cases, though it is probably not an important means of transmission.

The disease does not seem to be more prevalent in places characterized by what are known as bad hygienic conditions,— overcrowding, poor ventilation, insufficient and improper food, and the like. Its greatest incidence is among the young, from fifty to ninety per cent of those contracting it being under five years of age, and most of the rest under fifteen. It is comparatively rare that the disease attacks adults, though they may be carriers and convey the virus to new cases. The age incidence would suggest some means of transmission, such as milk, involving the young more than the old; but no such means of transmission has been proved, and the belief is not that the young are more exposed, but that they are more susceptible to the disease than the old.

The disease has been studied with minute care by many observers in order to determine, if possible, the means of transmission, but with only partial success. In the epidemics studied it has been rare that one case could be definitely traced to a previous case. The evidence is quite strong, however, that transmission is not by means of water or milk, and that the disease is not caused by any environmental condition, or by overcrowding, improper feeding, personal uncleanliness, or even the presence of vermin.

There is, however, one insanitary practice which is certainly open to suspicion, and in making this statement I am not quoting from Dr. Frost. I refer to the use of the common drinking cups, common towels, common eating utensils without proper sterilization, common soda fountain cups, and like *agencies for the spread of saliva.*

Even where every possible care is taken to prevent this means of spread, there is still the possibility of direct spread of saliva from one individual to another by droplets coughed up by patients, convalescents, or carriers; but in view of the fact that common vessels applied to the lips can hardly fail to transmit germs from one mouth to another, this means of passing disease from one to another *ought to cease.*

Some of the diseases besides infantile paralysis which might easily be transmitted by the common drinking cup and other means just mentioned are, diphtheria, scarlet fever, mumps, syphilis, tuberculosis, and that cause of arteriosclerosis and premature old age — pyorrhea.

Why not prepare your children for these unseen dangers by teaching them never to drink from a common cup under any circumstances, and set them a right example? Many of the common diseases which blast lives between forty and fifty are contracted in childhood. I appeal to parents, as they value the health and happiness of their children, not to neglect this important precaution.

PREVENTION OF DISEASE

ALBERT R. SATTERLEE, M. D.

An enterprise, in order to be successful, must be administered in harmony with certain well-defined principles. Every successful factory is directed in accordance with the latest and best suggestions that science has to offer, careful study being given to economy of production and the elimination of waste. Should not as much care and attention be given to the working of the intricate human machine? Public education and popular literature have accomplished something in this direction, but there is still an inordinate amount of disease and premature death, the result of ignorance and carelessness. Dr. Satterlee's paper calls attention to environmental conditions and personal customs which have an influence on the health and efficiency of the individual.

Sanitation of the Home

IN selecting a building site, it is important to ascertain whether or not the ground soil has sufficient sand or gravel in its constituency to permit free drainage of the surface water. In nonporous soils provision should be made for artificial drainage of the surface water that might enter the basement. Fruit and vegetables that are stored in the cellar should be kept as dry and as cold as possible. Frequent airing will prevent mold and premature decay [cellar floors should be of cement]. The floors of dwelling houses should be of hard wood, close fitting and well surfaced. The walls should be decorated by painting instead of papering. Windows should be arranged on opposite sides of the house to facilitate the removal of smoke and dust, and to promote rapid cooling in summer.

Outside the house, broad verandas below and sleeping porches above are desirable for health. Trees should not be allowed to overshadow the house. The roof of the house and the adjacent grounds should be dry, clean, and open to the sunlight.

Personal Hygiene

If there is no systematic removal of garbage, waste from the kitchen should be burned or buried at once. Old rags, floor sweepings, discarded bedding or furniture, should not be left to produce disease.

Boiling water should be poured over all dishes after they are washed. Delicate dishes may be washed in water to which ammonia or lye has been added. The kitchen sink should be treated frequently with these preparations. The hands may be protected with domestic rubber gloves that may be had at a trifling cost.

In cases of sickness the patient should not use the dishes in common with the family.

Cats and dogs not infrequently transmit disease. Sick children often fondle their pets. These animals may visit the neighbors, and thus transmit disease. When, by a sudden attack of diphtheria, scarlet fever, or measles, a child is stricken, there should be an absolute riddance of cats and dogs. Some people question whether it is not better to dispense with such pets altogether.

Personal Habits

As careful attention should be given to the body as is given to the home. Many of the common diseases originate in filth, that is, in uncleanly personal habits. Because of the increased sources of infection, it is necessary to use far greater precaution than was required of our ancestors.

The bath should be adapted to the occupation and the personal requirements of the individual. In hot weather the daily cool bath is a wonderful restorer, and insures against disease. In cold weather the free use of drinking water, together with the occasional hot bath, will assist elimination, and promote the circulation of the blood. Most people are benefited by one or two hot baths a week. If the duration of the bath is not more than fifteen or twenty minutes, it will not be found weakening. A cool sponge bath to conclude, or a shower or spray when convenient, will prevent

taking cold, and add to the benefits derived. Those of early years as well as the aged should avoid much cold water. In debilitated conditions the oil rub after the bath will be found of special benefit.

Upon retiring at night the clothing should be changed entirely. Too much bedclothing is unhealthful. Light wool blankets are preferable to comforts, and should be well aired each day. Fresh air should circulate in the bedroom during the night. The regular use of the toothbrush and a solution for cleansing the mouth is also essential.

A wise precaution against disease is found in cultivating the drink-hunger, not for strong drink but for water. Keep the body craving plenty of fluid for the use of the excretory organs.

Food materials should be carefully selected. Their preparation should not be assigned to the uneducated or the slothful. Cereals should be thoroughly cooked. The fireless cooker is a great saver of time, and secures thorough cooking.

Avoid the hearty evening meal. For most people two meals a day are sufficient. This allows the liver opportunity to act as an excretory organ as well as a digestive organ. This precaution will improve the circulation of the blood, heat regulation, and skin activity.

Many eat too hurriedly. The stomach is not able to masticate food swallowed prematurely. The result is an irritated stomach, an overworked liver, and autointoxication, or perhaps surgical emergencies. Cultivate an appetite for simple foods, using few varieties at each meal, and avoiding condiments, tea, and coffee, and other so-called relishes. The free use of flesh foods, including canned and preserved meat, is doubtless a contributory cause of such ailments as constipation, appendicitis, ptomain poisoning, and perhaps cancer. Mineral oils are assisting to antidote some of the ill effects of constipation. Castor oil occasionally, and in some cases olive oil, will be found beneficial.

Many are overfed and underworked, and would be benefited by a régime allotting them more exercise and a smaller allowance of food.

Precautions

If the eyes are bloodshot, the skin dry, and the lips scaly, there should be no delay in treatment. A brisk purge followed by a hot bath, together with some hot drink, such as lemonade, will often prevent several days of sickness. It is well to omit a meal, and to eat very lightly for a day or two.

Do not neglect medical counsel, nor substitute therefor the advice of the druggist or the drugless "healer." Private advice volunteered by a neighbor or street vender of drugs would better be neglected. Frequently a serious condition exists, and the services of a skilled diagnostician are required. Some by following unskilled advice and neglecting early treatment have been rendered incurable, with resulting deformities, paralysis, or the loss of special-sense organs.

Another pernicious practice, and one which contributes largely to chronic disease, is the habit of taking powerful medicines for trivial ailments. Quinine, strychnine, opium, codeine, heroine, and some of the various coal-tar products are prepared in a manner to deceive the public. The damaging effects upon the blood-making organs, the weakness and inefficiency of the blood cells, and the deranging effects upon the glands of internal secretion, are not at once observed. But degeneracy follows the indiscriminate use of these drugs, and the nervous system becomes effectually paralyzed. It is far better to consult, even though infrequently, a careful physician.

Baby should sleep in its own little bed, and perhaps in its own room, and in the daytime it should sleep out of doors. This will prevent colds, bronchial pneumonia, and other serious ailments. Wrap the child well in its cab, and place it in a safe, sheltered location. Even in cold weather this may

be done with profit; and if ordinary precautions are used, the child will not suffer from exposure.

Health Suggestions

The lung capacity may be greatly increased by careful thought and action. The lower lobes of the lungs, especially, require plenty of exercise. The intake of air at each inspiration may be increased from fivefold to tenfold. As a result of deep breathing, the blood becomes purer, and the heart action is improved. The increased use of the lungs increases their power of resistance to such diseases as pneumonia and tuberculosis. Increased activity of the diaphragm during deep breathing massages the liver, the stomach, and the spleen, and thus increases digestive activity.

Interaction of Mind and Body

The mind has a greater effect upon the bodily health than is generally supposed. A morbid mind creates disease. An inactive mind lowers physical powers. Strong wills preside over strong bodies. If there is a fixed high purpose in life, and a resolute devotion to that purpose crowds the day with useful labor, the result will tend to increased health, renewed vigor, and enhanced efficiency. Mental exercise is quite as beneficial as physical exercise. Mental problems should not be considered beyond the scope of the individual of mature years. Even in advanced years the mind may yet be productive.

As the mind controls the body functions, so the condition of the body reacts upon the mind. A gloomy mind is often the result of indigestion and autointoxication. Recreation is a wholesome stimulant for the brain, and its effects are reflected on every organ. A well-balanced nervous system in a healthy body circulating pure blood will enable the mind to do a superior grade of work.

FLOWING SAILS

A boat scene on the Golden Horn, Constantinople.

SOME REASONS FOR BELIEVING THAT PELLAGRA IS A DEFICIENCY DISEASE

FEEDING experiments, especially in institutions, have led to the supposition that pellagra is caused by a one-sided diet, rich in carbohydrates and poor in proteins, particularly animal proteins. Whatever the essential cause of the disease may be, there can be no doubt that it is influenced favorably or unfavorably according to the diet of the patient, and every one at all familiar with the subject must admit that a one-sided diet as already described is unfavorable to recovery of the pellagra patient.

Recently a group of diseases has been determined to be due to the absence in the diet of certain substances normally present in many foods in very minute quantities. These substances, which have been given the name "vitamines," are removed from foods by certain milling and cooking processes. White rice, or polished rice, the kind usually found on the market, is deprived of its vitamine content. When we eat such rice, we usually take with it milk or cream or some other vitamine-containing food, so we have no trouble; but the native of the Orient who lives largely on white rice contracts beriberi, one of the deficiency diseases. If he is given whole rice, or if with his white rice he is given an extract of the rice polishings, he remains well.

Scurvy is another deficiency disease, which seems to depend on the absence of a certain vitamine, which is present in large quantity in fresh vegetables and fruits. The onset of scurvy is determined, it would seem, not by the long-continued use of salt pork, but by the absence of this vitamine from the diet. Scurvy and beriberi are the two diseases which have been most clearly determined to be due to lack of vitamines in the diet; but it is believed that further investigation will show that there are other deficiency diseases, or avitaminoses (diseases due to shortage or absence of vitamine in the food). By some, pellagra is believed to belong to this class of diseases. It has many features in common with beriberi, and it certainly seems to have some relation to an insufficient and one-sided diet.

The United States Public Health Service has been conducting investigations in order to arrive at the facts, and from time to time articles by one or more of the investigators have appeared in *Public Health Reports*. In the issue of April 14 is an article, "Bread as a Food," by Voegtlin, Sullivan, and Myers, in which these men attempt to show that the changes in the methods of manufacturing flour and of baking bread which have taken place since about 1880, have resulted in the general production of a bread deprived almost entirely of its vitamine content; and that where the remainder of the diet is also poor in vitamines, pellagra is liable to follow sooner or later.

By means of the roller process introduced into the United States in 1878 it was possible to separate the various parts of the wheat kernel so as to get a very white flour, with excellent keeping qualities. But the part discarded in the new process, though poorer in keeping qualities than the "patent" flour, had nearly all the vitamines. In the last fifty years we have been feeding to the stock food containing a large proportion of one of the most essential requisites for human nutrition, and the people, in their fine white bread, got what was left — gluten and starch to be sure, but little or no vitamine. As stated in the article referred to,—

"Other things being equal, the lessened amount of protein, fat, and ash in the highly milled as compared with the undermilled products, while undesirable from the standpoint of nutrition, might be considered as a negligible change when compared with the better-keeping qualities of the newer products, especially in view of the fact that in recent years it seems

impossible to avoid long-continued storage of flour and corn products. The highly milled products, however, are often deficient in certain essential accessory food substances, which are designated as vitamines. . . . It may suffice here to state that it was found that, whereas the corn meal and wheat flour made by the old-fashioned process, which is still in use to some extent in the South, contains practically all of the vitamines of the whole grain, the highly milled products are considerably deficient in these substances."

But it was not the millers alone who were responsible for robbing the bread of its vitamine content. About the time highly milled corn meal took the place of the old "water-ground" corn meal, it was found that the addition of salt and water "did not yield a bread of the same lightness as did the old-fashioned meal.

"Housekeepers, therefore, began to resort to artificial leavening. Baking soda (sodium bicarbonate) became very popular among them. This preparation is used very extensively for this purpose in South Carolina, where one of the writers (Voegtlin) had an opportunity of studying its uses in cooking. Bread made by means of baking soda has under certain conditions a distinctly alkaline taste and reaction."

Recent experiments by Sullivan and Voegtlin have clearly demonstrated the destructive action of alkalies on vitamines, especially at high temperature. The old way of combining baking soda with a sufficiency of sour milk to neutralize the product did not destroy the vitamines.

At present the old meal is replaced by the new process meal, deprived largely of its vitamine, and baking soda is used without sour milk to neutralize it. Here, then, is a very important part of the food of the South deprived of its vitamine content, by both milling and baking processes. This in itself might not prove serious if the remainder of the food contained an adequate supply of vitamines; but this is by no means the case. The diet of the poorer classes in the South contains large quantities of highly milled flour or corn meal, fat pork, molasses, and other foods poor in vitamine content.

These writers believe that the rapid increase in the incidence of pellagra is due to several factors: "(1) Changes in the economic conditions of the population; (2) changes in food production and food supply; (3) changes in the method of cooking food."

The more expensive animal foods — milk, eggs, and meat — are reduced in amount, and these are precisely the foods that are rich in vitamines, and that have been shown to be most useful in preventing and curing pellagra.

So a combination of several factors has worked, it would seem, to bring about the deplorable condition in the South: (1) Removal of the vitamines from the bread by the new milling and baking processes; (2) the use of other foods containing little if any of the vitamines.

