LIFE & HEALTH

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Winter's Joys

LIFE and HEALTH

"Something better is the law of all true living"

Vol. XXIV Takoma Park Station, Washington, D. C., February, 1909 No. 2

A Faith That Works Against Disease

J. T. Harding, Jr., M. D.

SO much attention has been paid of late to the study of the influence of the mind upon the body and of the body upon the mind, so many have observed in others, or have experienced in their own lives, the power of the mind to influence disease, that a marked interest in mental healing has been awakened. While many articles of varying reliability, relating to mental healing, have gone forth to the American public, it is fortunate for the readers of LIFE AND HEALTH that its pages, while not neglecting to point out the importance of healthful living and intelligent dealing with disease, have emphasized the value of faith, confidence, cheerfulness, courage, determination, unselfishness, and all exalting emotions as factors in maintaining and restoring health to the nervous invalid, fallen under the cares and anxieties of modern civilized life.

Faith and Peace

To all lovers of the cause of truth, the recent studies regarding the laws of the mind (interest concerning which has been largely aroused by the accomplishments of certain faith-curists, hypnotists, Christian Scientists, and other wonder-workers, with their mixtures of truth and error) ought only to emphasize the importance of the teachings of the Word of God as to the help for mind and body that lies in a genuine living faith in God, and in the possession of the peace which Christ left to those who by faith would receive it.

Many have endeavored to show that it matters not what the object of one's faith may be, because it is, they claim, the state of mind only that brings the help. It is the state of mind that makes faith a power; but the value of any degree of faith must be measured by the harmony it obtains for the possessor with the established laws by which the creature receives life from the Creator. Real faith in the God of love is the most complete and effective agent for the maintenance and restoration of health of mind and body, not alone because of the worthy object of our faith, but because genuine faith implies compliance with all the established laws of mind and body that may become known to us, thus placing us, as our knowledge increases and experience widens, in the direct line of God's blessings.

What Perfect Faith Will Do

Perfect faith, with its necessarily con-

comitant perfect mental hygiene, the practical faith taught and applied to the needs of fallen man by the prophets and apostles of old, and by God's messengers of all ages,— that faith which comes from an increasing knowledge of God's character as shown in revelation and created works,— should be longed for by every honest heart. As the possession of such faith develops character for us, our dependence upon favorable environment and upon encouraging friends will diminish, and our confidence in certain physicians, bold pretenders, complex treatments, enslaving dietetics, and noxious drugs will be replaced by a state of mind that, in many instances, will more readily permit the healing forces of nature to overcome our diseases.

We purposely say "in many instances," because we have no more right to claim that faith alone must save us in this life from certain organic diseases already developed because of the sins of our ancestors or our own transgression of the laws of our being, than we have to believe that Christ's sacrifice was to do away with the first death. There are but two instances related in the Bible in which God saw fit to save men from the curse resulting from Adam's sin, and we have no record of those men of faith going around claiming the right to translation. We may be certain, however, that there are no diseases, functional or organic, mental or physical, which are not alleviated or made more bearable by a righteous faith giving support to the afflicted or actuating the kind ministrations of those who care for the sick.

Permits no Presumption

The right kind of faith will not permit one to disobey wilfully any moral or physical law, nor to manifest presumption. When depending on the peace of mind, which genuine faith secures for one, to enable the brain to direct the bodily functions in a normal way, and consequently to increase our resistance to agencies of injury and disease, it would be as presumptuous to neglect essential therapeutic measures as to depend on our faith to preserve us from spiritual contamination, were we to place ourselves intentionally and unnecessarily on Satan's grounds.

To Convert the Sick

When it is remembered that this grand faith which enables the possessor to lay hold of God's power to protect him from disease, or to enable him to overcome it, is a matter of gradual development, will it not make us careful and patient, practical and persistent, in teaching those who are already sick in mind or body the necessity and value of correct faith in God, and how to develop it?

Just as preparation, thought, and experience are necessary in order to know how to meet the needs of certain children during their education, or to reach certain classes of sinners with the gospel, so are they essential in leading back to health, or in re-educating, those individuals whose habits of thought have brought on nervous or mental disease, deranged functions, and lowered vitality, to such an extent that they can not readily grasp and put in practise the principles underlying mental healing.

CHILDREN'S GARDENS

Their Value for Health, Happiness, and Physical Development

Mrs. Henry Parsons

THE value of children's gardens as a means for health, happiness, recreation, gentle but effective exercise, and as a preventive of moral and physical tuberculosis, is becoming more and more recognized. Not more than one in five hundred of the children suffering from incipient tuberculosis, or those in whom the disease has been arrested or cured, or the children of tuberculous parents, can be accommodated at the seaside or mountain homes now in existence. Even if they could be, parents are unwilling to be separated from their children, nor should they be asked to be. The parents of moderate means have the same right to love and care for their children as have parents of affluence and wealth, and the time has come when we must seriously consider the necessity of placing children's gardens near the homes of people of moderate incomes, in order to furnish a place where the children can, if necessary, spend the whole day out-of-doors, within easy reach of their parents.

MRS. HENRY PARSONS

President of the International Children's School Farm League; director of Children's School Farms, under the Department of Parks, Borough of Manhattan and Richmond; member of the New York State Grange

There is no longer a question as to the value of fresh air and sunshine for the delicate child or adult. For the delicate or crippled child the ordinary playground is prohibitive because of its intense activity. The excitement of games or mechanical apparatus will often lead children and adults far beyond their physical endurance. Manual labor, when not compulsory, never does. When one is tired from manual labor, he stops. Few persons realize that a child's backache, flushed face, and unnaturally bright eyes are to be

considered seriously. The healthy child is never lazy. It may have its likes and dislikes regarding certain kinds of occupation, but it is generally prone to perpetual motion, and oftentimes its occupations must be planned in order to keep it from too intense a strain.

HOEING—WATERING—GATHERING TOOLS

Mrs. Parsons enjoys nothing so well as to be with her "family" of gardeners

A properly conducted children's garden, by its very method of spading, planting, marking the plots, hoeing, raking, weeding, watering, develops every part of the body, straitens the back, broadens the chest, encourages deep breathing, without any verbal suggestion that it is wise and best for the child's health that it should do these things. There are very few adults who are willing to deny themselves a present pleasure for future health and strength. Why, then, should we desire to put old heads on young shoulders, and force the responsibility of the future welfare of the world and themselves upon them, by trying to impress them with the need of exercise, proper eating, etc? The more we use our efforts to make children living trees by running streams,—planning their surroundings so that these must bring health, strength, happiness, and better morals,—the more definite will be the results. Pestalozzi tried to carry out an ideal home, with simple dress and substantial, plain food for the children under his care, without success. With one accord, they preferred to go hungry for days, in hope of receiving the delicate titbit that might fall to them by begging from door to door—even if such titbit should be received only at uncertain intervals. Working in a garden creates such a normal, healthy appetite that a child is only too glad to eat a good, hearty meal of substantial food.