According to this it is not necessary to have a flesh diet in order to avoid pellagra. The use of milk or eggs, or even the free use of beans and peas, might answer; but when economic pressure forces a population to use a one-sided diet from which practically all the vitamine is removed, disaster is the result. The writers say, in conclusion: —

"We see, therefore, that several factors seem to have played a rôle in the reduction of the vitamine content of the diet of the people of Spartanburg County during the last twenty years. Most prominent among these influences are: First, the reduction in the diet of vitamine-rich foods (fresh milk, eggs, and meats); second, the introduction of highly milled cereals; and, third, the use of baking soda, which was shown to have a destructive action on the vitamine content of bread. From the most careful and detailed investigation of the dietary conditions of certain communities in Spartanburg County, it is evident that a large proportion of the people, especially in mill villages, live on a diet which is deficient from the point of view of its vitamine content. Wheat biscuits made from highly milled wheat flour and corn bread made with baking soda without the addition of buttermilk are the staple articles of diet among the people, and we have found families in which these foods represented about three fourths of the entire diet. The fact that the above-mentioned influences, which have undoubtedly reduced the vitamine content of the diet, made themselves felt a relatively short time before the rapid increase in the pellagra incidence in this section of the country, furnishes considerable evidence in favor of the vitamine-deficiency theory of pellagra. It will be left for future investigations to prove or disprove the correctness of this assumption for other pellagrous sections of the South."

That pellagra is caused by lack of vitamine rather than of protein in the food, seems to be attested by an article

by Edward Jenner Wood, M. D., in the *Journal A. M. A.*, May 6, from which the following is quoted: —

"Until recent years, in the South especially, corn was simply crushed between two stones, and the power was that of the stream near by. Each neighborhood had its own mill. The only thing removed was the coarse particles of outer skin, or husk. This method of milling has been largely replaced by steam or electric milling. By this process the corn is subjected to heat in order to loosen the outer coarse husk. Our attention at this time is directed to this portion of the industry to determine how much heat is employed. In the modern mill, in which these observations were made, the heat is a negligible quantity; but it must be remembered that 120 C. is sufficient to destroy any vitamine that may be contained. This part of the work, therefore, cannot be too strongly emphasized. After the heating process the grain is passed into a 'degerminator,' which removes the germ. This is done because the germ contains such a large amount of fat that rancidity would soon occur if it were left in the meal. Besides this, the germ would give to the meal a yellow color, which by modern standards is counted undesirable. The offal, which contains the germ, husks, and bran, some flour, and flinty portions of the grain, constitutes about 30 per cent of the entire weight of the grain. It is known as 'corn chops,' and is fed to the cattle. The remaining endosperm, after the removal of the offal, is finely ground, and the product is known as granulated corn meal; but in this article it will be referred to as milled meal.

"Nightingale found that prisoners who had been fed on whole meal ground in the jail did well, and were free from disease. Owing to a crop shortage, he was forced to use milled meal, and there soon developed a disease for which he coined the term 'zeism,' thinking it to be an undescribed condition. The symptoms were symmetrical erythema of the exposed portions of the body surface, sore mouth, digestive disturbances with diarrhea, and even mental symptoms. He says that it somewhat resembled pellagra, but was not that disease, even if an acute form of it occurred. In 1905 the failure in making the diagnosis was because we did not recognize an acute form of pellagra which is unknown in European literature. A careful reading of Nightingale's paper will convince any one who has seen pellagra in America that this disease could not be otherwise diagnosed. Certainly if it is not pellagra, then the disease going by that name in the United States has been erroneously classified. No better animal experiment will ever be done than this experience of Nightingale to confirm the correctness of our belief that the protective vitamine is removed from corn by the present method of milling. He says that after he found that commercial corn meal caused the trouble, he secured a fresh lot of corn and had it hand milled in the jail. The result of its use is declared 'immediate and magical.'

"Following the general plan of investigation in polyneuritis gallinarum, pigeons were selected for feeding experiments. One group was fed the best commercial meal on the local market. The result was very striking. Polyneuritic symptoms developed almost at once, and other symptoms which are exceedingly suggestive of pellagra. Among these are redness of the legs, weakness, and loss of feathers, with the prospect of prompt death. The next group of pigeons were fed on the best corn, which was not kiln dried, and it was ground in the laboratory at the feeding time. These pigeons have made a striking contrast with the former group. In spite of the fact that the only food allowed was corn, they have remained perfectly healthy and active.

"In a search through the mountains of North Carolina, I have found no cases of pellagra in those counties removed from the lines of railroad travel. The mountaineer lives on much the same food and in equally as unhygienic conditions as the lowlander, but there the difference in the corn is again quite striking. The mountaineer is too far away from the railroad to get milled meal, so he must send his corn to the local mill, where it is ground in small amounts at a time, and the whole grain is eaten, giving him the necessary protective substance. The man in the low country can get the meal from the village store, and thereby save the time and labor of a man and a mule to send to the mill. In so doing he fails to get the protective substance, and unless his diet is otherwise adapted to supplying the vitamine, pellagra should naturally follow. In an eastern county remote from railroad travel, there are broad areas where pellagra has never been seen, and it is notable that the people eat water-ground whole meal. In all other respects this county seemed to be peculiarly suited to pellagra, and the fact of its absence has always been very puzzling.

"Beriberi occurs sporadically among those who never eat rice, but it will never be a great economic problem except in those countries in which rice forms the chief food. Pellagra, likewise, may occur in those who never eat corn, but will probably never reach any proportions except in corn-eating people. Both diseases are deficiencies, and the deficiencies may, and frequently are, made up by other wholesome vitamine-supplying foods, even when deficient grain is eaten.

"These observations lead me to believe that it is probable not only that pellagra is a deficiency disease, but also that the deficiency can be definitely placed in the modern method of corn milling. It would appear, therefore, that the eating of the whole grain in corn countries will stop the ravages of pellagra. Deterioration of corn is productive of pellagra because the germ is the portion of the grain most subject to the action of molds and animal parasites."

While this evidence is not final, yet it furnishes strong presumptive evidence that we are finally on the right track regarding the cause of pellagra.

THE BLESSED LESSON OF OBEDIENCE

HELEN DODS, R. N.

The wiseacre who made caustic criticism of the fact that many of the instructions for the rearing of children are given by *misses*, was evidently not aware that some of these same "misses" are much better qualified, through training and practice, to instruct in the rearing of children than are most mothers. The following, from an article by Miss Dods, which appeared in *The Nurse* (Jamestown, N. Y.), June, 1916, will convince the reader that Miss Dods knows whereof she speaks: —

WE all know that the woman who thinks herself best qualified to give advice to mothers is the one who has no children of her own; but while I seem to stand convicted, I do really plead "not guilty," for scattered here and there about the country are any number of children whom I call "mine own." Many of these children I mothered for weeks and months at a time. In this way I not only had experience with the young babies, but was able also to watch their later development.

I found that the children who had been trained early to regular habits were much more obedient than the children who had not such training. In short, obedience seemed second nature to them. To go to bed unquestioningly and to eat regularly were matter-of-course observances, and the mother who had been wise enough and unselfish enough to work for the good of her child found that all lessons in obedience came more naturally and easily with the trained than with the untrained child.

I use the words "wise" and "unselfish" advisedly. It is easier not to train a baby to regular habits than to do so, that is, for the majority of people. For most mothers it is easier to take up a baby every time he cries, to rock him and carry him, and all the rest, and it is an unselfish woman who thinks of the good of her child rather than her own inclination and pleasure.

Babies are little animals, and the more they develop like little animals, the better for them.

Do you suppose you can keep your baby from laughing when the time comes for him to laugh? He may not laugh so soon as Mrs. So-and-so's baby, who was talked to incessantly and chucked under the chin; but some day your baby, all by himself, will laugh simply from the joy of living, or maybe because he discovers some side-splitting thing, like a fleck of sunshine on the wall or a bit of color or a waving curtain. That is natural development. Do you think you can keep your baby from sitting up when his spine gets strong enough? Give him freedom of dress and plenty of room to kick and roll, and some day he will sit up, without having his spine in a curve and his head wabbling about in a helpless fashion.

I should like you to feel that I speak from no inconsiderable experience with children, as well as from a rather un-

usual opportunity of observing them and their parents in their own homes.

In some of these children of mine I feel the greatest pride; others are a disappointment to me. But it is manifestly unfair for me to feel either pride or disappointment in the children themselves. It is the parents of the well-behaved children of whom I should be proud, and the fathers and mothers of the ill-behaved on whom my disappointment should be vented — not the children themselves.

Several years ago it was my privilege to travel with four children who had been well brought up by very wise parents. In the course of our journeyings we met a little woman whose one small child was a nuisance and an annoyance to all on shipboard, and a source of much irritation generally. One day that mother came to me, and laying her hand appealingly on my arm, said, "How do you make your children so nice?"

The mother of "my children," as the little woman called them, and I had often talked this matter over, so my answer was ready. We believed it was because, from the day of their birth, they had been taught the blessed lesson of obedience. The woman looked at me vaguely, as though she did not quite understand the language I spoke, and then said, in a tone of despair, "I suppose I ought to begin to teach Janie to mind me, but I had not thought her old enough." Poor woman! she had lost as many years as Janie was old. Poor Janie! she was badly behaved only because she had not been taught otherwise; and if her father and mother at that late date were to take her training in hand, it meant a reconstruction period such as parent and child need never have encountered had they had the proper understanding of each other from the very beginning.

Ernest Abbott, in his little book, "On the Training of Parents," says that the well-behaved child is not a natural-born angel; he is well-behaved because he has been well taught. Neither is the child who misbehaves, a natural fiend; he, too, is the result of his home training. That may sound very hopeless to those who have tried and tried and yet failed. But remember this: if you have failed, it is not because your child is impossible or unteachable, as so many parents claim. Of course your child loves you,— that goes without saying,— but have you taught him to mix with love that ingredient, respect, which is just as necessary to his happiness and yours?

The time to lay the foundation for all sorts of good habits — and not the least of these, obedience — is very early in a child's life; in fact, from the very first day of his life.

Of course, in starting from birth we do not reach the child through any responsive understanding on his part. We form habits to which he responds unconsciously until they become a fixed part of his life.

To begin with, in order to give the baby every advantage, we must look to his digestion. With a child intelligently fed, properly nourished, and wisely let alone, you have the matter quite in your own hands. He will respond readily to regular feeding hours, to systematic sleeping hours, and to just as systematic waking hours.

It is a most important matter, then, this question of proper food and proper feeding. Proper food, improperly administered, may work as much havoc as improper food properly administered. Unquestionably, more children have had their digestions and their dispositions ruined through improper feeding than any of us realize; and right here let me say that much evil may be done during the first three days of a child's life. It was never intended that babies should be dosed during these first three days before the mother's milk comes in abundance. I have a strong belief in the beauty and perfection of creation. I cannot believe any mistake has been made in a work of such marvelous completeness. Therefore, if the Creator had

intended babies to be fed on catnip tea, anise seed tea, molasses, or even crackers soaked in sweetened whisky and water, those concoctions would have been put in the mother's breast. There is an all-wise provision in that delayed food, for both the mother and the child. The baby should be fed nothing except the little he gets at rare intervals from the breast, and a little warm water as a placebo if necessary.

Nearly all very young babies are fed too frequently. In my obstetric cases, from the beginning, or rather from the third day, the babies were fed once every three hours during the day, and once in four hours at night, and this at a time when, as now, nearly all formulas advised feeding a young baby once in two hours.

The plan of feeding a baby once in four hours day and night was tried out at various times, but I always went back to my three-hour schedule as being more satisfactory. The babies gain as well, or better, than when fed more often. They form habits of long hours of sleep, and the mother obtains needed rest. They have no colic, because practically all possibility of colic is precluded by not adding fuel to the fire, that is, putting food into a stomach which still holds undigested food.

All babies should have, from the very first, a regular bedtime hour, and that hour should not be later than six o'clock. At two months, the average baby should sleep all night with only one feeding between six at night and six in the morning. If you have a child who, from earliest infancy, has known no other way than to be put to bed at six o'clock, you have formed a habit of incalculable benefit to the child as well as to the mother, for every mother has a right to the rest and freedom of the evening hours. I know of nothing more comfortable than the feeling of relaxation which comes after a baby, with such well-formed habits of sleep that you have perfect confidence in his uninterrupted slumber, has been safely and happily tucked in bed. Mothers and grandmothers have said to me that they did not believe that mothers who did not rock their babies to sleep could really love them. As I have never rocked babies to sleep, I cannot say what the sensations may be; but no warmer feeling can be imagined than I have always felt for the babies who go happily and unconcernedly to sleep, in a dark room, with never a thought of doing anything else.

As a matter of fact, my babies were rarely handled except when being fed or bathed. Twice a day, at the morning bath and at bedtime, they had what I called legitimate handling. Those times were never hurried over; the babies were massaged to their heart's content — and how they loved it! They were so rested and soothed by this treatment that most of the other hours were spent in sleep.

The morning baths are regular institutions in the lives of all babies, but I wonder how many mothers know what a splendid investment it is to give the baby a full hour of her time, or as nearly that as she can manage, at bedtime.

Begin by taking all the clothes off the baby. Give a sponge bath as necessary, and sponge the spine for from five to ten minutes, at first in tepid, and then in cool, water until it makes the spine feel cold to the touch. This seems to quiet a nervous child, and is also a preventive of colds. If the baby is normal in weight, you will not need to rub with oil; just put enough talcum powder on your hands to prevent friction on the baby's tender skin. I have yet to find the baby that does not love this sponging and rubbing. After you have done all this without hurry or excitement, put on fresh, loose clothing, feed the baby well, and put him to bed in a dark, cool room with plenty of fresh air. Be sure his feet are warm and his head uncovered.

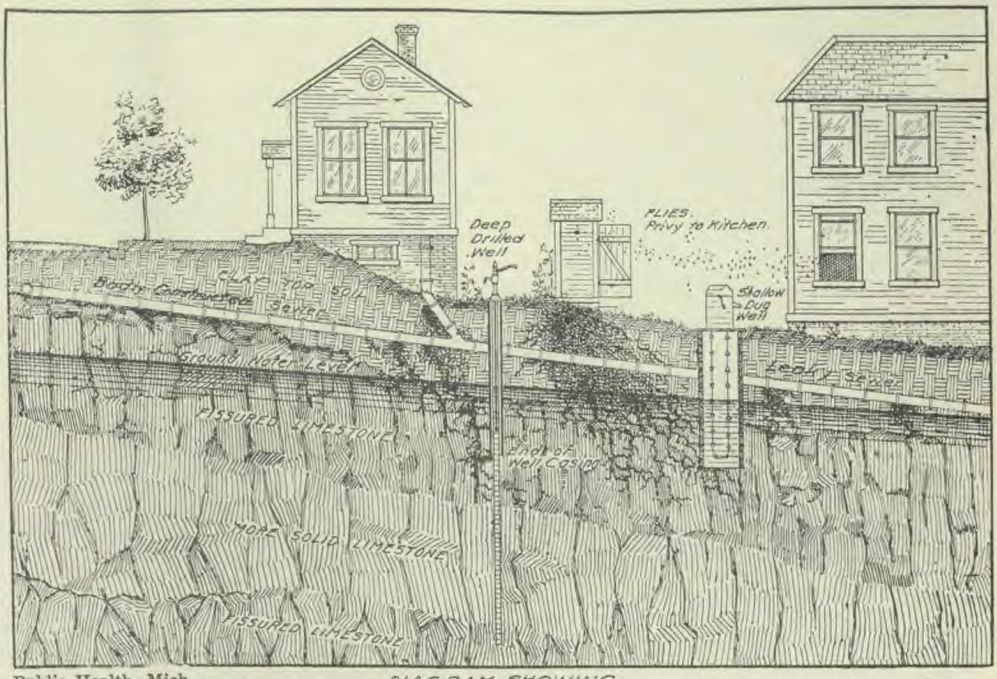
All through the earlier months of his life, then, the training of a child to obedience may be made a very simple matter. It is when a child begins to creep and toddle that new difficulties arise.

When a child begins to develop naughty ways, which are yet attractive because he seems still such a baby, many mothers seem to get hopelessly lost.

If you laugh at or condone or ignore actions at this period, which later on you consider naughty, how can you expect a child to understand and respect you? It is all so unfair to the child! This is a period replete with opportunities for teaching important lessons. Self-control and self-reliance may be taught by ignoring or making little of their numerous bumps. If a child is at all seriously hurt, learn to be calm yourself. Do not add to the child's fright by getting excited. Nothing will quiet a child so quickly as to feel the quiet of an older person.

Just as soon as a child is old enough to pull books and ornaments from bookshelves and tables, he is old enough to be taught not to do it. It may mean, just at first, much time spent in quiet, patient instruction, but you will not fail if you persist. In that lesson, as in the hundred and one others which come up, you must always believe in your own ability to succeed. Never give up in those first lessons, for that is all there is of the battle, if you choose to call it that. And all this does not mean the breaking of a child's will or anything approaching it; but it does mean the guiding of a child's will, which is a very different matter. There will be very few if any tantrums or issues if from the very first the child recognizes that he must respect and obey the rules laid down for him.

The remainder of Miss Dods's article will appear in the next issue.



Public Health, Mich.

DIAGRAM SHOWING SOME OF THE POSSIBLE DANGERS FROM BADLY CONSTRUCTED WELLS, LEAKY SEWERS AND ORDINARY TYPE OF PRIVY VAULTS, PARTICULARLY IN A FISSURED LIMESTONE FORMATION.

THE KIDNEYS AND THEIR BOSS

A Fable

J. N. HURTY, M. D.

Dr. Hurty's little fable, which first appeared in the *Bulletin of the Indiana State Board of Health*, is an example of how much more effectively a fable or a story, even if improbable, may force home an unpalatable truth than a plain bit of sermonizing. Dr. Hurty is one of our most efficient health officers, who has spared no pains to make his office one of the greatest value in the prevention of disease and the prolongation of life.

ONE time two kidneys, which had been working like dray horses for years, suddenly slowed up. Kidney number one said, "I just can't absorb these enormous quantities of salt and saltpeter the blood is loaded with nowadays, and I notice you, too, are growing weak."

"Yes," said number two, "the man we are working for is a regular glutton on ham and bacon, and since Dr. Wiley forbade borax as a meat preservative, the salt and saltpeter have been increased, and that's what makes us so tired. Yesterday the saltpeter was so strong it tore one of my tubules, and it bled horribly. The boss was awfully scared and went to see a doctor. The doctor never said a word about letting up on the ham with its embalming chemicals, but gave a prescription which I heard the old man say cost thirty-five cents. It was acetate of potash and infusion of digitalis, and when it struck me I trembled like a leaf."

"I, too, felt the blow of that infernal stuff when it came along," said number one. "I already had a good jag of salt and saltpeter, and was trying my best to pass them on when the acetate and digitalis hit me. I grew dizzy, and just to let a little light into the boss's mind, I sent a pain impulse to the brain."

"So did I," said number two. "Didn't help much, though, because he sent down a dose of morphine to quiet the pain. When the blood brought the cussed stuff, I could see the white corpuscles were staggering and were very weak-like. One of them said, 'I feel like I had been hit with a club. I couldn't whip a sick typhoid germ if it were to come along, and if it were a husky one — good-by me.'"

"Good-by for the boss, too," said kidney number one.

The two poor, overworked kidneys again conscientiously took up their functions, but it was no use; they just could not catch up.

The blood now began to kick. "I have carried this load of salt and saltpeter around the course three times now, and a new lot came into the stomach about ten minutes ago, and also a lot of catsup with vinegar and spices. If you don't take this old charge from me, as is your duty, I can't relieve the stomach."

"Let the stomach go hang," said the kidneys. "If it hasn't sense enough to throw up the infernal stuff, let it suffer."

"What can it do?" said the blood. "The creosote which got into the ham when it was smoked has paralyzed the poor thing."

So the kidneys said, "We'll just send a joint wire up to headquarters and see if the old fool boss won't let up a bit with his gormandizing."

The boss had to go to bed, and again sent for the doctor. "I have an awful pain in my kidneys," said the boss.

"My kidney pills will cure it," said the doctor; and he administered the pills.

When they dropped into the stomach, the old, tired thing said, "Heavens and earth, what's this?" Nevertheless, it bent to the job, and when the hard sugar coating was dissolved and the buchu, juniper oil, and more saltpeter dropped out, it called down the tube to the kidneys what was coming.

The poor things groaned and said, "How long, how long?"

Before the stuff in the first dose of pills reached the kidneys, another dose dropped into the stomach. "Here comes some more," yelled the stomach down the tube, and the dizzy, staggering kidneys agreed they had reached the end of their string, and Bright's disease was inevitable. They just couldn't help it, and the trouble began.

Gradually the boss wasted away in great pain, and died. He never did know why his kidneys gave out, and why he had Bright's disease.

MORAL: Eat constipating, irritant spices, eat embalmed meat, eat inordinately of salt; *eat, eat, eat* for pleasure; but don't be cranky and eat expecting to live in strength and happiness.

ST. SOPHIA

The famous old mosque in Stamboul (Constantinople).

ANOTHER MED

The varied interests of the Associated Sanitariums form a combined work of no small magnitude, embracing numerous important interests, professional, business, and educational. Occasional conventions are held for the purpose of studying methods and plans, and for the careful consideration of various problems for greater efficiency and general improvement. Such a convention was held at Madison, Wis., June 5-10, at which there were representatives — medical superintendents, business managers, head nurses, and training school secretaries — from all the Associated Sanitariums in this country, besides other institutions.

The time of the convention was crowded full with important considerations. Committees and subcommittees brought in many recommendations. These will be printed by the Medical Department in the form of a manual.

CONVENTION

A unique feature about these conventions is that their purpose is not one of financial interest to their promoters. In the spirit of the object of the institutions represented, the chief concern of the delegates is to devise plans for more effective means of public health education, for better training of nurses and other medical missionary workers, and for higher efficiency in sanitarium methods for the general welfare of the thousands of patients received every year.

It should be remembered that this system of sanitariums, with its allied interests embracing nurses' training schools, treatment-rooms, dispensaries, health-food factories and stores, and health journals, stands primarily for a great missionary purpose. Its chief end is the promulgation of the gospel of health in the fullest sense.

L. A. HANSEN.

HOME COOKING SCHOOL

YEAST BREAD, OR FERMENTED BREAD

GEORGE E. CORNFORTH

THE ability to make good bread comes only by practice and experience. The reason why baker's bread is uniform in quality is because the making of bread is the baker's one business. By study and practice he has worked out a method for making what he regards the best bread. Then by making bread every day he keeps in practice. He gets the habit of going through all parts of the process in just the same way every time, and thus gets uniform results. Machinery also has been invented which does different parts of the work in a uniform way and more thoroughly than is usually done by hand.

In writing the present series of articles I am using recipes that I have used in cooking classes to teach beginners. These recipes are given in such a way as to make it most easy for a beginner to follow the recipe and have good results the first time. But it is not easy to do anything just right the first time, therefore I would say that if beginners try these recipes, let them not be discouraged if the result is not exactly what they expected or desired the first time. Let them try again and again, endeavoring each time to follow the directions more closely, and using all the common sense and good judgment they have in trying to determine just what may be wrong if the desired result is not achieved. But a beginner should not change a recipe, thinking that his common sense or good judgment tells him that a change would be an improvement. A person is capable of changing recipes only after he has mastered the process.

Recipes for all kinds of bread will be given, but let it be remembered that white bread is decidedly lacking in cellulose and mineral elements; that so-called " whole-wheat " bread is little better, because most so-called whole-wheat flour contains only about half the bran and none of the germ of the wheat; in fact, a law has been passed, making it unlawful to call such flour whole-wheat flour, and now modifications are added to the names of such flours. I know of one whole-wheat flour, however, that is the whole of the wheat, ground to the fineness of fine flour, and there may be others on the market. The common Graham flour on the market is a mixture and does not contain the germ of the wheat; but there are a few companies making a " straight ground " wheat meal that answers to the specifications of Sylvester Graham. Bread made from such flour as this is a true " staff of life."

If bread were made by mixing flour and water together; and then baking it in the form of a loaf, the result would be something solid, hard to masticate, and unpalatable. For this reason a gas is produced in the dough, filling it full of holes and making the bread light. This gas is produced in the dough by yeast. Yeast cells are everywhere present in the air. Yeast is a low form of plant life. It is this that causes cooked fruit, for example, or fruit juice, when exposed to the air to " spoil," or ferment. Yeast is closely allied to mold. It is yeast that is used in making beer, to cause it to ferment. When the beer ferments, the sugar in the mixture is broken up into alcohol and carbonic acid

DOUGH FIRST SET TO RISE

DOUGH SUFFICIENTLY RISEN

gas, and a froth rises to the top of the fermenting liquid. This froth is rich in yeast cells.

The manufacturers of yeast cakes have a method of purifying this yeast and getting it into a compressed form. In this form especially, when dried, the yeast may lie dormant for a considerable time; but whenever it is put into a liquid that contains sugar, or starch that the yeast can turn to sugar, the yeast starts fermentation if the liquid is at a favorable temperature. The yeast cell manufactures substances, called ferments, that induce the change from starch to sugar, then to alcohol and carbonic acid gas. If fermentation continues long enough, acetic acid, or vinegar, is produced from the alcohol. The temperature most favorable to fermentation is from 75° F. to 80° F. As the temperature lowers, the rapidity of fermentation decreases, and as the temperature rises, the rapidity of fermentation increases until a temperature is reached at which the heat kills the yeast.

It is best to have the temperature in which bread is set to rise not below 70° F. nor above 90° F. If it is desired to hasten the rising of bread, it is better to use more yeast than to increase the temperature above 90° F. The carbonic acid gas produced in dough by yeast, makes the bread rise, then when the risen dough is baked, the result is light bread. If the fermenting process is allowed to continue too long in the dough, acetic acid is produced, and the bread is sour.

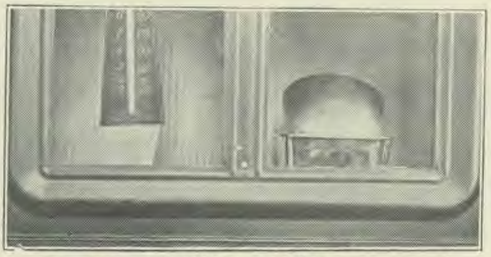
Good bread is palatable, light, porous, and crumbly, that is, when rubbed between the fingers it crumbles instead of rolling into a sticky ball; also it contains no injurious ingredients, and has not the least taint of sourness.

It is easier to control the process of bread making and to knead the bread thoroughly if only a small quantity of dough is made. For this reason I will give directions for making one loaf each of white bread, whole-wheat bread, and Graham bread, for beginners to practice with. I will also give recipes for larger quantities of bread, to be used after the process has been mastered and skill has been acquired. I give the quantity of flour by weight so that when the recipe is followed exactly the dough will be of just the right consistency, and a beginner can see and feel just how stiff bread dough ought to be. Measuring the flour is not sufficiently accurate to insure a dough of the proper consistency. A

MOLDED INTO A LOAF

RISEN LOAF READY TO BAKE

quart of sifted flour usually weighs less than one pound. If it is necessary to measure the flour, sift it, then dip it into the quart measure and tap the measure several times to cause the flour to settle and not be so light that one quart will weigh less than one pound. When very lightly measured, one quart of sifted flour will not weigh more than twelve or fourteen ounces.



BAKING THE LOAF

A large amount of yeast is called for in these recipes to shorten the time required for completing the process of making the bread. This makes it more convenient for the beginner to watch the whole process.

One Loaf of White Bread

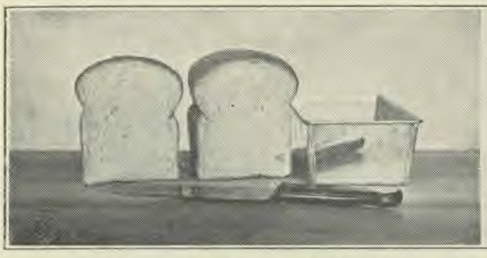
To be baked in a pan 9½ by 4¼ by 3 inches, or a pan of equal capacity.

1 pound of best bread flour, sifted
1 cup and 1 tablespoonful lukewarm water
1 cake compressed yeast
1½ teaspoonfuls salt
1 tablespoonful sugar
3 tablespoonfuls cooking oil

Put the flour into a mixing bowl. Put the lukewarm water into another dish, crumble the yeast cake into it, and stir it till the yeast is entirely dissolved. Then stir in the sugar, salt, and oil. Turn this mixture into the flour, and stir it to a dough with a spoon. Then take the dough out on to a bread board and knead it till it is perfectly smooth.

This recipe should make a dough stiff enough so that it will not be necessary to use flour on the board to knead the dough. The purpose of the kneading is to blend thoroughly all the ingredients, thus making the dough of a uniform consistency throughout, and to develop the elasticity of the gluten, not to make the dough stiffer. The process of kneading is a rolling motion which does not require much pressure upon the dough. The dough is drawn toward the body with the finger tips, then rolled away from the body with the heels of the hands, with light pressure. The dough is prevented from sticking to the board by being kept in motion. Care should be taken not to exert sufficient force to break the film on the outside of the dough. The process should be continued till the surface of the dough looks smooth; no lumps or uneven places showing. I find that the best grain is produced in bread by giving the dough a very thorough kneading when it is first mixed, then not kneading it at all after that.