The seven years of the existence of the

children's school farm in DeWitt Clinton Park, Fifty-fourth Street and Eleventh Avenue, New York City, has given definite, conclusive proof not only of these statements, but of the vast use to which a plot of ground two hundred fifty by one hundred thirty-five feet in size can be put. There is more happiness to the square inch in this piece of ground than anywhere else in the world. The plan upon which this garden in New York is conducted has made it possible, at a conservative estimate, for four thousand three hundred twenty-six adults and children to derive profit, pleasure, and health from April 1 to October 24. Of this number, one hundred fifty were crippled children; four hundred babies and younger brothers and sisters came with the "little farmers;" five hundred registered visitors and an equal number of adults enjoyed the garden while convalescing from illness or childbirth—a time when the poorly nourished mother has a strong tendency toward tuberculosis; men of the neighborhood showed deep interest in the elementary forestry demonstration and observation plots, so learning what the conservation of the nation's resources means; visits were made by old farmers, who claim the days spent in this garden the happiest of their lives. During the two weeks from September 23 to October 17, the garden was used by 2,026 pupils of grammar schools, high schools, and training-schools, who came in classes, with their teachers, for botanical study. During the summer and fall, nature material is furnished to one hundred twenty-five schools.

This little farm in a great city — or rather aggregation of little farms — is one of the happiest spots in Gotham

On Friday, October 16, this was the picture I witnessed as I entered the garden: eighty-four high-school boys were wandering about the garden, finding the answers for themselves, from the living, growing things, to the list of typewritten questions given them by their teacher of botany. These boys were the dregs of several classes, and deemed the most unruly in the school. They were boys who had been left over from year to year, having been unable to pass examinations,

and their teachers were amazed at the good behavior and intense interest shown by these boys in this garden. Their interest was so deep that there was no occasion for discipline. At the same time, one hundred four grammar-school girls, in classes with their teachers, were making use of the garden. In the summer-house sat a mother with twins four weeks old, and a little one of three by her side, enjoying the sunshine, fresh air, and flowers.

Where justice, courtesy, honesty, and truthfulness prevail, a small piece of ground can be used to advantage by many; and I feel convinced that the time is at hand when all thinking people will appreciate the value of this work, and will see that such gardens are established wherever possible and feasible.

The International Children's School Farm League, whose office is at 29 West Fifty-sixth St., New York City, was formed in 1907, to unify the interests along this line, and will be glad to receive any communications from those doing a similar work, and to receive membership fees and donations, in order to establish the work wherever possible.

[We are glad to call the attention of LIFE AND HEALTH readers to the movement represented by the International Children's School Farm League, which has been established in order to bring to every child who needs it the advantages of the school farm. Those who desire to help in this worthy cause may do so by taking membership in the league, the annual dues for active membership being one dollar; for associate membership, five dollars; for sustaining membership, twenty-five dollars. All dues, contributions, etc., should be sent to Mrs. Howard Van Sinderen, Treasurer, 1 West Eighty-first St., New York City.—ED.]

Fresh Air

L. J. OTIS, M. D.

Superintendent Iowa Sanitarium

AIR, as you know, is made up principally of nitrogen and oxygen. But since the nitrogen does not combine with anything, but is inhaled and exhaled as nitrogen, it is evident that it is in the air only for the purpose of diluting the oxygen. The value of air lies in the oxygen that it contains.

Oxygen will not burn, and yet it is by far the greatest supporter of combustion that we have. Were it not for the nitrogen in the air, our cook-stoves and almost everything else would burn up. It is this property of supporting combustion that is essential to all life. Poisonous waste materials must be destroyed, or burned up, and heat and energy must be produced. All these processes require combustion, or, as it is termed when applied to the human system, oxidation.

That we may get a good supply of oxygen it is necessary to ventilate thoroughly our rooms, and our lungs as well; for unless the air is taken in, the oxygen will do us no good. To properly ventilate a room, one should provide for the expulsion of contaminated air, and allow a copious supply of fresh air. By fresh air is meant, of course, air in circulation, free from all sources of contamination. Under these circumstances, fresh air by night, as well as by day, is essential in any room in which is life, of either man or beast. But in the limits of this article I must confine myself to man's need of air.

There is, perhaps, nothing more common than fresh air. It is one of nature's bounties, and as such is offered free to all who will take it. There is no one thing so potent to prevent disease, so effective to maintain general healthy action of the whole body, so powerful to heal sickness, as fresh air. Some go from one doctor to another, hoping to find something that may prove a general panacea, when all about them it abounds; and yet how loath they are to accept it. If there is any virtue in purchased medicine, in fresh air there is more.

We all need it. We all have to have it. And the more sick the individual, the more fresh air he ought to have; and yet how little he often gets! Under pretense of doing something for the patient, the windows are closed, and frequently the face covered, for fear a little fresh air might hurt him. How foolish! There is one thing we can all do for the sick,— the very best thing,— give him an abundance of fresh air. If in order to do this he is exposed to a draft, cover the shoulders and chest well; but give the fresh air. A draft in the face is not harmful, and in some cases it is quite essential, as in exhaustion, heart failure, and fainting.

In support of this, note the following from the *New York State Journal of Medicine:* "Nothing stimulates the heart better than a current of fresh, cool air upon the face. Fresh air stimulates the

heart, reddens the blood, quiets restlessness, favors sleep, improves secretions and digestion; in short, meets most of the indications for the treatment of pneumonia in infants." And it is not only in pneumonia, nor in tuberculosis, that fresh air is of value. We find it indispensable in other diseases as well. Especially is this so in the treatment of children's diseases of various kinds.

In recent years more attention seems to have been given to the fresh air treatment of tuberculosis, and as a result we see a death-rate of almost one hundred per cent reduced to seventy or seventy-five per cent. Patients are actually brought back to a vigorous condition of health and vitality, who a few years ago looked forward only to certain death in a short time. Now it requires no argument to show that that which cures a disease will prevent the same disease. Then, knowing this, why should any one fear the great white plague? Have you hereditary predisposition thereto? Begin to take fresh air, and keep it up; and you will find it stronger to prevent than the law of heredity to cause. The main progress made by medical men in the treatment of tuberculosis in the last fifteen years has been in recognizing the fact that fresh air really cures those who recover; so now they have taken away medicines, and are giving fresh air.

The tendency to bring in a long list of drugs into the treatment of this, as well as other diseases, was, and still is, most unfortunate. It is indeed gratifying to note the rational trend of modern medical progress; but how slow the people are to accept, and put it into practise!

Fresh air brings a glow of health to the face. You who would be beautiful, as the Lord intended you should be, breathe fresh air. Is your complexion sallow or muddy? Is your face disfigured with acne or other blotches? Fresh air, persistently inhaled, will aid greatly in removing these, and give beauty to the complexion that can be given by no purchased lotion or powder. Take it internally twenty-four hours of the day.

Remove all constrictions from the waist, give the lungs the greatest freedom possible, poise the body over the balls of the feet, have the hips back and the chest forward, and then breathe; and don't forget to keep doing so. By this means sleep is brought to the sleepless; the blood being purified, all secretions become more effective, and the appetite is increased. Because of this the action not only of the lungs, but of the stomach, liver, and of the whole body, is improved.

When an insufficient supply of oxygen is received, the waste poisons are not destroyed as they should be, and because of this the blood moves sluggishly, and because of the effect of these poisons on the nerves, the small capillaries in the skin and extremities are contracted, and the feet and hands become cold and clammy. The blood, impure from the retained poisons, affects not only the lungs, but the heart, liver, stomach, brain, and, in fact, all the vital organs. The circulation is depressed, digestion is retarded, the brain beclouded, so that one's thoughts become confused.

It would be impossible to estimate the amount of misery, suffering, disease, and death caused by not breathing a good supply of pure, fresh air. Let us all be light-bearers where we find darkness concerning these truths.

Nevada, Iowa.