When the dough is sufficiently kneaded, oil the bowl in which it was mixed, if this is large enough to let it rise in; put the dough into the bowl, and set it in a warm place to rise. Cover the dough tightly with a tin cover or with several thicknesses of cloth to prevent a skin's forming over the surface of the dough. (When a larger quantity of bread is made, it is well to divide the dough into several small pieces and thoroughly knead each piece, then put the dough all together to rise. In this way



LOAF CUT IN TWO TO SHOW THE GRAIN

WHITE, WHOLE-WHEAT, AND GRAHAM LOAVES OF SAME WEIGHT

it is possible to give the dough a more thorough kneading.) This dough should rise enough to more than double its bulk. This will require from two to three hours, according to the temperature of the place in which it is set to rise.

To determine when it has risen enough, give the top of the dough a good hard tap with the back of the fingers. If a hole stubbornly sinks into the dough where it was struck, it has risen enough. If it remains firm after the blow, it should be allowed to rise more. (If the dough sinks very quickly when struck, it has been allowed to rise too much, that is, more than it should to produce the best bread.)

When the dough is sufficiently light, take it out on a bread board, give it two or three blows with the fist, fingers downward, to flatten it out, fold the right and left sides of the dough in toward the center enough to make the sides overlap a little; then, beginning at the end farthest from you, roll the dough up into a hard tight roll. Place the roll in the oiled bread tin and set it in a warm place to rise, covering it with two or three thicknesses of cloth. It may require an hour, more or less, to rise. When the dough has risen so that its highest part is one-fourth inch above the top of the pan, it should be put into the oven.

When risen sufficiently in the loaf, the dough will respond slowly when gently pressed with the finger. When it responds quickly, it should be allowed to rise more. It is well to know this test so that if one does not know that she has the right amount in the pan to fill the pan when properly risen, she can tell by this test when the dough is properly risen. In this recipe the amount of dough made fits the size of pan indicated.

If a loaf is ever allowed to rise too much, it is better to take it out on a board and mold it over into a tight roll to rise again. The grain of the bread will be much better than if it is baked when risen too high.

The oven should be hot for baking bread. If it is desired to test the temperature of the oven, place a piece of white paper in the oven. If the paper turns dark brown in five minutes, the oven is of the right temperature. If it burns, the oven is too hot; if the paper is only light brown at the end of five minutes, the oven should be made hotter. The oven should be of such a temperature that the bread will have a nice brown crust on all sides after one hour's baking. When sufficiently baked, bread gives a hollow sound when tapped on the top with the fingers, and a well-baked loaf can be held for a moment upon the bare hand without burning it. Place the loaf on a bread rack to cool, or across the empty bread pan so that air can circulate all around it.

Next month recipes will be given for making other kinds of bread.

A ONE-COURSE DINNER FOR TWO

A Rational and Healthful Diet for School Children

THE U. S. Department of Agriculture has issued a bulletin on the feeding of school children which contains much sound advice. There is no reason, according to this bulletin, why the ordinary family dinner should not be suitable for school children, or served in a way that adapts it to their needs. Regarding the healthful preparation of foods the bulletin proceeds: —

"Whether or not the family meal is healthful for children depends not only on the food materials selected, but also on the way in which they are cooked. Simple methods are to be preferred from the standpoint of health, as well as from that of the housekeeper's time. All dishes that are likely to contain overheated and scorched fats, such as foods carelessly fried in a pan in a small amount of fat, should be avoided. . . . Vegetables cooked in water or in their own juices, and seasoned with salt and a little butter or cream, are easier to prepare than those that are served with white sauce, scalloped, or cooked in other elaborate ways. . . .

"The usual first course of meat and vegetables contains nothing, except the meat, which cannot be given even to the youngest children. The vegetables, providing they are carefully prepared by simple methods, are specially needed, and can often be made attractive to children by being served with a little meat gravy [!]. As a substitute for the meat itself, milk can be provided in the case of the younger children. These articles, with the bread and butter, provide most of the food needed."

Inasmuch as many children go home for dinner and have comparatively little time for the meal, the problem of preparing a meal adapted to the occasion assumes some importance. The department thus solves the problem: —

"It is a mistake to think that the foods given to children must always be soft or finely divided, for children's teeth need exercise quite as much as their muscles do. When time for eating is limited, however, it is well to omit foods that are difficult to chew, and in extreme cases it may be necessary to serve only soft or finely divided foods — sandwiches made from crustless bread, with finely chopped fillings, for example. Before resorting to this, however, it is well to make sure that the time for eating and for insistence on good table manners is not unnecessarily cut short. The advantage of putting the meal on the table promptly and of having foods served in individual portions, or at least ready to eat when they are brought to the table, should be kept in mind."

Much has been said and written against the use of desserts and pastries by children. The department favors giving to children the simpler desserts: —

"The dessert course is suitable for children as well as for grown people unless it consists of rich pastries or puddings. The latter are not considered wholesome for children, if for no other reason than that they are likely to lead to overeating. Such desserts as fruit, fresh or cooked, with cake; cereals with milk or cream, and sugar [cereals and milk are better without the addition of sugar.— ED.]; custards and custard puddings; gelatin dishes; simple ice cream; water ices; and other simple desserts may be given."

One Day — One Diet, The Latest Innovation

DR. CORNWELL ROUND, of London, has suggested a new system of diet[1] which, from theoretical reasons, he believes avoids some of the pitfalls of other dietetic systems.

He notes that some dietists advise a low protein diet with ample carbohydrate, stating that an excess of protein favors the formation of *uric acid*. Other dietists advise a low carbohydrate diet with ample protein, on the theory that an excess of carbohydrate causes *hyperpyremia*. The symptoms caused by uric

[1] "One Day — One Diet," by Cornwell Round, M. R. C. S., L. R. C. P. One shilling. Simpkin, Marshall, Hamilton, Kent & Co. Ltd., London.

acid and hyperpyremia he finds very much alike. He comments: —

"And as many of the cases cured by either low protein or by low carbohydrate diet appear to be very much of the same nature, opposite causes are alleged to produce a like effect. This is unthinkable. Therefore the effect, namely, good health, cannot be due to causes wherein the dietetic systems differ, but to a hitherto unrecognized cause wherein they agree. The eating of *only one diet at a time* is such *a cause common to both dietetic systems.*"

As extremes of the two systems, he mentions the potato-and-butter dietary and the lean-meat dietary, both of which, according to their advocates, seem to produce good results.

Time will not be taken now to go further into his argument, except to state that when gastric secretion is favorable for protein digestion, starch digestion must cease. Dr. Round's suggestion is that we simplify matters by giving to the stomach proteins on one day and carbohydrates on another day. He suggests three protein days in a week, the other days being carbohydrate days.

This is certainly revolutionary; for have we not been taught from time immemorial that if we eat egg we should eat bread with it? Now we do not know that the body lives "from hand to mouth," that is, without a margin of nutrition sufficient to last a day or two. Suppose we eat no protein today: is there not sufficient protein stored up for the needs of the body? And suppose that we eat no carbohydrates tomorrow: is there any certainty that there is not a storage of carbohydrate in the tissues ample to tide us over?

If such is the case, we have in Dr. Round's suggestion the advantage of a very much simplified dietary.

The doctor allows fats, greens, and fruits with either the proteins or the carbohydrates, and he advises against the use of dried beans, peas, lentils, oatmeal, and possibly of nuts, as containing too much of both protein and starch.

He offers a modification of his plan, namely, "one meal — one mixture," in which he has protein at one meal and carbohydrate at the next. This might be a better method, especially where one can live on two meals a day. A suggestive plan for any one wishing to try the method is as follows: —

For breakfast: Cereal with fruit juice or thick cream, fruits, bread and butter, olives, etc. Or potatoes may be used, but best not with fruits.

For dinner: Milk or eggs, or both, with green beans, cauliflower, cabbage, olives, and nuts. No bread, cake, or pastry of any kind. This meal would be best taken from three to five in the afternoon.

In case one desired to try a strictly vegetarian régime, the menu might be nuts and olives, together with such green vegetables as are in season; or else nuts, olives, and fruits.

It should be understood that this entire suggestion is based on theory, and has not had the backing of experience. Some who have not met with success with other dietetic schemes may find in this suggestion something they can use to advantage.

One thing is probable: on such a dietetic régime one will probably not eat too much; and that in many cases might be a decided advantage.

The Home Preparation of Fermented Milk

A GOVERNMENT pamphlet on Fermented Milks[1] has recently been issued, which describes the various forms of ripened milk, including buttermilk, kefir, kumiss, and yogurt, and gives directions for their home preparation. It would seem that the yogurt made from pure cultures of Bacillus bulgaricus —

"forms usually a rather slimy, tenacious curd which cannot be broken up into a smooth, creamy condition essential to a good buttermilk. If this organism is grown in combination with the ordinary lactic acid organism, a more friable curd is obtained, and the sliminess is not so evident. The two organisms can be carried

[1] U. S. Department of Agriculture Bulletin, No. 319. Contribution from the Bureau of Animal Industry. Professional paper by L. A. Rogers, Jan. 10, 1916. May be obtained by sending five cents in *coin* to the Superintendent of Documents, Washington, D. C.

in mixed culture only with great difficulty, as the high acid soon suppresses the ordinary form. The most satisfactory results can be obtained by making buttermilk in the ordinary way, and churning it with an equal quantity of milk curdled with the yogurt organism. This procedure gives the desirable texture of buttermilk, and a distinctive flavor.''

The following are directions for the home preparation of yogurt: —

''1. Heat one-half pint of milk in a double boiler, holding it one-half hour after the water begins to boil.

''2. Cool this milk to about 100° F. (about blood heat). At this temperature the container will feel warm, but not hot, to the touch.

''3. Add a considerable quantity of the culture to this milk. If it is in the form of tablets, three or four should be used.

''4. Transfer the milk to a bottle or fruit jar — or, better still, a vacuum-insulated bottle — which has been rinsed with boiling water, and keep overnight in a warm place. Good results may be obtained by placing the bottle or jar containing the milk in a dish of water warmed to about 100° F. The most favorable temperature for the fermentation is at or a little below blood heat. At a little higher temperature the organism grows faster, but the curd is likely to separate from the whey as a tough mass. At a lower temperature the growth may be so slow that other bacteria gain the ascendancy. By the following morning the milk should be curdled to a thick, somewhat stringy curd, with a sharp, acid taste.

''5. Heat one pint to one quart of milk, as in 1; cool, and add one teaspoonful of the curdled milk obtained, as in 4.

''Keep this milk overnight as before, and when it has curdled, break up the curd by shaking vigorously in a fruit jar.''

" Bulgarian " Bacillus Not an Alien

HERE we have been importing the Bulgarian bacillus from Europe and paying fancy prices for it, when, if we had known it, Bacillus bulgaricus is one of our most common " domestic animals," working valiantly for the nutrition of our stock. The farmer or dairyman who runs a silo for the manufacture of sauerkraut for his cattle, has the help of the tiny bulgaricus germ in the transformation of the fodder into ensilage, by souring or fermentation.

From a report in *Science*, March 3, by O. W. Hunter, and L. D. Bushnell of the United States Department of Agriculture, it appears that as a result of a large number of bacteriological analyses of ensilage it is now known that Bulgarian bulgaricus is one of the important factors in the fermentation. So it would seem that if there is any particular advantage in milk soured by the Bulgarian bacillus over that soured by the ordinary lactic acid bacillus, milk might be inoculated from fermenting material from a silo. Inasmuch as the ordinary lactic acid germ does not thrive well in milk in the presence of the Bulgarian germ, it is probable that after one or two reinoculations to new milk the resulting culture would contain nearly a pure culture of Bulgarian bacillus. If such milk is found to be too sour and the curd too hard, it may be modified by mixture of the Bulgarian sour milk with an equal quantity of ordinary sour milk.

In view of the fact that a number of persons have been selling at a good round figure the " only original Bulgarian bacillus," which usually gives a sour milk not very distinguishable from that made by the ordinary lactic acid bacillus, it might be well for those who need some such form of intestinal antiseptic to experiment with cultures from a silo.

" Bob " Veal, Prohibited by Law, Proved to be as Wholesome as Beef

THERE has long been a well-established belief that " bob " veal, that is, veal from calves that are slaughtered before they are eight days old, is unfit for human consumption; and laws forbidding the sale of such meat for food are common.

It now develops that this belief came from the statements of a few men whose investigations, in the light of more modern methods, are not at all conclusive, and that there is no adequate proof that as a food young veal is inferior to beef from mature animals.

The bureau of Animal Industry has conducted a fairly extensive series of feeding experiments on cats, young and old, and of chemical determinations of the constituents of young veal and mature beef. In these comparative tests of young veal (from calves three to seven

days old when slaughtered) with mature beef, there was nothing either in the feeding tests or in the chemical determinations to warrant the belief that veal is inferior to beef as a food.

Some may object that feeding experiments with cats can furnish no evidence in support of the contention that such meat is good for humans.

This may be admitted; but the fact that cats did fully as well on the veal as on the beef would indicate that there is no essential superiority of one meat to the other. This conclusion is supported by the comparative chemical determinations.

Moreover, there are reports by P. A. Fish of seven families, consisting of twenty persons of various ages, who over a considerable period of time received immature veal as a part of their diet. According to Fish's report,—

"all partook of the veal and appeared to relish it. None of the families reported any disturbance of the bodily functions. Their health was apparently normal, and each family was ready to receive a portion when another carcass was available."

The laxative effect of young veal reported by some previous observers, was not manifest in any of these families.

In view of the fact that there had been no investigation conducted with sufficient care to justify the condemnation of immature or "bob" veal, the above-mentioned evidence on the other side may serve to remind us that some of our most cherished beliefs may rest upon inadequate evidence.

Here are some of the beliefs of a few years ago, now known to be untrue. It was believed that night air was injurious; that malaria was caused by bad air, a "miasma" from swamps; that malaria was caused by drinking bad water; that diphtheria may be caused by the gases escaping into a house through defective plumbing; that yellow fever was "catching," that is, transmissible directly or through clothing, etc., from one person to another. Regarding these things we are getting pretty nearly down to rock-bottom facts. Concerning the causation of some of our scourges, such as cancer and pellagra, we are beginning to have some well-defined ideas; but when the truth is finally known regarding these diseases, our present views may appear as fantastic as do the early theories regarding malaria, yellow fever, diphtheria, etc., before we had discovered the infecting organism.

This article is not written as a brief for the use of veal or flesh of any kind, but in order to show on what a flimsy foundation some of our most cherished beliefs rest.

The Question of Arteriosclerosis; Why is It Increasing?