The Care of the Extremities

W. A. George, M. D.

Superintendent Nashville (Tenn.) Sanitarium

NO other part of the body is so neglected by many as are the extremities, and the results in sickness and death can not be estimated. Undoubtedly thousands die every year as a result of improper clothing of the arms, and especially of the feet and lower limbs. When either the upper or lower extremities are exposed to cold, there is a general contraction of the blood-vessels in those parts, and too much blood is forced into the internal organs and head. This condition may be followed by a cold in the head, sore throat, pleurisy, or pneumonia; by indigestion, inflammation of the stomach or bowels, congestion of the liver, inflammation of the pelvic organs, or by one of many other serious or fatal disorders.

YOUNG HIAWATHA

How frequently it is the case that a young girl just entering womanhood ignorantly or thoughtlessly exposes her feet and limbs to cold, and thus lays the foundation for a life of suffering. How often we see little boys and girls on the streets in cold weather with nothing but thin stockings covering the limbs from ankles to knees. No wonder these little ones so often suffer with sore throat from fall till spring, and are such fit subjects for diphtheria and pneumonia, and that so many of them are laid away before they are five years of age.

The clothing of men is, as a rule, so arranged as to prepare them for exposure, but it might be improved in many cases. Often the feet and ankles are not properly cared for. Men working in an overheated office many times suffer with cold feet, the upper part of the room being too warm, while the floor is cold. Under these conditions, a man will, before leaving his office, put on a heavy overcoat, and perhaps a cap and mittens, but nothing is added for the protection of his already cold feet. Men who suffer with cold feet should wear warmer stockings and underwear, and during the cold season wear cloth shoes with felt soles. Many men would find it to their advantage, when on the street in cold weather, to wear gaiters, or "spats," to protect the ankles.

In cold or wet weather few children are clothed in a way to give proper protection to the lower extremities. The underwear — union suits preferred — should be warm, and should reach to the feet. Heavy stockings extending the whole length of the limbs, added to the

underwear, will give fair protection to the child's limbs when indoor, or even outdoor in moderately cold weather; but in very cold weather, or when the child is to play in the snow, heavy leggings, covering the shoe-tops and reaching well above the knees, should be added. The shoes should not be tight, and should be sufficiently heavy and high-topped to give the feet and ankles good protection. In cold, wet weather the shoes should be protected with good rubbers; for wet feet may mean serious trouble later. If by accident the feet do become wet, the footwear should be removed as soon as possible, and the feet thoroughly warmed — best in many cases by a hot foot-bath — before putting on the dry clothing.

We should not forget the arms and hands of the little ones. The sleeves should be long enough to protect the wrists, and when outdoor in cold weather, warm mittens, with long wrists, which may be drawn up over the sleeves, and perhaps pinned to them, should be worn. If the extremities are protected as has been suggested, the child may play outdoors with very little more than the ordinary clothing for the rest of the body.

Nearly all that has been said applies equally to the clothing of women. It is a common practise for women to clothe the lower extremities very poorly while other portions of the body are weighted down with a burden of unnecessary clothing. Low shoes, thin stockings, and thin underwear, or often none, have been the cause of much poor health among women. The same is true of short sleeves worn in spring or fall, and in summer during the cool of the day.

Why should neglect or fashion make so many invalids, and fill our cemeteries with so many of our loved ones in the morning and noon of life?

PREPARED FOR THE COLD

When Baby Has the Croup

O. C. Godsmark, D. D. S., M. D.

FEW sounds are less welcome to the parent's ears than the brassy, ringing, almost crowing sound that announces the advent of croup. The child has been playing outdoors a greater portion of the day, and comes in at night with hands and feet both cold and wet. The mother has been busy with the many cares of the day, and little realizes that her little one is in danger of an attack of croup at night, which, unless earnestly and faithfully dealt with, is very likely to prove serious.

No one seemed to notice the heavy breathing and flushed cheeks when the child was put to bed. Perhaps the bed was in a damp, cold room, away from any fire, and the cotton sheets may have been put on fresh from the laundry, not having been hung by the stove before using. All these conditions predispose to a case of the croup, and should be carefully avoided.

Not having noticed the warnings that kind nature usually gives of the coming trouble, the first thing that is heard is the struggle for breath, and that crowing sound that announces that serious trouble is on hand, and that something must be done, and that immediately.

Could the case have been taken in hand at the very start, the simple warming of the feet before the fire or over a grate, the greasing of the throat and chest in the old-fashioned way, and a warm brick or flat-iron to the feet in a good warm bed, might have prevented all this trouble. One good preventive when the indications are that the child may be taken with croup during the night, is to place on the throat what is known as a heating compress; that is, when the child is undressed for the night, besides thoroughly warming the feet and limbs, wring out of cool water a heavy towel, just dry enough so it will not drip or run down the child's body, wrap it around the neck so as to completely surround it, then wrap another dry towel, — not just a small cloth, but a good-sized towel — about the wet one, so as to keep the clothing dry.

The little one will, of course, object to the cold cloth, and it may seem a little harsh; but within a few minutes the heat from the body will cause it to warm and become comfortable. In the majority of cases this is all that is needed, and a full night's sleep may be expected. In the morning the compress should be removed, the neck bathed in tepid water, dried thoroughly, and then anointed with some good oil or vaselin. Be careful not to expose the child to drafts, and keep him out of the snow and water, or a worse time may be expected the following night.

But what shall we do when the trouble develops in the dead of night, with no previous preparation? If the case is not too bad, the following will be found all-sufficient: Heat over the lamp or gas-jet one tablespoonful of salty butter, and give it to the child as soon as possible, being careful to have the butter hot, yet not hot enough to burn the child. The salty grease will cut the phlegm, relieve the spasms of the throat, and allow the

child to breathe. Also use the heating compress about the neck as already directed. If the room has become cold, have the heat turned on, or the fire built; for the case is serious, and you will do well if the patient drops off to sleep, and things move on as usual.

Where these remedies do not give speedy relief, you might as well get up and take hold of the case in earnest, and it may not be out of place to send for the family physician. If unslaked lime can be obtained, get some, and place a large piece in a pitcher or deep earthen vessel, and pour warm water over it, and with a shawl or blanket of some kind over the child's head, hold it so that it will breathe the vapors from the water slaking the lime. Do not suffocate the child, but have it breathe deeply of the fumes from the mouth of the pitcher. This will usually cut the membrane that is growing in the throat, and let it be coughed up. Where unslaked lime can not be had, the fumes of boiling vinegar may be inhaled the same way. Cloths wrung out of water as hot as can possibly be borne should be applied to the throat at the same time the vapor is inhaled. Keep the throat hot. In case this does not afford immediate relief, apply the cold applications, changing them frequently, so as to keep the throat cold, as this retards the growth of the false membrane.

Probably the best internal remedy that can be given is to breathe into the throat from an atomizer a hot saturate solution of chlorate of potash mixed with equal parts of hot lime-water and strong vinegar. Where the case does not yield readily, keep the patient warm, with the cold cloths or ice-pack about the throat. Continue this treatment until the physician can be called.

Chattanooga, Tenn.

Copyright, Underwood, New York City

SNOW SHOEING

Preventive Treatment of Sore Throat

W. A. Ruble, M. D.

Superintendent of Washington Branch Sanitarium

ALMOST all inflammations of the throat are caused by germ activity. The germs which are most commonly responsible for sore throat are the diphtheria germ, the common pus germ, the germ of influenza, or *la grippe,* and the germ of pneumonia. It is impossible to distinguish between these diseases in an early stage, hence it is very necessary to adopt curative measures early in any attack of sore throat. If left for several days, a sore throat may develop into any of the severe throat and lung affections. In the early stage of any of these diseases, the same treatments may be successfully applied.

Germs are but seeds of disease. When recently implanted on the membranes of the throat, they may be easily washed away or destroyed by some antiseptic gargle, spray, or other application. As obnoxious weeds can be more easily eradicated by destroying the seed, so can disease be most easily overcome by combatting the germs before they become firmly implanted in the tissues. When the germs first lodge in the throat, they may be quite harmless, but soon they imbed themselves in the tissues, and inflammation begins. Poisons are produced by the germs, and the reaction to these is what we call disease. The throat becomes red or congested. This is because the body sends more blood to combat the disease. Fever comes on. This is an attempt on the part of the system to burn up the poisons of the germs. Other symptoms present themselves, which show the activity of the body in fighting the intruder.

In every case of sore throat, some mild gargle should be used once every two hours, at least during waking hours, and every three or four hours at night. One of the best gargles is a dilute hydrogen peroxid solution. One part of this to four or five parts of water is the proper proportion. This should be fresh. Follow this in five minutes by a gargle of salt and water,— one-half teaspoonful of salt to a glass of warm water.

A solution of boracic acid, about two per cent, is also an excellent antiseptic, and may be used every two or three hours.

Whenever a disease is started in the body by germs, the white blood-corpuscles immediately attack them, and endeavor to destroy them. If the infection is not too severe, and the body and the white blood-cells are vigorous, the germs may be overcome. The attempt of the body to combat the invaders is shown by a reddening of the tissues, which means that more blood is being sent to the part which is attacked, so that more white cells can be on the field of battle. This process may be aided by means of a heating compress applied immediately after taking cold. This compress may consist of three or four thicknesses of cheese-cloth, long enough to go around the neck, and reaching from the chin to the chest, wrung out of cold water, and applied around the neck. This is covered immediately with two or three thicknesses of soft flannel, pinned snugly, so no cheese-cloth is exposed to the air. This compress should be changed every three hours.

If these simple precautions are observed, many severe cases of sore throat and some other dangerous diseases might be avoided.

Cancer: Its Cause and Rational Treatment

D. H. Kress, M. D.

Superintendent Washington (D. C.) Sanitarium

CANCER is one of the most fatal of all maladies. It is estimated that in the United States alone no fewer than one hundred thousand persons are afflicted with it, and that over fifty thousand die of the disease each year. In civilized countries the mortality from cancer has increased rapidly during the past twenty or thirty years. In England it has doubled; in Scotland it has increased more than fifty per cent; and in America the showing is no better. If this rapid increase continues, the mortality from the disease will soon equal that of tuberculosis.

Nothing exists without a cause; therefore we must ask: What are the causes of the prevalence and rapid increase in modern times of this fatal malady?

Predisposing Causes

There can be no cancer without the cancer parasite; in some way this seed must gain entrance into the body to make cancer possible. The seed itself will not grow without a previous preparation of the soil for its growth. Favorable general and local conditions must always exist in order to have the disease. The causes of the disease may be divided into three classes: (1) predisposing causes, (2) active causes, and (3) exciting causes.

The disease is not hereditary. Of 20,353 deaths from cancer in England and Wales in 1893, only 103 occurred in children under five years of age. If the disease were hereditary, it would appear earlier in life. If a mature person whose father and mother had cancer, has it also, the most likely supposition is that both parents and offspring lived in such a way as to induce it; that "like causes, acting on like organisms in succeeding generations, induce like results."

Dr. W. A. Jamieson, physician for diseases of the skin at the Edinburgh Royal Infirmary, in discussing the causes of cancer, expresses the belief that the increase in the consumption of butcher's meat, and especially the extensive use of beef, is one of the leading causes of the greater prevalence of cancer in modern times. There are many other authorities who hold the same view. Dr. Burney Yeo says: "Among other evils attending an animal dietary, one is that it favors the tendency, where it exists, to the development of cancer."

This agrees with the report of the mortality from cancer among the workers in Packingtown, who live largely on meat. In this report Dr. Guilford shows an enormous prevalence of cancer among these workers.

From returns collected in England by Dr. Roger Williams, it appears that of one hundred ninety-three cancer patients ninety-nine had been moderate eaters of meat, seventy-eight had used it sparingly, and sixteen had been excessive eaters of meat. There was not a single strict vegetarian among them.

Use of Pork

Drs. Verneurl, of Paris, and Roux, of Lausanne, France, a few years ago announced the view that the free use of pork is a very important factor in the causation of this disease. They observed

that orthodox Jews, who adhere closely to the laws of Moses, and abstain from the use of pork, rarely, if ever, suffer from the disease.

Free Use of Salt

Dr. James Braithwaite, of Leeds, England, asserts that excess of salt and excessive feeding, particularly of meat, are active causes of the disease. He observed that Jewesses are almost exempt from cancer of the uterus, which he accounts for by their abstinence from pork, so often salted or eaten with salt. Later, he admits, however, that "a man who eats salt in abundance will come to no harm if he eats meat sparingly, and lives as much as possible in the open air." This statement shows that meat, after all, is considered by him to be the chief causative factor, and not the salt.

Use of Beer

Dr. Alfred Wolff attributes the increase in cancer to the increased consumption of beer. It appears that Bavaria, Baden, and Wurtemberg are the three German states showing the largest consumption of beer, and these all figure in the list of those having a high cancer rate. In no country could any instance be discovered by him in which a large consumption of beer was accompanied by a low cancer mortality.

It is difficult, however, from these observations alone to say that salt is capable of producing cancer, or that beer is responsible for its increase, since the free use of salt, and also the free use of beer, are always intimately associated with meat-eating and meat-eaters.

Coffee and Tea

The use of tea and coffee also bears some relation to the prevalence of cancer, as has been shown by Hon. R. Russell. In his work on "Strength and Diet" he prints an elaborate table showing how the prevalence of cancer stands related to the use of these various foods and drinks in different countries.[1]

In Sardinia the death-rate is less than two to ten thousand; in Bombay, in 1875, the deaths registered from this disease were at the rate of only one in ten thousand; in Persia it is seldom met with; and in Egypt, Tunis, and Algeria there is a decided immunity.

	Cancer Rate	Flesh	Tea and Coffee	Tobacco	Beer	Spirits
England	high	much	very much	moderate	very much	moderate
Ireland	rather low	little	moderate	much	moderate	moderate
Italy	moderate	moderate	little	moderate	little	very small
Saxony	very high	much	much	much	much	much
Hungary	very low	little	little	moderate	little	very high

— From "Strength and Diet," Hon. R. Russell.

On the other hand, in England, America, and Australia, out of every ten thousand deaths, from two hundred eighty to four hundred seventy are due to cancer.

The people of Sardinia, Bombay, Persia, and Algeria are practically non-carnivorous, while those of England, the United States of America, and Australia are meat-eaters. From these facts it may be seen that abstainers from flesh

[1] The United States Census Bureau furnishes the following as the number of cancer deaths for each one thousand deaths from all causes, in the countries mentioned, for the four-year period ending 1905, also for the year 1905, each country showing a net increase: —

	1901-1905	1905
England	86.5	88.5
Ireland	68.6	74.9
Italy	54.9	57.6
Hungary	38.8	40.2
U. S. Reg. Area	68.3	72.1

are practically immune from the disease.

From the statistics given by Hon. M. Russell it appears that every country not using flesh meat, tea, coffee, beer, etc., habitually, has little cancer, or none; while the countries using the maximum of flesh, and of tea or coffee, have the highest rate of cancer.