In the *New York Medical Journal*, May 27, 1916, is an editorial article which suggests some things regarding the possible causation of the old-age disease that merit more than passing attention. If people are themselves to blame for shortening their lives twenty or thirty years or more, and are doing it ignorantly, any propaganda which will acquaint them with the facts is worth while. Even though we are not yet certain as to the causation of the diseases of the heart and blood vessels, it is well to err on the safe side by discarding those things in the diet which seem to be involved. A portion of the editorial follows: —

"One fact in connection with this subject stands out with sinister prominence, that the disease or condition is more frequent by far than was formerly the case. Many young men are old before their time, and it would seem that one of the causes to which may be ascribed this premature process, is the manner of life led nowadays, especially in modern cities. . . .

"Undoubtedly diet plays a very important rôle both with causation and treatment of arteriosclerosis. A poisoning of the system, or what is known as auto-intoxication, and its effect upon the circulation, is allowed by most authorities to be a cause of the degenerative process of the arteries. Auto-intoxication is brought about by intestinal putrefaction, and this in turn may be largely attributed to errors of diet and, perhaps, particularly to the undue consumption of animal protein. . . .

"It may be taken as proved that the present mode of living, and perhaps of eating and drinking in particular, is a factor of great import with causation of premature old age. A

spare diet and a more Spartan way of living than is generally practiced by the supercivilized, self-indulgent dwellers in cities, might call a check and possibly a halt to arteriosclerosis."

Disease is Not Spread by Means of Fomites

THIS magazine has repeatedly referred to the belief, rapidly gaining credence among sanitarians, that disease is not ordinarily spread by means of clothing, bedding, and the like. The first rude shock to the older theory occurred when a number of men who slept in soiled beds in which yellow fever patients had died, did not contract the disease. Now, not only yellow fever, but most other infectious diseases are known to be transmitted by other means than by fomites (clothing, bedding, etc.). The *New York Medical Journal* of June 24 has an interesting editorial on this subject. Referring to the yellow fever experiment mentioned above, the *Journal* continues: —

"Recently this subject has received much attention, with the result that in many instances this theory of spread [by fomites] has been rendered entirely untenable. Mere contact with fomites is not sufficient; the living organisms thereon must be transmitted to sensitive mucous membranes.

"In measles, for example, it is now well understood that no amount of contact with the body linens, even if they contain the desquamated material [the scales], once considered highly infective, will serve to cause a new case. Infection is entirely by the droplet method [that is, by drops coughed up by the patient getting into the nose or mouth of another person].

"Moreover, it must be remembered that with the few exceptions exemplified by the spore-bearing organisms, most of the virulent pathogenic organisms [disease germs] do not have a high degree of vitality outside of the body, and that on exposure to dryness or to other adverse conditions, they are destroyed or their virulence is much attenuated.

"On the other hand, in such diseases as typhoid and cholera, as well as dysentery, the percentage of infections among those handling the patients, the body, bed linens, or the discharge, is not inconsiderable. It is a factor not to be passed over lightly. The infection here, while apparently transmitted through fomites, is merely an ingestion infection [that is, through the mouth], the result of faulty technic in the handling of the materials, so that the organisms are carried directly from fomites of the patient to the digestive tract of attendants."

With rare exceptions germs to cause infection must gain access to one of the mucous passages of the body, the mouth and nose being the most common means of entrance. If people would quit taking into their mouths the saliva and discharges from other people (Oh, yes, they do!) they would cut down the rate of infection to almost nothing.

They get infection in drinking water contaminated with fecal discharges, in milk contaminated in various ways, in bread contaminated with the hands of bakers and salesmen, in vegetables eaten in an uncooked state, in common drinking cups. The ways for the passing on of infected secretions are numerous.

The Prevention and Arrest of Tooth Decay

DR. PICKERILL, in "Prevention of Dental Caries and Oral Sepsis," tells of a number of children whom he had under strict observation for two years. By regulation of their diet it was possible to prevent further decay, and where decay had begun the surface had again become quite hard. His method is based on the theory that foods which favor the flow of saliva, are washed out, whereas those which do not favor the flow of saliva are liable to remain in the mouth and thus encourage decay of the teeth.

According to this theory, which was borne out in Pickerill's observations, the following foods, being neutral or alkaline in reaction, do not favor the flow of saliva, and hence are liable to lodge in the mouth and prove injurious: chocolate, biscuit, pastry, cake, brown bread, toast, white bread, milk, dates, peppermints (containing glucose), cane sugar, bread and honey, rice, figs, oatmeal cookies, and ginger cookies.

The following being originally acid in reaction, are beneficial, according to Pickerill: potatoes, lemons, parsnips, pineapples, bananas, apples, and oranges. He also includes some of the flesh foods.

He advises that the carbohydrate be reduced in amount, and that starch and

sugar in all cases be combined with a substance having a distinctly acid taste, or be followed by such substances as have an acid potential, and the best of these are undoubtedly the natural organic acids found in fruits and vegetables.

He recommends potassium tartrate (cream of tartar) in a mouth wash, because it is an active salivary stimulant. The tartrate is soluble in two hundred parts of water, is harmless in that strength, and is agreeable to the taste, especially if a little saccharine is added. It not only stimulates the flow of saliva, but by keeping the lime salts in solution it prevents the formation of tartar.

Most Baby Funerals Unnecessary May be Reduced by Education

MONTCLAIR, N. J., a residential suburb of New York, had a high baby death rate, 84.8 in 1910. This was too high to suit the local health officer, who invited a federal investigation of the local conditions affecting infant mortality.

This investigation showed that the highest birth rate and the highest death rate occurred in the fourth ward, where Negroes and foreigners live.

Through the baby clinics and the work of the visiting nurses, mothers were taught how to prepare feedings and to care for their babies.

In 1912 almost twice as many babies died in the fourth ward as in all the other wards combined. The rate, 130.4 was one and one-half times as high as the rate for the entire town. In 1913 the infant mortality rate for the fourth ward was lower than the second and third wards, and in 1914 it was lower than the average for the town.

The lesson to be learned is that baby lives can be saved when there are people sufficiently interested in the matter and sufficiently competent to conduct an active campaign of education.

Another fact noted in connection with the Montclair campaign was that while in 1912 diarrhea was the leading cause of death, not a single baby died of this disease in 1914, a remarkable demonstration of the value of a campaign for the education of mothers.

The National Board of Medical Examiners of the United States

To fill the need of a standard medical examining board for the whole United States, including its tributary territories, the National Board of Medical Examiners has been organized. It is a voluntary board, the members of which are selected from the medical corps of the army, the navy, the Public Health Service, the Federation of State Examining Boards, and other representative organizations, and the medical profession of the United States.

It is the aim of this board to establish a standard of examination and certification of graduates in medicine, through which, by the cooperation of the individual boards of medical examiners, the recipients of the certificates of the National Board of Medical Examiners may be recognized for licensure to practice medicine.

Examinations are to be conducted on a broad scientific basis of such a high yet practicable standard that the holders of certificates will receive universal recognition.

The board has the financial support of the Carnegie Foundation.

Following are the requirements for admission to the examination: —

Satisfactory completion of a four-year high school course.

Two years acceptable college work, including physics, chemistry, biology, and a modern language.

Graduation from a class "A" medical school.

One year hospital or laboratory training.

The examinations will be given in the city of Washington, in the Army Medical Museum, the army and navy medical schools, and the Hygienic Laboratory of the Public Health Service, the first ex-

amination to be given Oct. 16, 1916.

Credentials must be presented to the board in ample time for investigation.

No fee is charged for the examination, but a registration fee of five dollars will be required.

Further information and application blanks may be obtained from the secretary, Dr. J. S. Rodman, 2106 Walnut St., Philadelphia, Pa.

Aviation Sickness Due to Pressure Changes

SEASICKNESS is more familiar than pleasant to many. Aviation sickness, for obvious reasons, is known practically to comparatively few. According to Dr. Laumonier in *Larousse Mensuel* (Paris) the symptoms of flying sickness vary according to the period of ascent, of descent, or of landing.

In ascending there is noted at an elevation of 1,200 to 1,500 meters (4,000 to 5,000 feet, or nearly a mile) an acceleration of respiration and pulse, with slight headache and an indefinable discomfort, but no nausea or vomiting. At 1,800 meters, the hearing is less distinct, there are hallucinations, and the muscles are slow in obeying the will.

On descending there is marked palpitation of the heart, a feeling of anguish, intense headache, a sensation of heat of the skin, especially of the face, and an almost uncontrollable desire to sleep, notwithstanding the peril. On landing, these troubles are increased. In addition to the headache and sleepiness, the eyes are bloodshot, the extremities blue, the pulse is rapid, and the blood pressure is high. Sleep is almost an absolute necessity on landing, but is fitful and nonrefreshing. Headache may last for some hours, or even for a number of days. The intensity of these symptoms is greater when the descent is rapid. Aviators differ in their susceptibility to the symptoms, and in some cases there is a tendency for the symptoms to become less marked with experience.

Aviation symptoms are caused probably by the great changes in the atmospheric pressure on the surface of the body. Though the symptoms are transitory, and seem to leave no permanent injury, yet they may so cause loss of control as to be dangerous, especially during descent; hence it is advised that fliers be young, robust, resolute, cool-headed men, with sight, hearing, and nervous and vascular systems perfectly sound.

Those having the least tendency to heart trouble, epilepsy, tuberculosis, hardening of the arteries, or nervous troubles should not attempt to fly.

Aviators, according to Laumonier, should have a methodical and progressive training, a nourishing but not a bulky or fermentable diet, must be abstainers from alcohol, and must not abuse tea and coffee. Clothing, while warm, should not be heavy enough to restrict movements. In order to minimize the symptoms, it is advisable to mount slowly and descend even more slowly.

Auto-Intoxication Dangers; Is There a Cure?

THERE is one form of auto-intoxication that may be fatal not only to the victim, but to others. This dangerous malady is wholly preventable. The remedy is a prison sentence for every attack. The autoist who drives his car when even partially under the influence of liquor is a public menace, who should have a severe sentence for the first offense, and his license permanently revoked for a second offense. A little drastic treatment like this, under the right kind of legislation, would have a powerful effect as a preventive — much more powerful than any fear of accident.

OUR WORK AND WORKERS

NAJIBABAD, INDIA

B. A. KURTZ

THE blessing of the Lord has been on the work here, and many homes are open in which the Word of God is listened to with interest. Indeed, very few are the homes to which we have been refused admittance.

Many of the homes in which we visit have been opened through the medical work. Persons coming to the dispensary for medical help and hearing the gospel message here, invite us to their homes, as they are desirous of hearing more. Only the other day five women came to the dispensary from a village four miles distant, and after receiving treatment and listening to the gospel talk, begged us to come to their village and teach them more about the way of salvation. We accepted the invitation gladly and are planning to go soon.

A Hindu woman with whom I have been having studies for some time has given up idol worship, and says that she believes we have the true religion. She is but one among many who have said to me, "I believe that what you teach is true;" but when it comes to the test of openly confessing their faith in Christ as the Saviour of mankind, they hesitate to take their stand on the side of the Christian religion. To many no doubt it would mean separation from their loved ones, as, owing to the caste system, they would not be permitted to mingle with the family and eat and drink with them as formerly, and in some cases they might even be brutally treated, as has often been the fate of those accepting Christ. But I know that the Lord is able to take out of their hearts the man-fearing spirit and to strengthen them to be true to their convictions. So I would ask you to join me in prayer that the Lord will make them strong to take their stand on the side of truth.

During the past year we have given away several hundred Gospels, both in Hindi and in Urdu, also a number of Bibles in Hindi, in Urdu, and in English, together with many thousand pages of literature, trusting that many may be led to accept Christ as their Saviour and take their stand on the side of truth through reading. Yet all this seems but as a drop in the bucket compared to what is yet to be done. The harvest is so great, the laborers so few!

S. D. A. BUNGALOW, NAJIBABAD, INDIA

The TEMPERANCE MOVEMENT

THE HABIT NARCOTICS

G. T. W. PATRICK, PH. D.

The following is taken from an article in the *Interstate Medical Journal*,[1] in which Professor Patrick attempts to show that the narcotics are used for their relaxing rather than their stimulating effect. Incidentally the article makes out a pretty bad case for the various "booze" or "dope" habits: —

IN the swift age in which we live there is a tendency for work to infringe on the hours which should be given to play. There is thus a tendency toward chronic fatigue of the higher brain and a growing desire for any artificial means of relaxation. Alcohol and tobacco are a cheap and easy means of rest and relaxation. They simply put to sleep in a measure the higher brain centers, while allowing the needed activity to the lower ones. Dope thus accomplishes what nature intended to be accomplished by healthful and normal forms of relaxation, and one has only to experience for a few times the feeling of release which these drugs effect, to desire a repetition of the effect.

No one puts much confidence now in the alleged action of alcohol to increase one's mental brilliancy. The subject often feels a kind of psychical elation, and may imagine that this mental efficiency is increased, but too well his companions know that it is below the normal — that he is not himself, that he is even making a fool of hims lf. Coffee, perhaps, m y make an after-dinner speaker more brilliant, but alcohol never. He only seems to himself to be especially brilliant.

Meanwhile the relentless figures of the psychological laboratory have shown that efficiency of every kind, physical and mental, is decreased even by small doses of alcohol, while the same is loudly preached, and far more effectively, by the placards now posted about the buildings of great industrial works.

Drinkers will smile at the reports of psychological laboratories on the damaging effects of alcohol, but the smiling ceases suddenly when the workers in a great steel plant see the following sign posted: —

"In making promotions in all departments of the plant, superintendents of departments and foremen will select for promotion only those who do not use intoxicating liquors."

Experience has shown that temperance sermons have little effect in decreasing the desire for alcohol or its use. The promise of future health or long life has little restraining force with the average man, but his interest in his pocketbook is very real, and has a compelling power. The recently discovered fact that alcohol lessens efficiency, which is the modern god of Americans, and consequently impoverishes the pocketbook, is likely to do more for the cause of temperance than all the efforts of temperance reformers. Once let a fixed association be formed in the public mind between alcohol and inefficiency, and the battle has been nearly won. Perhaps nothing better has happened to the cause of temperance than the coining of the word "booze." The political associations called up by the goddess of wine vanish, and instead come pictures of inefficiency and imbecility, and alcohol is damned. No one cares to drink "booze."

In respect to tea, coffee, and tobacco, language may do a similar service to humanity by getting the word "dope"

[1] "Alcohol and Narcotics from the Psychological Point of View," by G. T. W. Patrick, Ph. D., professor of philosophy in the State University of Iowa.

associated with them in the popular mind.

A long list of experiments in physiological and psychological laboratories has shown that alcohol in both large and small doses decreases with fateful regularity all kinds of efficiency, both mental and physical. Whether in typewriting or typesetting or in mountain climbing or in pistol practice or in arithmetical computations, alcohol has been shown to exert a damaging effect, to diminish accuracy and decrease speed, and to lessen the amount of work accomplished.