It is also significant that the increase of cancer in every European and American community has followed an increase of the consumption of flesh, tea, coffee, and beer. It has also been observed that native races that adopt the European dietetic habits soon become subject to a great increase in cancer. Among the natives of New Zealand, cancer was unknown at the time when Captain Cook discovered the island. He described them as perfect in physique, and having no skin diseases of any kind. Since they have learned the habits of civilized man, cancer is a very common disease among them.

Doubtless tea, coffee, and beer act as predisposing causes; but of themselves they can not produce a single case of cancer. The statistics clearly show that cancer is confined to flesh-eating countries, and it has also been observed that the parasite singles out the flesh-eaters in those countries.

In Australia and New Zealand, contrary to what we find in other countries, in the rural districts the disease is more prevalent than in the cities. This is accounted for by the fact that the Australian does not pay much attention to raising vegetables or fruits, the entire inland country being given up to pasture. The food of the country people is meat, white bread, and tea for breakfast, for lunch, for dinner, and for supper. In Australia more meat is consumed by the inhabitants of rural districts than by those of the city; in other meat-eating countries the reverse is the case. This explains why cancer is more common in the rural districts of Australia, while in Europe it is more prevalent in cities.

NORTHERN COSTUMES

Treatment of Tuberculosis

G. H. Heald, M. D.

AS soon as it dawns upon one that he has contracted tuberculosis, he should accept it as an emphatic admonition that he must immediately inaugurate a vigorous reform in his habits.

The presence of tuberculosis is evidence of a run-down condition, the result, usually, of faulty habits of life. The prognosis — that is, the probability of a cure — depends, in any given case, largely upon the character of the patient, his intelligence in adopting right measures, and his perseverance in adhering to them until success is achieved.

In order to treat successfully a case of tuberculosis, there are certain "don't's," or negative admonitions, that are fully as important as the positive admonitions.

1. Don't postpone active treatment, for every day's delay lessens the chance for recovery.

2. Don't attempt to get along without skilled advice, if you can possibly obtain it. The experiment may cost you your life. One is not apt to be most judicious in the management of his own case. Even physicians, when seriously ill, prefer to place themselves under the care of a fellow physician.

3. Don't depend on drugs, or patent medicines, or advertised remedies. These mask the symptoms, fool the patient, use up his little fund of money, and leave him eventually much worse than before using them. There are absolutely *no drugs good for consumption,* in the sense of stopping the disease process and building up the patient's health. Anything which claims to do so is a fraud, no matter how plausible its representations. Some drugs stop the cough by deadening the irritated nerve ends. Others relieve other symptoms; but they usually leave the patient worse off than before their use, and they should in no case be used without the advice of a physician.

4. Don't give up the fight until the disease is completely mastered. This is not a matter of days, but of months, and probably of years. There is a strong tendency to give up treatment as soon as the active symptoms disappear. This is a fatal mistake.

Exact directions can not be given in a brief article in a publication like this for the management of a consumptive case, for no two consumptives are exactly alike as to their requirements of rest, exercise, food, etc. In every case there is a right method of procedure adapted to that particular patient, and many wrong methods; and the patient who attempts self-treatment may thereby let slip his last opportunities for a favorable outcome.

It is hardly necessary nowadays for the poorest consumptive to be without advice, and often he can obtain free treatment, and even suitable food. The larger cities have dispensaries — perhaps several in one city — for the free treatment of the poor. One unable to pay for

such service should accept it, without hesitation, not as a matter of charity. It is a duty he owes his family and neighbors to overcome the disease; and acceptance of the service is, under the circumstances, a public benefaction. In any case, one should have the advice of a doctor, or at least of a visiting nurse.

Curative Measures

SUNSHINE. The more the better, when it is not so hot as to be debilitating. It is usually better to shade the head.

FRESH AIR, as many hours a day as possible, the more the better. Fresh air is always in order, winter and summer, hot or cold, rain or shine; but the patient should be fully protected from the cold by adequate wraps, and should be shielded from the wind and the rain.

HEALTHFUL SPORT

FOOD, nourishing and easily digestible, sufficient to cause a steady gain in the weight of the patient until he regains his normal weight.

REST, absolute, in a horizontal or semi-reclining position while the temperature is up, or is easily disturbed by exercise, and more or less rest during the entire progress of the treatment, in accordance with the individual needs of the patient.

EXERCISE. None, without physician's permission when temperature is more than 99.5°, or when it rises easily as a result of exercise, but carefully graduated and increased as the patient progresses toward health.

It is well, if possible, for the patient to have a reclining wheel-chair, a steamer-chair, or a sofa — something on which he can recline or lie down — on a balcony or porch, so arranged as to give sunshine and fresh air without too much heat, and without exposure to rain and high winds. The sleeping-cot may be on the same balcony, which may, indeed, serve as the general living-room for the patient. When it is not practicable to have a balcony for the patient, the advantages of fresh air may be obtained by having the bed next the open window, and using some such device as the sleeping tent, which permits the patient to sleep practically in the open air without cooling off the room. Such a device is not necessary, of course, in summer.

The cure of tuberculosis is primarily a matter of hygiene. We have no successful method of destroying the tubercle bacilli in the lungs and other deeper tissues. The only successful way to overcome the disease is to build up the natural defenses of the body so that they may have full play in their warfare against the disease germs. The cure of tuberculosis consists primarily, then, in *right living.*

One becomes susceptible to tuberculosis because his defenses are weakened. As a result of carelessness, or a lack of knowledge regarding the proper care of the body, he has become more or less "run down." The cure may involve the correction of habits of a lifetime.

A most important problem in the treatment of tuberculosis is that of nutrition. It may almost be said that a person always becomes dyspeptic before he becomes tuberculous. It is not the well-nourished, but the ill-nourished, who succumb to the disease.

Therefore a prime measure in treatment is to enable the patient to digest a liberal amount of food. In many cases he has for a long time eaten very sparingly because of poor appetite, and this because of inability to digest the food properly. Perhaps, if he eats a fairly liberal amount, he suffers certain dyspeptic symptoms, and so he has accustomed himself to a very light diet, believing it to be all that he needs. Little by little the poorly nourished organism has deteriorated, until it becomes an easy prey to the ever-present tubercle bacillus.

hygienic and dietetic conduct of such cases, who does not attempt to treat the disease, but who individualizes in his treatment of the patient.

The patient should have sufficient food to build up the system that has run down under former feeding habits. The food must be nourishing, easily digested, and of sufficient variety to obviate tiring the patient, and of sufficient quantity to insure a gradual increase in the weight until the normal is reached. There must be a constant variety, and the dishes and service should be such as to tempt the

ICE-YACHTING IN CANADA

That is the history of very many cases of tuberculosis. The fact is, most of us are constantly exposed, more or less, to the bacillus of tuberculosis; and in very many, the germ obtains a slight foothold, which immediately stimulates the defensive machinery of the body, and as a result the disease is thrown off. Not so the person who is run down. The germs gain a foothold, the body defenses are unable to cope with them, and unless something is done quickly to build up the general resistance of the body, the patient gradually but surely succumbs.

This is one reason why one who is tuberculous should not attempt to treat himself without advice from a capable physician,— one who understands the

patient's appetite. If his appetite is weak, he should be taught to eat to a certain extent as a matter of principle. He will soon take pride in his gain in weight, and this, with the effect of the outdoor life, will usually bring about an increase in the amount of food eaten and relished.

Among the nitrogenous, or flesh-forming, foods that the patient can usually use freely are milk and eggs. Then there are certain nut foods which serve a good purpose in some cases. If digestion is good, some of the legumes, such as peas, lentils, and beans, thoroughly cooked and passed through a colander, may be useful.