Life insurance companies welcome the abstainer, not from sentiment or tradition, but as a result of statistical researches. Arctic and tropical explorers, engineering parties, foremen and employers of labor, training coaches of athletic teams, all discourage or prohibit the use of alcohol so long as there is work to be done or games to be won. Social workers look with dread upon the havoc done by alcohol in contributing to intensify the problems of crime, pauperism, and feeble-mindedness. Physicians find it of less and less value as a therapeutic agent, and more and more a cause of lessened resistance to disease.

The final conclusiveness of these researches has been questioned, and it is true that there are many possible sources of error in the laboratory tests. Much interest has therefore been aroused by the series of rigid experiments now being carried out by the Nutrition Laboratory of the Carnegie Institute. The first results of these researches have now been published, and they have confirmed thus far the previous studies. The depressant action of alcohol has been verified, and a "clear indication of decreased organic efficiency as a result of moderate doses of alcohol" has been shown.

ITEMS OF INTEREST

Largest Prohibition City

The largest prohibition city in the United States, and probably in the world, is Seattle, Wash., with a population of 313,029.

Prohibition Status

According to the *Union Signal*, "more than eighty per cent of the area of the United States is no-license territory, and more than sixty millions, or sixty-five per cent, of the population live under prohibitory laws." But probably considerably less than sixty-five per cent of the population is dry, in any true sense.

Motorists and Liquor

Because a considerable proportion of automobile accidents occur after the motorist has been drinking, there has been an increasing tendency to punish motorists who operate their cars while under the influence of liquor. Fines having failed to prove deterrent, some, for instance Judge Richardson of Los Angeles, Cal., favor revocation of license of motorists who drink. Addressing the city council, Richardson is reported to have said, "Most of the fatalities caused by speeding at night are due to drinking by drivers. I would advise that patrolmen be stationed at the cafés to prevent persons who have been drinking from driving a car. If a man takes even one drink, he is not fit to drive a car; if he takes two or three, he wants to step on the throttle and let her out." The Lincoln (Nebr.) *News* advises that no licenses be granted to drinking men.

Defective Vision in Cincinnati Schools

In the schools of Cincinnati, 3,475 children with defective eyes were discovered during the last two years.

Important Antinarcotic Decision

The United States Circuit Court of Appeals for the second circuit has rendered an important decision reversing the decision of some of the lower courts. By this decision, it is unlawful for any person, whether a dealer or not, to have in his possession any of the habit-forming drugs, unless the person comes within one of the exceptions named in the law. An opium smoker, by having in his possession a quantity of opium, whether raised by himself or smuggled into the country, would be violating the law.

Research Financed by Coca-Cola Company

Some time ago a report of a series of experiments was made by Hollingsworth showing in effect that caffeine causes a stimulant action not followed by a depressant action. Inasmuch as Hollingsworth is recognized as a scientist, it did not seem modest for those of less scientific attainments to comment on his work. It is interesting, however, to learn that his work was financed by the Coca-Cola Company. It is notorious that when an expert is called into court, one can know beforehand how he will testify if one knows who is paying him for his testimony. Not to say that an expert is knowingly dishonest, but money will make a mind deceive itself.

Physicians Appeal for Sober Army

Denying that alcohol gives warmth or strength, the French Academy of Medicine has appealed to the soldiers of France to avoid alcoholic drinks.

Converts to Prohibition

According to Judge E. V. Littlefield, of Portland, Oregon, business men who before the enactment of the prohibition law were opposed to it are now enthusiastic in its support.

Coffin Nails Barred from Schools

Continued wilful disobedience, open and persistent defiance of the authority of the teacher, habitual profanity or vulgarity, or smoking cigarettes or having cigarettes upon school premises, constitute good cause for suspension or expulsion from school.— *California school law.*

How They Respect the Law!

A carload of liquor designed for shipment into dry West Virginia was intercepted at Gallipolis the other day by federal authorities. The car was labeled "Old Rags." Of course the shippers who thus attempted to nullify the law are those "respectable," "high-minded," "law-abiding" liquor men who prate about elevating the liquor business. Calling the cargo "old rags," they probably had in mind the usual condition of those who drink the stuff.— *New Republic.*

Heroine Sold to a Minor

A firm of druggists in the State of New York sold heroine to a boy about eighteen years old. The mother of the boy brought action against the druggist, and the jury awarded her $2,000 compensatory damages and $1,000 punitive damages. Judge Howard of the supreme court of the State of New York, in affirming the judgment, said: "During the time when these defendants were supplying this drug to the young man he became a vagabond, an idler, a drug fiend, and a criminal, undutiful to his mother, worthless to himself, dangerous to the community. The jury was right in concluding that all this was the result of the illicit traffic carried on by these defendants, and that they should be punished for their reckless disregard of the rights and welfare of this boy and his mother."

Coca-Cola Decision Revised

For some time the United States government has been on the heels of the Coca-Cola Company, but the lower courts, including the Circuit Court of Appeals, decided in favor of the company. Carried to the Supreme Court of the United States, the decision, delivered by Justice Hughes, was against the company. In the courts below, the right of the company to use the words "coca" and "cola" was sustained. In the Supreme Court this right was denied. "To call a compound by a name descriptive of ingredients which are not present is not to give it 'its own distinctive name,'— which distinguishes it from other compounds,— but to give it the name of another compound." It would look as if the coca-cola people would have to invent a new name for their dope.

Railway Accidents Decrease in Dry Russia

Since the prohibition of vodka in Russia, alcoholism among railway employees has decreased 47 per cent, and the railway accidents have decreased 80 per cent.

A Brewer's Honesty

From Philadelphia comes information that on July 4 John Hohenadel, a brewer, was fined $100 in United States District Court for labeling his beer "Approved, recommended, and indorsed by the United States Health Bulletin."— *The Pioneer.*

Big Hotel Prospers under Dry Régime

A two-and-a-quarter-million-dollar hotel, the Davenport, in Spokane, Wash., is doing better than under the wet régime, though the proprietor feared that as a result of prohibition it would suffer heavy loss and go into the receiver's hands.

No Use for the Jail

Do you want to buy a good building? The town of Lyons, Mich., has one for sale. It is the jail. The town has no use for it, and the clerk of the village has been authorized to advertise for bids. He says the building would make a good barn. The reason why the town has no use for a jail is because it has no saloons. — *American Issue.*

Canada Going Dry

Beginning July 1 there was not a licensed liquor place in all the great territory of Alberta, and in Saskatchewan there are only twenty such places. Altogether, seven of the Canadian provinces have passed more or less drastic laws against liquor, and it looks as if our Canadian brethren might secure national prohibition before we do in this country.

Cuba Fighting Liquor

Until the capitalization of the liquor business in Cuba, there was no drink problem. Since then there have been established a brewery and distillery interest, which, as usual, works in all ways possible to "make business," which means to make more drink habitués. Under the fostering care of these liquor interests, the drink habit among the Cubans is becoming more serious, to the extent that the Cuban Department of Health is planning to regulate the consumption of alcoholic liquors.

Reply to Mr. Koren

In the *Atlantic Monthly*, November and December, 1915, and January and February, 1916, appeared a series of articles by Mr. John Koren, claiming to give an impartial study of the prohibition movement. Mr. Koren's aim seemed to be to prove the failure of prohibition and to suggest some better method or methods of dealing with the liquor problem. The Allied Temperance Organizations of Massachusetts appointed a committee to make a study of Mr. Koren's articles, and to report on their inaccuracies. The report of this committee appears in the *Scientific Temperance Journal* (American Issue Publishing Company, Westerville, Ohio) of June, 1916.

Progress in the Study of Infantile Paralysis

It is interesting to observe how quickly the science of medicine progresses. Less than ten years ago, when the 1907 epidemic was studied, it was not even definitely established that the disease was infectious; it certainly had not been transmitted to animals. In contrast to this our present knowledge of the disease is really considerable. The disease is caused by a living virus; that is, by a germ. This germ is so extremely minute as to be invisible even with a bacteriological microscope magnifying 1,000 diameters. The virus is present in the brain and spinal cord of infected individuals, also in the mucous membranes of the nose and throat of such individuals, and in their intestinal discharges. More than this, the virus is often present in the nose and throat of healthy persons who have been in contact with an infected individual. While it is extremely unlikely that the germ of poliomyelitis lives and multiplies elsewhere than in the situations just mentioned, or at least elsewhere than in the human (animal?) body, experiments have demonstrated that the germ may be present in the dust of a room harboring a patient ill with the disease.

Several inquirers have asked how we can possibly know anything about the size of a microorganism which we have never seen. This is not at all difficult. In fact, we know something about the size of a number of other germs that have not been seen; for example, measles, hog cholera, yellow fever. The germs of these diseases belong to what are called "filtrable viruses," a term used to denote that the germ passes through unglazed porcelain filters. Such filters have extremely fine pores, so fine that they readily hold back all the ordinary bacteria. The filtrable viruses, however, consist of germs so extremely minute that they readily pass through the pores of porcelain. Looked at under the microscope, even with a magnification of 1,000 diameters, no sign of a germ can be discovered. Even with the ultramicroscope one sees merely some fine points of light which may possibly be the germ in question. Such filtrates, however, are exceedingly virulent when tested by means of animal inoculations, showing that the germs are present.— *Scientific American, July 29, 1916.*

Life Insurance and Alcohol

An interesting analysis of the experiences of American Life Insurance Societies in respect to mortality among abstainers from alcohol, temperate users, and moderate users is presented in the current bulletin of the city of New York Health Department [May, 1916]. Dividing the policyholders into three classes according to whether they are total abstainers, temperate users, or moderate but habitual users of alcohol, it is shown that the mortality of the first class is about 15 per cent less than that of the second, and about 25 per cent less than that of the third. This much-diminished mortality among abstainers as compared with nonabstainers is marked even when the general section of a company's policyholders, that is, the nonabstainers, present a mortality experience which is favorable as compared with that of other companies; for example, in the case of one company in 1906-10 the mortality in the abstainers' section was 40 per cent less than in the general section, and in the years 1911-15, 35 per cent less. Results are given of investigations into the subsequent history of those who have at one time drunk to excess and those who have undertaken the alcohol cure. In neither case is the risk a good one from the insurance point of view. The importance of these statistics is derived from the fact that they have not been collected for controversial purposes by parties holding a brief against alcohol, but are the figures by which commercial organizations whose interest in the matter is purely financial, are guided in fixing premiums. While there can be no doubt left in the mind of any one who reads this paper that even the moderate use of alcohol shortens life, the writer of it remarks that the relatively low mortality among abstainers is not solely attributable to abstinence from alcohol, but it is due to "temperance in all things and total abstinence from alcohol." — *Journal A. M. A., July 29, 1916.*

Should Know about Prevention of Cancer

THE men and the women of this country must be made to understand,—

1. That cancer is a disease that one person in eight over forty dies of.

2. That cancer is recognizable in an early, or precancerous, stage.

3. That ignorance of the early signs is very dangerous and often fatal.

4. That cancer recognized early and given prompt radical treatment at competent hands is curable in a large proportion of cases.

5. That quack, patent, nonsurgical treatment of cancer is responsible for the loss of many lives annually.

6. That ignorance of the early signs and of the necessity for prompt action is a large element in the present mortality from cancer.

These represent the cardinal points, elaborated and emphasized in the tracts, papers, lectures, newspaper articles, etc., which are opening the way for a systematic effort in cancer control similar to the one which has accomplished such large results during the past two decades in the control of the white plague.— *Henry Wireman Cook, M. D., in Medical Record, May 13, 1916.*

Questions accompanied by return postage will receive prompt reply by mail.

It should be remembered, however, that it is impossible to diagnose or to treat disease at a distance or by mail. All serious conditions require the care of a physician who can examine the case in person.

Such questions as are considered of general interest will be answered in this column; but as, in any case, reply in this column will be delayed, and as the query may not be considered appropriate for this column, correspondents should always inclose postage for reply.

Mineral Oil

"Kindly give your opinion of ——, a new medicine put upon the market for the treatment of constipation."

This preparation is a liquid paraffin, such as I have frequently recommended in LIFE AND HEALTH. It is a by-product in the distillation of petroleum. There are a number of these mineral oils which are not in any sense medicines, but which act mechanically.

I think it is well not to depend too much on any one device but to use agar, mineral oil, and bran, together with such laxative foods as Graham bread, coarse vegetables, fruit, etc., and give proper attention to abdominal exercise. Most constipated people are sedentary in their habits, and need more exercise than they take.

Sauerkraut

"Will you kindly inform me if sauerkraut is unhealthful, and in what way?"

It has long been customary to use some kinds of food after fermentation has proceeded to a certain degree. All raised bread is fermented by yeast. Pumpernickel is a rye bread which has undergone lactic acid fermentation. It is especially valuable in some cases of stomach disorders.

Ripened milks, buttermilk, clabber, etc., are milks soured by a lactic acid bacillus. They seem to be of great advantage in some cases. Sauerkraut is a fermented cabbage — probably also a lactic fermentation. It seems to be especially valuable in some cases. Cottage cheese and all the cheeses are fermented foods. The flavor of butter is the result of a fermentation.

Scrofula, or Breaking Out

"Can you give instruction how to treat scrofula at home — something to relieve the breaking out?"

It would be necessary for me to know more about what you call scrofula, and what causes it, before I could give you much information regarding the way to relieve it. There are many things that might be called "scrofula," or a breaking out. Whatever the trouble is, something in your method of living is at the bottom of it. Most likely there is something wrong in your habits of eating. Without knowing more about conditions in your home and about the nature of this trouble, I should be unable to say anything further, except that possibly you are not having a sufficiency of good food of the right kind, such as milk and eggs.

Vitamines in Toasted Foods

"If high temperature destroys the vitamines in the food, what do you think about the many toasted breakfast foods? Are they more wholesome than well-cooked mush?"

It is true that experiments have shown that temperatures above boiling maintained for some time destroy the vitamines in foods. Some experiments seem to indicate that boiling milk for one minute will destroy vitamines just as thoroughly as boiling it for forty-five minutes.

One reason why the high cooking of certain of our foods is not more injurious, is that a small quantity of vitamines serves the purpose of the body. One might eat polished rice for a lifetime and not have beriberi, so long as he has a little milk with it; and I suppose one might eat toasted corn flakes indefinitely, so long as he has milk or some other food containing vitamines.

I have, however, for a long time been impressed with the idea that thoroughly toasted zwieback or browned foods are not perfect foods by any means. I rarely use zwieback as sold in the stores, but make it by drying it out thoroughly without allowing it to brown.

The "raw food cranks" are in a sense right after all. Not that it is necessary to use all raw foods, but that by the use of some raw foods we avoid the danger of living on a diet deprived of its vitamines.