The cereals may be taken in the form of dry breads, crackers, zwieback,

shredded wheat, wheat berries, well-cooked rice, and perhaps some of the porridges and mushes.

The green vegetables, and especially the tender ones, should always be used when the digestion will permit. Fruits should also be eaten freely for their salts and acids, and for their disinfecting power, also because they act as appetizers.

But the staple articles should be those rich in protein, that is to say, milk, eggs, and the like. The fats are also important. Formerly these were supplied in the form of cod-liver oil. Now olive oil, butter, and cream are used for this purpose, and in the South, cottonseed-oil has been used with success.

Exercise must be adapted to the individual needs of the patient, and few general rules can be given. There is a great difference in the amount of exercise patients may be allowed to take. Some may be able to walk several miles a day without injury, while others may not be permitted to sit up.

As a rule, for patients beginning treatment, rest is more important than exercise.

Patients should always cease exercise when, or before, they feel the least bit tired. Exercise beyond this point is distinctly harmful.

Exercise should be gradually increased as the patient is able to bear it, but should always be well within his strength.

Exercise is always far more beneficial when it is taken out-of-doors.

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A TOBOGGANING PARTY

Healthful Garments for the Stout Woman

Dr. Lauretta Kress

Washington Sanitarium, Takoma Park, D. C.

PHYSICAL loveliness consists in symmetry of parts. In childhood these are in perfect proportion. Later in life, for various reasons, women often develop an extra quantity of tissue about the hips and waist. This becomes a burden to them, impeding their progress, and causing them to be clumsy in motion. It is, too, an added weight to carry about; it interferes in stooping, bending, etc.; and it hinders clothing the body in an easy, comfortable way.

The stout woman envies the thin woman, and the thin woman often sighs for more flesh. Rare indeed is the woman who is satisfied.

The clothing for the stout woman is a perplexing question. In this article I wish particularly to speak of undergarments; for in clothing either a thin woman or a stout woman healthfully, we must begin with the undergarments worn.

DOES NOT HINDER FORWARD BENDING

ALLOWS FREE MOVEMENT OF TRUNK AND ARMS

NORMAL POSITION

Many women are such devoted worshipers of fashion that anything new, however unhealthful, will be worn at any cost. The stout woman, no matter whether her clothing is appropriate or becoming, must be in style. If it be folds or frills at the bottom of the skirt, or a short walking length (all of which make the stout woman look wider and more out of proportion), she must straightway follow the style. The abdomen and bust being prominent, the stout woman appears anything but graceful in such attire. So a corset, with wide, strong steels in front, and boned heavily all around, is worn to make a figure at all presentable. Such an outfit is stiff and unyielding, and the body is held in this casing until freed. It pushes the abdomen down and the chest up, and all comfort is lacking. A woman so dressed is unable to bend; she pants for breath in climbing stairs or hills; and the readiness with which she

parts with the corset when in her own room, speaks volumes as to its discomfort.

Various attempts have been made to get some garment that will insure to the stout woman freedom, comfort, and at the same time some degree of beauty. Bust supporters, girdles, and abdominal supporters have been made, worn, and discarded. The abdominal supporter of elastic holds the abdomen, but the steels in it push out of their casings and cut into the flesh.

A Takoma Park woman has succeeded in making an adjustable health waist and abdominal support, which seems to meet every objection, and at the same time to give perfect comfort. The laces are of rubber, and thus give perfect movement of the muscles of the diaphragm in breathing. The abdominal supporter is fastened to the waist with elastic laces, so in movements of the trunk forward or backward they will give and not impede the movements.

The supporters for the stockings are fastened in front and at the side, so that the abdomen is held down. Not a bone or steel of any kind is used in the garment, which makes it healthful and easy. The long piece fitted over the thigh is also an advantage, as it holds the flesh firm, and adds neatness to the figure.

Such a waist, with a suitable union suit, underskirts fastened to a corset waist or made all in one, princess style, completes the undergarments for a stout woman. Next month we will speak of the outer garment. The accompanying cuts explain the garment mentioned.

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SOME OLD-WORLD COSTUMES

HEALTH CATECHISM

L. G. Wagner

No. 6 — Exercise

WHAT is the purpose of exercise?

To secure an all-round development of body, with improved health and consequent better mental power.

Does exercise improve the morals?

Not necessarily so; though lack of exercise may indirectly cause a deterioration of morals.

What are some of the specific purposes of exercise?

Exercise may be taken to increase the circulation and tissue change; to increase elimination of waste products; to develop the muscular system, including the heart; to stimulate action of the digestive system, including the bowels; to build up a heavy muscular system for athletic purposes; to develop skill and rapidity of action, as in tennis and piano playing; to develop brain power, as in all exercises calling for fine and rapid adjustments.

Is it desirable for one who wishes skill in playing, for instance, some musical instrument, or in penmanship, or in some delicate work, like watchmaking, to indulge in the heavier muscle-building exercises?

It is not. Developing a ponderous muscular system is developing away from skill. The watchmaker or the violinist should not attempt to grow giant muscles by coarse, heavy exercise.

Is there danger of overexercise?

If one develops the muscular system until it is practically hypertrophied, it is necessary ever afterward to maintain comparatively heavy exercise in order to retain fair health. Many athletes permanently damage their hearts, and thus shorten their lives, by too heavy work. It must be admitted, however, that overwork is more rare than overeating, and perhaps not so frequent as insufficient exercise.

What is the source of energy in muscular contraction?

Every muscle cell is a minute engine, and contains fuel in the form of carbohydrates. This fuel is oxidized, or "burned," with the production of energy, which is manifested principally in the form of heat and muscular contraction.

What are some of the results of this tissue combustion?

A steam-engine in performing work utilizes oxygen and fuel, and has wastes in the form of smoke and ashes. The cells, when contracting, call for additional oxygen and food, and give off additional carbon dioxid (a gas the same as that in ordinary smoke) and other wastes.

How are these additional requirements of the cells supplied?

The heart beats faster, and the blood is thrown into the tissues more rapidly, supplying increased nutriment. The breathing is fuller, so that the blood, as it passes through the lungs, obtains a richer supply of oxygen to yield up to the tissues, and at the same time gives off an increased amount of carbon dioxid.

How is the increased call for nourishment met?

There follows an increased appetite, and generally better digestion.

What about the increased waste thrown off by the cells during exercise?

An accelerated blood and lymph current and deep breathing aid in the rapid removal of the carbon dioxid. The lymph is hastened in its movement from the tissues to the heart by the muscular contractions, carrying into the blood current the effete matter. The rapid blood current, the dilated skin vessels, and the increased perspiration dispose of a large share of the waste matter. The action of other eliminative organs is also stimulated.

Does exercise have more than a temporary effect on the body?

Repeated exercise effects more or less permanent changes. Exercise develops the parts exercised. The blacksmith's right arm is larger than his left arm. Exercise also builds up, though not equally, parts not exercised; for it increases nutrition, and this increased nutrition benefits all parts of the body, but particularly the part exercised. Every organ and function is stimulated and enriched by exercise, and the entire body is made more efficient.

What are some of the cautions to be observed in taking exercise?

One should exercise so as to secure an all-round development. If the daily occupation throws undue work on certain muscular groups, exercise should be taken to bring into action the unused groups of muscles.

Increase in the amount and severity of physical work should be made gradually.

Exercise, to be of most benefit, should be taken at comparatively short intervals. Violent or prolonged exercise at long intervals, as a hard walk once a week, with no exercise the rest of the week, may be productive of more harm than good.

What are some things that should be avoided in taking exercise?

Avoid heavy weights, strain, and fatigue; avoid excitement and anxiety.

What is the effect of exercise upon the respiratory function?

No function of the body is susceptible of greater improvement from systematic exercise, or suffers more from lack of exercise, than the respiratory function.

The vital capacity and the chest expansion may be greatly increased by proper exercises.

Deep breathing, best taken in connection with other exercises, is one of the best preventives of consumption. Professional singers suffer less from tuberculosis than others.

What relation is there between exercise and the digestive function?

In a general way, all exercise calls for an increase of nutrition, and hence improved appetite and better digestion.

In a special way, every exercise which develops the abdominal muscles, as the various trunk movements, rowing, horseback riding, etc., have a favorable effect on the digestive apparatus, and, in fact, upon all the abdominal organs.

What relation exists between exercise and the circulation?

The heart action being increased, and the superficial vessels dilated, the blood is forced or drawn out of the portal system, the congestion of internal organs is relieved, and more blood reaches the extremities. It is an equalizing of the circulation which makes for better health.

What is the relation of exercise to elimination?

The elimination of carbon dioxid and the perspiration are increased, as already mentioned. The action of other eliminative organs is stimulated as well.

To live without sufficient exercise is to live with the body always half-poisoned. This condition of self-poisoning is one cause of the loss of appetite and poor digestion among sedentary persons. All the functions, through this self-poisoning, are more or less disturbed.

Can not one obtain as free elimination by hot treatments as by exercise?

The elimination of water may be as free, but the perspiration excited in a bath cabinet does not contain nearly so much waste as that excreted during exercise.

Is mental exercise as necessary as muscular exercise?

It would seem so. Muscular workers do not live so long on the average as brain workers. One who uses judiciously both mind and muscle has better health than one who uses either to the exclusion of the other.

What is the best kind of muscular exercise?

Walking, and the various occupations of the home, the farm, and the garden furnish most excellent physical exercise. Much depends, however, on the manner in which such work is performed. Slipshod habits of standing, sitting, or working result in an ill-formed and inefficient body.

What is the correct position to be maintained?

This is beautifully illustrated by the graceful, upright carriage of certain peasant women, due to their custom of carrying burdens balanced on the head. The head is erect, the chin drawn in, the chest expanded, the hips thrown back, and the weight of the body on the balls of the feet. All the movements are free, easy, and graceful, and respiration is full and regular. One way to attain this attitude is to balance several books on the head, and retain them there while walking or working.

Cooking Lessons — No. 3

George E. Cornforth

Proteid Foods

WE have found that proteid is that element of food which repairs waste and builds tissue. It is, therefore, a very important constituent of our food, for it is what our bodies are made of; yet only a comparatively small amount is needed. We might use the locomotive again as an illustration. We remember that the iron and the steel represent proteid, and that the coal represents carbonaceous food. After a locomotive is built and put to work, it must be supplied with plenty of coal and water, but only enough iron and steel are required to keep it in repair. So it is with our bodies. After they have reached their growth, we must supply them with plenty of carbonaceous food and water, but only a small amount of proteid is needed; however, that little *must* be supplied. To supply too little would be disastrous to health. But too large a supply is detrimental to health also, because, while an excess of carbonaceous food can be stored in the body, proteid can not be stored, and an excess of it must be carried off by the excretory organs, and if they are unable to dispose of it, rheumatism, gout, or neuralgia may result.

We said that three fourths of our food should be carbohydrate, and one eighth fat. The remaining one eighth should be proteid. Proteid is supplied in large quantity in meat, but it is not at all necessary to eat meat in order to get the amount of proteid which we need. Proteid is also found in beans, peas, lentils, nuts, nut foods, eggs, and milk, and, in smaller quantity, in grains, and, in fact, in almost all foods. The proteid of beans, peas, lentils, and milk is called casein; the proteid of eggs is albumen; and that of wheat, rye, and barley is gluten.

In the cooking of the proteid element of food, the same thought must be kept in mind as in cooking other food elements,— the process of cooking should aid in rendering food soluble. The white of egg, which is almost pure albumen, is a good example to use in illustrating the best method of cooking proteid. While the white of egg is not really soluble, it readily mixes with water; but boiling an egg makes the white hard and tough, so that it will neither dissolve in water nor mix with it, and it is less digestible than when eaten raw. From this we conclude that cooking proteid at a high temperature hardens and toughens it, and renders it less digestible. A fried egg is even less digestible than a boiled egg, because the hot fat is hotter than boiling water, and it makes the white of the egg very tough and leathery.

While the temperature of boiling water is 212° F., albumen begins to coagulate at 145° F., and sets into a jelly at 160° F. Therefore if an egg is cooked in water at 160° or 165°, the white will be jelly-like and tender, while the yolk may be soft or hard according to the length of time it is allowed to remain in the water. This result may be obtained without the use of a thermometer, as follows: —

Soft Cooked Eggs

Bring a dish of water to the boiling-point. Set it on the back of the stove a minute

or two, then put in the eggs, and leave them in for seven or eight minutes.

Hard Cooked Eggs

Leave the eggs in fifteen or twenty minutes, instead of seven or eight.

Omelet and scrambled eggs are also wholesome, if too much fat is not cooked into the scrambled eggs. In omelet and scrambled eggs the eggs are beaten, and when the yolk is thus beaten with the white, the white does not become hard and tough in cooking. A good way to make scrambled eggs is to beat the eggs, then add a tablespoonful of cream or milk for each egg, and cook in an oiled pan, stirring, or in a double boiler.

A high temperature has the same effect upon proteid, whether it is the proteid of eggs or of other foods; therefore long, slow cooking is the proper method for foods which contain a large amount of proteid, such as peas, beans, lentils, and peanuts. Long cooking, even just a little below the boiling-point, makes them most digestible. This is why the old-fashioned baked beans, baked in the ground, or those baked in the old-fashioned brick ovens for twenty-four hours or longer, were so delicious, and they would have been very digestible if there had not been so much pork baked with them.

Following is a recipe for baked beans without pork: —

Baked Beans

1 pint beans
1 teaspoonful salt
1 tablespoonful molasses
1 tablespoonful cooking-oil

Soak the beans overnight. In the morning drain off the water, parboil them, and then put them into a bean-pot. Add the remaining ingredients, and sufficient boiling water to cover them. Cover the pot, and bake them in a moderate oven for twelve hours or longer, adding boiling water when necessary.

Nuts, with the exception of peanuts and chestnuts, require no cooking. They are best eaten raw, but they must be well chewed, or ground to a paste before they are eaten. They should not be eaten between meals nor after a full meal, but as a substantial part of the meal. They may, however, be chopped and mixed with other foods, such as roasts and some puddings. They may well be combined with the legumes, because the legumes are deficient in fats, while the nuts have an excess of fats.

Peanuts should not be roasted, because they are thirty-eight per cent fat and twenty-five per cent proteid, and neither fat nor proteid should be heated to a high temperature. Peanuts are really not a nut, but a ground pea, and should be cooked in the same way.

Baked Peanuts

Blanch the peanuts by heating them in the oven till the red hulls may be cracked and rubbed off, but do not heat them enough to roast them. Rub them well, or roll them gently with a rolling-pin, till the skins are loosened, then winnow. Soak them overnight. In the morning put them into a bean-pot, add salt, and bake them, as you would beans, for twelve hours or more.