I used to scout the idea that white flour is deprived of its vitality, knowing that it contains a large proportion of gluten and starch, which are most important nutritive elements. It is now known that the phosphates and vitamines contained in the bran are utilized and are needed by the body. At one time it was thought that the bran simply acted as a broom to sweep out the bowel.

Pneumonia After-Effects

"My daughter had pneumonia about three months ago, and has not been well since. There is pain and weakness between the shoulders, and she is not able to throw off a cold. She tires easily. She is a widow, but expects to marry soon. Her father died with tuberculosis when she was five years old. Kindly advise what she should do."

The weakness in her chest may be tuberculosis. She should have a careful examination. It is now known that most tuberculous infection occurs in childhood, and remains latent until some time like the present,— an attack of pneumonia,— when it bursts out.

Have her take the very best care of her health, and above all not marry. Let her take two or three or even five years in getting thoroughly well, else the first time she is with child her old trouble will come on. She is in a good climate, and she should make the best of it by remaining out of doors as much as possible.

Now this is only a guess that she has tuberculosis, but it is better to guess on the safe side. If possible, she should have a thorough physical examination by a competent physician.

Fatty Tumors

"I have a little niece, a bright, healthy child of nine years. Hard lumps are growing on her body in different places. The largest one is underneath the right shoulder blade, and pushes the shoulder blade out. There is one on the inside of her knee, on her finger, on her wrist, on her shoulder, and one on the rib close to the nipple. They do not affect her at all, but they keep growing. Is there any cure?"

From your description I judge that the child has a form of fatty tumors which, while they are harmless, are disfiguring, and may continue to grow until they become very annoying. It would be well for you to have her examined by some capable surgeon or physician.

Ricketts — Diabetes

"Kindly advise as to diet of two boys. One, developing a bulging chest, was pronounced anemic and lacking lime in his bones. The older boy, aged sixteen years, shows some sugar in the urine."

There is no better way to give lime to a child than to give him good milk; and to furnish iron for the blood, green vegetables are the most valuable.

The modern method for treating diabetes is by the starvation method, or a fast, followed by a carefully regulated diet based on the urinary analysis. This would require the personal attention of a physician. It would be hazardous to attempt a diet by mail.

Urinary Sediment

"My urine is highly colored, and after a time deposits a red sediment. I have taken Rexall's Kidney Cure, but to no good."

I am not surprised that you obtained no results from Rexall's Kidney Cure. I wish it could be impressed on people that none of these proprietary remedies are of any permanent value, and most of them are absolutely harmful.

Your condition is a disturbance not of your kidneys, but of your general bodily state. It is something that would have to be changed by regulation of diet or some treatment that would affect the whole body. The deposit you speak of is uric acid and urates.

It is possible that by confining yourself largely to milk and vegetables, with a small quantity of fruit, and by using a large quantity of water, you may be able to overcome this condition; but I am of the opinion that it will be necessary for you to take a course of treatment.

Purity of Vegetable Fats

"Do cottonseed oil and c——o [a proprietary preparation] contain lard? We have been informed by one who has worked in the vats down South that all fats and compounds made there contain lard. We are using a peanut oil bottled in Holland, but this is rather expensive. Do you know whether corn oil is pure?"

I see no reason why cottonseed oil should contain lard, which is a solid and is more expensive. No one would be silly enough to adulterate a cheap product with one higher priced.

Some of the *solid* fats made from cottonseed oil contain also beef fat in order to make them solid at ordinary temperatures. But c——o is made, as I understand it, by passing the oil over finely divided nickel, which changes its composition, making a lardlike solid out of it. I have no reason for believing that this product contains any animal fat.

There is no reason why the peanut oil from Holland should be any purer than the peanut oil prepared in this country.

There is no good reason for adulterating corn oil, or any other vegetable oil, with an animal fat, except to make it hard. You may be sure that the oils you get are vegetable oils, as the vegetable oils are the cheaper.

Cause of Rheumatism

"What can cause me to have rheumatism? I haven't eaten meat for twenty years, and but very little butter and eggs, and no tea or coffee or condiments except salt. I am forty-two years old. I have very hard headache often, and muscular rheumatism, especially lumbago. I have a good appetite and no trouble with my stomach or bowels."

Rheumatism may be caused by various things, usually perhaps some form of intoxication. Bad mouth conditions, such as bad teeth or bad tonsils, may cause one form of rheumatism. Decomposition and absorption of poisons from the intestines may do the same.

I doubt that the use of meat, butter, or eggs has very much to do with the production of rheumatism.

I notice that your digestive function seems to be good, but that your circulation and heart are poor. You would do well to have a careful examination by a dentist, and perhaps by a physician, to determine whether or not there is some cause in your mouth, nose, throat, or intestines which is producing poisons.

Who is Insane?

by Stephen Smith, A. M., M. D., LL. D. Price, $1.25 net. The Macmillan Company, New York.

By his long experience as commissioner of lunacy, Dr. Smith was admirably fitted to write such a book as this.

In untechnical language perfectly plain to the ordinary person, and with a charm of style that holds the interest of the reader, he gives a glimpse of the life of the mentally unbalanced that is destined to secure better and more humane treatment for those unfortunates who are sick in mind.

Dr. Smith shows first that there is no clear mark of distinction between those within and those without the institutions for the insane. The types are very similar. The "insane" person may be rational on all topics but one, and even brilliant; and the "sane" person may be as "peculiar" or whimsical as some within the walls.

Many persons, according to the doctor, are confined for a lifetime, gradually growing worse all the while, who, with proper care at the first, might have been speedily restored to their friends.

The latter part of the book is devoted to measures for the prevention of insanity and the care of the insane.

It was Dr. Smith who was largely instrumental in securing a training school for attendants, a State commission on lunacy, and the removal of the insane from county to State care. Owing largely to his influence, the "asylum," or rather prison, for the detention of supposed incurables became a "State hospital" for the treatment of mental diseases.

How to Add Ten Years to Your Life

by S. S. Curry, Ph. D., Litt. D. Price, $1. Boston School of Expression, Boston, Mass.

If this book will do what is claimed for it, every life insurance company should present a copy to each of its policyholders, with the admonition to read and follow its precepts.

Some readers will remember a review a few months ago of a book telling how Sanford Bennett, by a series of exercises taken in bed, which he began about the age of fifty, when he was evidently failing, transformed himself into a fine specimen of well-preserved manhood at seventy.

The exercises of Dr. Curry's book are in a way similar to those of Mr. Bennett's, but he seems, more than Bennett, to have discovered the reason why these exercises are of such great benefit. Dr. Curry rightly attaches great importance to the attitude of the mind, especially the mental attitude on awakening. His work is but the emphasizing and rationalizing of the instinctive movements of animals on awakening.

The careful directions for the performance of the various exercises are given in such a way as to encourage a hopeful and helpful attitude of mind on the part of the reader; and hope is half of the battle.

The Truth about the Bible,

by Sidney C. Clapp. Published by the author, Kansas City, Mo.

The circumstances under which this book was written may explain the endless repetitions and frequent breaks in continuity. As stated in the preface, "this work was dictated in a sickroom, a page or two at a time, as he [the author] could collect strength enough to express his ideas and thoughts."

Man is said to have a dual nature, spiritual and physical. The spiritual only is considered to have been created by God, or rather to be God (p. 25). The physical is said to be the creation of the Lord God, identified as mortal mind (p. 31).

The author's main attack is against matrimony. A few quotations will illustrate his position: "All mortal propagation is idolatry and sex worship" (p. 245). "Paganism is sex worship" (p. 263). "The home and society are founded on sex worship" (p. 265). "Sex worship is death" (p. 274). "If we would know God as life eternal, we must repudiate all sex worship, as did the Christ" (idem). "A marriage and a funeral should never take place in a church" (p. 378). "The devil is the father of all earthly matrimony" (p. 381).

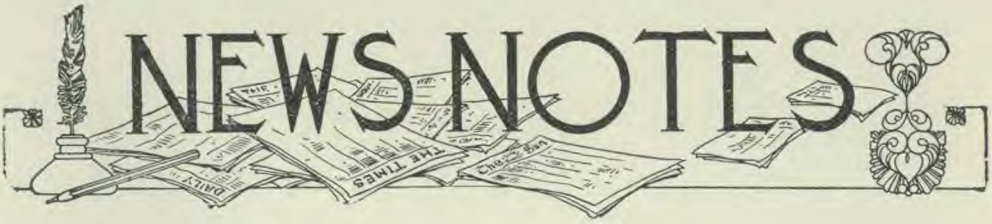
It is unnecessary to point out the error of the author's position. He fails to note that the married state was God's original intention for man; for the God who created man in his own image, created them male and female. Gen. 1: 27.

L. L. C.

History of the Waldenses

by the Rev. J. A. Wylie, LL. D. Illustrated, 208 pages, 50 cents. Review and Herald Publishing Association, Washington, D. C.

In bringing out an edition of this well-known book, the publishers have conferred a real favor on the many who have searched in vain for a copy. The book has been out of print for a number of years, but not out of demand.



Lip Reading

Any one desiring information regarding instruction in lip reading, will, by sending a post card request to the Volta Bureau, 1601 Thirty-fifth St., N. W., Washington, D. C., receive descriptive literature and the address of the nearest trained teacher.

Prize of $300 for Essay

The American Association to Promote the Teaching of Speech to the Deaf offers a prize of $300 for the best essay on the subject, "Teaching and Training Little Deaf Children in the Home." Essays must be submitted before twelve o'clock noon, Nov. 1, 1916. For particulars write the Volta Bureau, 1601 Thirty-fifth St., N. W., Washington, D. C.

Danger in Spraying Celery

The United States Department of Agriculture has called attention to the fact that in spraying celery with Bordeaux mixture for the destruction of blight fungus, there is sometimes left on the stalks an excess of the mixture. A blue-green coating at the base of the stalk shows the presence of Bordeaux mixture containing copper. Stalks so coated should be carefully scrubbed, else a quantity of copper sufficient to be injurious to the health may be eaten with the celery.

To Combat Pellagra

Following the theory advanced by Surgeon Goldberger of the United States Public Health Service, that pellagra is due to deprivation of animal proteins, especially those of meat, together with an excess of carbohydrates in the diet, C. W. Stiles urges the general consumption of rabbits and hares, for the reason that these animals are prolific, easy to raise, and cheap to feed. The editor of LIFE AND HEALTH is not convinced that the now almost universal belief that pellagra is mainly a disease of faulty diet is entirely correct.

Solution Not in Sight

The *Medical Record* in its notice of a recent book, "Pellagra — An American Problem," says: "The title of this book is well chosen, for pellagra is truly now an American problem, and one of which the solution does not appear to be in sight as yet." In our opinion a wise statement of the case, notwithstanding the optimism of the men who believe that the solution of the problem is more meat in the diet. A faulty diet is probably only one of two or more important contributory factors in the production of the disease. Let us not be carried away with the idea that the prevention and cure of pellagra is simply a matter of diet.

Uphold Rat-Proofing Ordinance

The ordinance adopted by the commission council of the city of New Orleans requiring the rat-proofing of all buildings in the city and making it unlawful to construct or maintain any structure that is not properly rat-proofed, has been upheld by the supreme court of Louisiana.

Cancer is Curable

According to the American Society for the Control of Cancer, there is but one positive cure for cancer — early and complete removal. The secret of the successful cure of cancer is to consult your physician at the first sign of an unusual growth or lump upon the body. Delay greatly reduces the chances for recovery.

Gasoline in Treatment of Wounds

After an experience of two years, Stevens reports in the December 15 *Lancet* his success with the use of gasoline in the treatment of ulcers and suppurating wounds. He states that water has little value as a cleansing agent, but gasoline dissolves fats, and materially alters surface tension, quickly producing a clean wound; and if it is allowed to evaporate freely, its application causes little or no pain.

Bottled Waters

A bulletin (No. 369) issued by the United States Department of Agriculture, based on the bacteriological examination of one hundred and ten commercial waters bottled in the United States, says that a large proportion of these contain bacteria which indicate some contamination. Ten per cent of the waters had such a quantity of colon germs as to render them "too suggestive of dilute sewage to be accepted by any one." Over half the waters had colon bacilli in quantities sufficient, if found in a city water supply, to render it "suspicious," and to make an investigation necessary. The bulletin gives suggestions for the control of bottling establishments.

Typhoid Outbreak Due to Oysters

According to Paul B. Brooks, in the *Journal A. M. A.*, May 6, 1916, an epidemic of fifty cases of typhoid occurred in a moderate-sized city and in several small neighboring towns. Investigation led to the association of the disease with the use of oysters in seventy-six per cent of the cases. The oysters were all obtained from one of two wholesalers. It was impossible to trace the infected oysters back to the beds from which they came. This experience should teach us that oysters are not safe, notwithstanding the sanitary surveys of many of the beds. When one buys oysters, he cannot be sure where they came from.

Butter Fat and Growth

According to Funk and Macallum, as given in the *Journal of Biological Chemistry*, butter does not stimulate the growth of young animals. This opinion is opposed to that of Osborne and others.

Baby Week

During the spring months Baby Week was observed in more than two thousand cities and towns throughout the United States. The National Convention for the Prevention of Blindness received many requests for the loan of exhibits and lantern slides.

For Constipation

It is said that an ounce or two of flaxseed stewed in soup or with fruit is an excellent laxative. The seeds are not to be chewed, but swallowed whole. The contained mucilage makes the feces more bulky and slippery, and this facilitates comfortable movements. The seeds never cause irritation.

Sugar in Infected Wounds

A novel method of treating infected wounds, which comes from the German side of the war zone, is to cover the surface of the wound with granulated sugar and this with a light dressing. The doctor who made the suggestion claims to have used it in a large number of cases, and states that he has not noted any cases where its use was harmful. The wounds under this treatment clean up more rapidly, healthy granulations grow more evenly, and epithelial growth is stimulated.

To Control Whooping Cough

According to Dr. F. A. Remley, in *American Journal of Clinical Medicine*, an infusion of chestnut leaves will control the vomiting and whoop of whooping cough if used according to his method. He puts an ounce of fresh chestnut leaves (dry leaves or the tincture will not answer) in a pint of water, boils, and strains. This tea is sufficient for one day. A fresh preparation should be made every morning. At the end of five days the most annoying symptoms — the whoop and the vomiting — should be under control.

Building Men and Roads

In Iowa and Colorado, roads are being made by men from the prisons. The roads made are excellent, and the men are taught a means of earning an honest livelihood. Prisoners put at monotonous work, like breaking rock or shoveling sand for ten hours a day, do not take kindly to it, and shirk whenever they can; but in building roads there is sufficient variety to keep up their interest, and in order to shorten their terms they work with a will. They do not wear prison clothes, and often are unaccompanied by a guard, yet a prisoner rarely tries to escape, as recapture means the full sentence. Prisoners are anxious to be detailed on road work, and when doing this work they soon exchange the prison pallor for a healthy tan, and the hangdog expression for one of self-respect. "Building men and roads" expresses it.

Strychnine Not a Stimulant

Chase and Schlomovitz, in the *Iowa State Medical Society Journal*, teach that strychnine, if not supported by other specific stimulants, is to be condemned, and that its use in this way might be positively dangerous.

Cremation Association Meeting

The fourth annual convention of the Cremation Association of America will be held in the auditorium of the Hotel Gibson, Cincinnati, Thursday and Friday, August 24 and 25. All who are interested in cremation are invited to attend. Some of the most prominent members of the medical profession have advocated cremation as the best means of disposing of the dead, on sanitary grounds. There are fifty-three crematories in the United States.

How Women Vote

Since the women have had suffrage in California, the following important legislation has been secured: Age of consent raised from sixteen to eighteen; fathers required to support illegitimate children; men required to produce certificate of health in order to obtain marriage license; a minimum wage law; a workingman's compensation law; a joint guardianship law; the requirement of a wife's signature to the assignment of a husband's wages; an act raising the age of child workers from twelve to fifteen; a law placing responsibility for disorderly houses upon owners or lessees.

Decrease in Typhoid

A few years ago Dr. Henry Davy, then president of the British Medical Association, in his official address stated that fifty years ago his predecessor frequently received as much as $1,500 a year for attending typhoid patients, but that his own income from that source during the past few years had scarcely averaged $25 a year. Certainly a good showing for the efficiency of England's medical health officers. There is some work to be done yet in this country in the eradication of typhoid. In the cities the rate is usually small. The endemic source of typhoid fever is the country district with its unscreened earth closets, its shallow wells, and its myriads of flies.

Corn and Pellagra

At the recent meeting of the Association of American Physicians, Dr. E. J. Wood, of Wilmington, N. C., read a paper favoring the view that pellagra is caused by the use of corn which is superheated and highly milled. In the discussion two physicians, one of Philadelphia, the other of New York, gave instances of pellagrins who had never eaten corn, to which Wood replied: "I have seen many pellagrins who had never eaten corn meal in their lives, but who nevertheless were relieved on being fed corn chops. Wheat germ will probably act in the same way." He believes that the extensive use of baking powder and soda in the South may be a factor in the pellagra problem. "It is a fact," says Dr. Wood, "that the sudden appearance of pellagra in the South was coincident with the disappearance of the old-fashioned water-power gristmill."

Prohibition in Russia

After a trial of a year and a half, Russia is now prepared to make the prohibition of vodka perpetual. A law recently passed the Duma permanently prohibiting the sale of drink containing more than 1½ per cent of alcohol.

Railway Contention Not Upheld

A Georgia railway contended that the Georgia State Prohibition law is unconstitutional. Three federal judges thought differently, and upheld the confiscation of two carloads of whisky shipped illegally.

His Parting Wish

A condemned man, about to take the electric chair in Auburn prison, evidently attributing his crime to drink, said, "I have got to leave this world, and I wish I could leave it knowing that there wouldn't be another drop of liquor made."

Amebic Dysentery

In the European war, particularly about the Dardanelles, there was a great deal of amebic dysentery infection. Emetine was the only drug which gave any valuable results. It was found necessary to give the treatment very thoroughly before discharging the patients from the hospital, in order to prevent a relapse or the presence of ameba carriers.

Defective Eyes in Charleston

Owing to the appearance of trachoma in the city schools of Charleston, W. Va., a thorough examination of the eyes of the pupils was made, revealing the fact that out of 5,800 pupils, 1,000 had some eye defect. It is proposed to start a free clinic for eye troubles, and to begin a campaign of education to teach parents the importance of furnishing individual towels, washbasins, and other accessories for children with sore eyes.

Tuberculosis Movement

In the United States nearly 3,000 agencies are now enlisted in the work of combating tuberculosis, an increase of 1,600 since 1904. The list includes 557 sanatoriums and hospitals, 158 tuberculosis boarding houses, 90 hospitals for the insane, 35 penal institutions making special provision for tuberculosis, 455 dispensaries, 310 open-air classes, and 1,324 antituberculosis associations and committees. The 158 Canada institutions and associations make a total of 3,087.

Sir Victor Horsley Dead

Sir Victor Alexander Haden Horsley, a noted brain surgeon, temperance worker, and author, who was a colonel of the royal army medical corps, died in Mesopotamia, July 6, from heat stroke. Sir Victor was a medical educator, a professor in University College, London, and a profuse writer on medical and medico-social subjects. He wrote an authoritative work on the effects of alcohol on the human body. Being a man of strong convictions, he made many enemies, especially among those whose interests are entirely selfish and antisocial.

Preventive Measures in Infantile Paralysis

Health Commissioner Emerson of New York City, in order to stamp out the epidemic of infantile paralysis, has ordered rigid quarantine of the infected districts, and the closing of reading-rooms and moving picture shows to persons under sixteen.

The Mad Dog Problem

Occasionally we read an account of a dog running amuck and biting other dogs and children. An enforced muzzling law would prevent the danger of such catastrophes. In England, where the laws are rigid, rabies is unknown. It may surprise the reader to know that in New York City alone upwards of 4,500 persons are bitten annually by dogs, or more than twelve a day. Perhaps a fair percentage of these are not infected with rabies, and most of the others, receiving prompt antirabic treatment, recover.

Infantile Paralysis Epidemic

An epidemic of anterior poliomyelitis, commonly known as infantile paralysis, which began in Brooklyn, N. Y., early in June, soon assumed most serious proportions, and the U. S. Public Health Service is cooperating with the local health authorities in the effort to stamp out the epidemic. A special Congressional appropriation has been made for the purpose, for the reason that when the annual fund was appropriated to the Public Health Service for the control of epidemic diseases, no provision was made for infantile paralysis.

England Wars on Cancer

Notwithstanding her foreign troubles, England is not neglecting her home troubles. The war against the Teuton foe has not forestalled the war against the cancer foe. The Central Midwives' Board has recently issued a circular on cancer, prepared by the chairman, Dr. F. H. Champneys, F. R. C. P. Dr. Champneys advises that all lumps in the breast except those caused by undoubted and recent inflammation, be removed as soon as they are found, and that all women who discover a lump in the breast consult at once a reliable surgeon. If the lumps are not removed and are cancerous, the disease sooner or later spreads through the body and becomes incurable; while if the lumps are not cancerous, they may become so.

Los Angeles versus San Francisco

Los Angeles, with an area of 288 square miles, the greatest of any city in the world, has only 200 saloons, less than one to the square mile; while San Francisco, with an area of 41 square miles, has more than 4,000 saloons, and as many more illegal places, more than one hundred to the mile, possibly two hundred; yet the cost of protecting the great area of Los Angeles against crime during 1915 was less than half the cost of protecting San Francisco, and the general government of Los Angeles cost little more than one fourth as much as that of San Francisco. San Francisco, phœnix-like arose from her ashes, but she will not arise from her present incubus unless she does away with the liquor evil.

Name Changed

The International Health Commission of the Rockefeller Foundation will hereafter be called the International Health Board of the Rockefeller Foundation.

Approved Baby Eye Drops

The Tennessee State Board of Health has approved of either of the following solutions for use as preventive of infantile blindness: Silver nitrate, 1-per-cent solution; or argyrol, 15-per-cent solution.

Sir William Ramsay Dead

The great English chemist Sir William Ramsay, discoverer of the rare gases argon, neon, xenon, and krypton, died July 23, aged sixty-two years. He was awarded the Nobel prize in chemistry in 1904.

Treatment of Infantile Paralysis

More or less success has been reported in the use of adrenalin in the treatment of spinal paralysis. But as yet the number of cases reported is too small to justify this remedy's being classed as a specific cure.

Evening Eye Clinic, Boston

The evening eye clinic of the Boston Dispensary is said to be the first evening eye clinic that has been placed on a self-supporting basis. It was established for the accommodation of those who cannot afford to take time during the day to visit a clinic, or to pay the usual fees of an oculist. The fees are $1 for the first visit, and 50 cents for each subsequent visit.

Wine Grapes No Longer Profitable

The vineyard of the Stanford University (California), containing 2,500 acres of wine grapes, has been found to be unprofitable, and the grapevines have been pulled up and the land planted to alfalfa. It is said that the wine trust has placed so low a figure on the grapes that it is no longer profitable to grow them. But it is not only in dollars and cents that the wine vineyard is not profitable. If character, health, and morals count, there are some other excellent reasons why all the wine grapes should be pulled up.

Health Insurance

The American Medical Association at its last annual meeting recommended that every State medical association be requested to establish a committee on social insurance to work with a similar committee appointed by the American Medical Association. The American Academy of Medicine has also appointed a social insurance committee to consider such phases as health insurance, industrial insurance, accident insurance, mothers' insurance, and insurance against nonemployment. The American Association of Industrial Physicians and Surgeons has a health insurance committee. The Conference of State and Territorial Health Authorities with the United States Public Health Service, also has a standing committee on health insurance. With all these agencies at work, it is evident that public opinion will be rapidly crystallized on this important subject.

A Helen Keller Lecture

At a lecture given by Helen Keller in Birmingham, Ala., the net proceeds amounted to $426, which the Birmingham Association for the Prevention of Blindness used in paying the salary of a teacher for the blind, and in the purchase of books for the blind.

Blindness from Wood Alcohol

Another case of blindness resulted in New York City from the use of wood alcohol. Examination of the patient at the Neurological Institute, where he applied for treatment, showed that he was entirely blind. At his wedding, four months previously, he had drunk the usual homemade Italian cordial. One of the ingredients must have contained wood alcohol.

Elie Metchnikoff

The prince of bacteriologists, who believed that by clearing the intestinal tract of its enemies man might attain to the age of one hundred and fifty or two hundred years, himself died at the age of seventy-one. He had laid down some very severe rules by which infection might be avoided, but some of his friends say he failed to live by these rules. A hard student of longevity, he failed to make his studies practical in his own life. Many a man ignorant of hygiene, living according to his natural inclination, lives to be more than one hundred. Metchnikoff has left to the world a priceless legacy of information regarding the relation of minute organisms to disease and the nature of the body's defense against disease.

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Loma Linda Sanitarium, Loma Linda, California.

Madison Sanitarium, Madison, Wisconsin.

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Nebraska Sanitarium, Hastings, Nebraska.

New England Sanitarium, Melrose, Massachusetts.

Oakwood Sanitarium, Huntsville, Alabama. (For colored.)

Paradise Valley Sanitarium, National City, California.

Portland Sanitarium, East 60th and Belmont Sts., Portland, Oregon.

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Tri-City Sanitarium, 1213 15th St., Moline, Illinois.

Wabash Valley Sanitarium, La Fayette, Indiana.

Walla Walla Sanitarium, College Place, Washington.

Washington Sanitarium, Takoma Park Station, Washington, D. C.

Washington Sanitarium Branch, 1713 I St., N. W., Washington, D. C.

Foreign Sanitariums

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Bellair Hydropathic Sanitarium, Bellair, near Durban, Natal, South Africa.

Cape Sanitarium, Plumstead, Cape, South Africa.

Caterham Sanitarium, Surrey Hills Hydro, Caterham Valley, England.

Christchurch Sanitarium, Papanui, Christchurch, New Zealand.

Christiania Health Home, Akersgaden 74, Christiania, Norway.

Friedensau Sanitarium, Friedensau, Post Grabow, Bez. Magdeburg, Germany.

Kimberley Baths, 7 Cheapside, Kimberley, South Africa.

Lake Geneva Sanitarium (Sanatorium du Leman), Gland, Ct. Vaud, Switzerland.

Natal Health Institute, 126 Longmarket St., Pietermaritzburg, Natal, South Africa.

River Plate Sanitarium, Diamante, Entre Rios, Argentina, South America.

Skodsborg Sanatorium, Skodsborg, Denmark.

Stanborough Park Sanitarium, Stanborough Park, Watford, Herts, England.

Sydney Sanitarium, Wahroonga, N. S. W., Australia.

Warburton Sanitarium, Warburton, Victoria, Australia.

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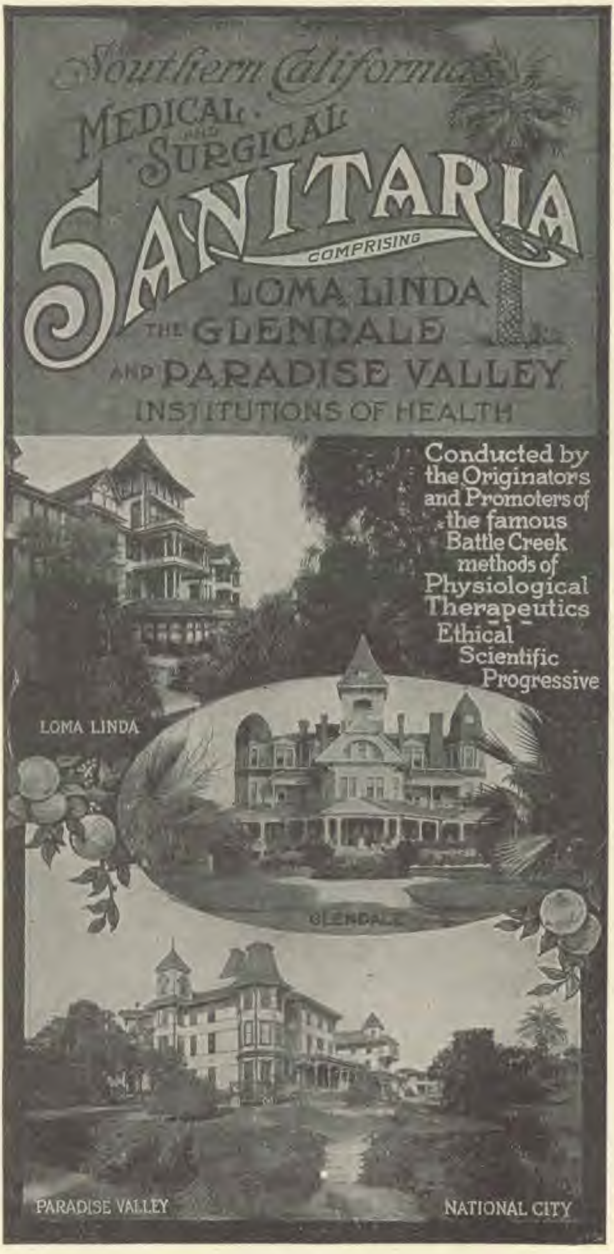

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