A more digestible peanut butter than can be found on the market may be made as follows —

Peanut Butter

Blanch the peanuts, being careful not to roast them. Grind them through a peanut-butter mill. Dissolve ten ounces of this raw peanut butter in one pint of water; add one level teaspoonful of salt; pour it into a can which has a tight-fitting cover, and steam four or fire hours.

This will be soft, and of a proper consistency to spread on bread. It must be kept in a cool place, otherwise it will sour, just as the common peanut butter sours quickly after it has been mixed with water. If it is desired to have this solid enough to slice, the same recipe may be used, adding one-half cup of corn-starch after the nut butter has been dissolved in the water, and cooking in the same way.

Chestnuts, which contain a small amount of fat and proteid and a large amount of carbohydrate, may be roasted.

Walnut Croquettes

1 pint of stale bread-crumbs
½ cup of chopped walnuts
1 egg
2 tablespoonfuls of cream
½ teaspoonful of salt
½ teaspoonful of sage
Water to moisten

Moisten the crumbs with a little cold water. Add the remaining ingredients, beating the eggs before adding. If the mixture is not then soft enough to form into croquettes, add a little more water. Form into croquettes. Roll in beaten egg, then in zwieback crumbs, place on an oiled pan, and bake fifteen to twenty minutes in a hot oven.

The most satisfactory way to make croquettes is to use a croquette mold, which may be purchased at a hardware store. In using this, a bit of the croquette mixture is dipped in the egg, then rolled in the crumbs, then pressed into the mold. The mold is then opened, and the croquette removed. These croquettes may be served with one of the gravies given in the lesson on fats.

Bean Roast

1 pint of bean puree (dry)
1 cup of granola
1 pint of milk
1 teaspoonful of salt
4 eggs
Sage and savory, if desired

Soak the granola in the milk for fifteen minutes, then add the bean puree, the beaten eggs, and the seasoning. Put into an oiled baking pan, and bake till set.

This roast has not the strong bean taste which many persons find objectionable in most bean roasts.

One-half cup of walnuts may be added to the recipe for Nut and Bean Roast. A nut milk, made by dissolving one and one-half tablespoonfuls of nut butter in one pint of water, may be used instead of the dairy milk. The roast may be served with —

1 quart of tomatoes
2 onions
1 level tablespoonful of sugar
½ cup of lemon-juice
Rind of one-fourth lemon
½ teaspoonful of celery-salt
½ teaspoonful of salt

Mix all the ingredients except the lemon-juice; cook slowly till reduced one half; rub through a fine strainer, and add the lemon-juice.

Hot cakes are sometimes used as a so-called "meat substitute." We will therefore include a recipe for —

Rice Griddle Cakes

½ cup of rice (raw)
1 cup of zwieback crumbs
½ cup of flour
½ teaspoonful of salt
1 pint of milk
2 eggs

Cook the rice according to the recipe for boiled rice given in the lesson on starches. Mix the crumbs, flour, and salt. Heat the milk to about 140° F., and pour it over the crumbs and flour. Let it stand till the crumbs swell. Add the boiled rice. Separate the eggs. Add the yolks to the mixture. Beat the whites very stiff, and fold them in last. Cook on a hot griddle, which has been oiled just sufficiently to keep the cakes from sticking. Serve with maple sirup.

Milk is more digestible raw than cooked, for the reason that a high temperature hardens the casein. But it may sometimes be necessary to cook milk for the purpose of sterilizing it. Buttermilk is more digestible than sweet milk. In fact, the acid of buttermilk is believed to have a beneficial effect upon the system. Kumyss, which is somewhat similar to buttermilk, but is made from fresh milk by the use of tablets, is in some respects superior to buttermilk. Cottage chese is a valuable proteid food.

Cottage Cheese

Take thick, sour milk, place it in a shallow pan on the back of the stove, and allow it to heat, but do not allow it to become hotter than you can bear your hand in. Heating it too hot will make it tough. As the whey separates, do not stir it, but cut the curd into cubes with a knife. When the whey has well separated, turn the whole into a cheese-cloth bag, and hang it up to drain. When it is dry, remove it from the bag, and season it with salt and cream.

The proteid element of wheat is called gluten. It is possible to separate it from the starch. Most of us have, I presume, in our childhood days chewed a mouth-

ful of raw wheat till we had nothing but a piece of gum left. That gum was the gluten. It may be obtained in larger quantity as follows: —

Gluten

Make a stiff dough of a good quality of bread flour; that is, use about four quarts of flour to one quart of water. Knead the dough thoroughly, then put it into cold water, and allow it to stand about one hour. Then work it carefully with the hands in the cold water, and the starch will wash out. Change the water till no more starch washes out, and the water remains clear.

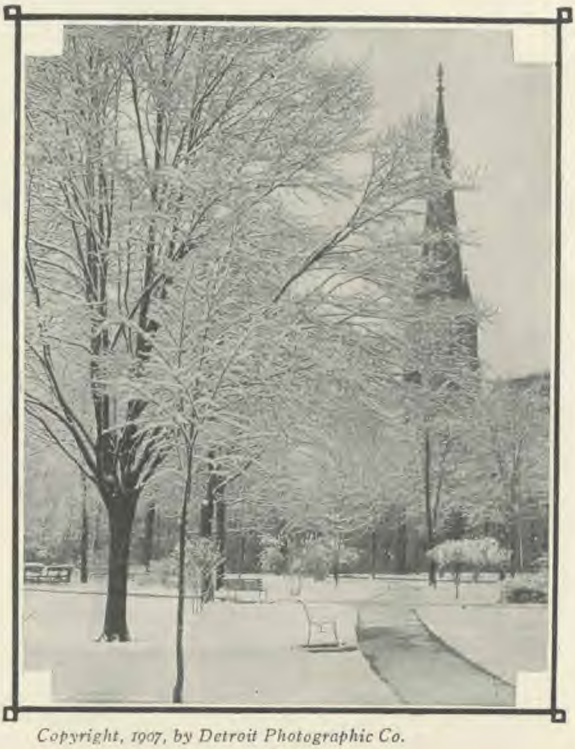
You then have a lump of gluten, a grayish, tough, rubbery substance, which requires long, slow cooking to make it tender.

Vegetable Gluten Stew

Cut up in small pieces a mass of gluten gum, and cook in salted water for three or four hours, and add some diced potatoes and onions. When they are cooked, some nut butter may be dissolved in the water, and a little flour thickening and salt added.

While condiments are universally an accompaniment of meat, it will be noticed that no mention of them has been made in connection with vegetable proteid foods. This is because spices and condiments are not foods, nor are they necessary additions to our food.

Two effects follow the use of spices and condiments — stimulation and irritation. The first results in a habit, the second in gastric catarrh. Condiments are not digested, and do not become a part of the body, nor does the use of any wholesome article of diet form a habit. Condiments and spices not only produce stomach trouble, but they deaden the taste so that the delicate flavors which God has put into foods can not be detected. More than that, they create a thirst which can not be satisfied with water, but must have something stronger, and thus they lead to intemperance.



LACE AND DIAMONDS

Clothing: A Hygienic Heresy

THE regulation of clothing according to temperature is a very important problem, and it is just as important to avoid overheating, and bathing the skin with a copious perspiration, whose subsequent evaporation and the resultant dampness of clothing will induce chill, as it is to avoid initial chilling. The outer clothing, and even the shirt, may be somewhat adapted to changes of temperature; the vest, at least, may be discarded or substituted by thin material, and it is a pity that the movement toward a shirt-waist male costume proved a failure.

But the principal regulation of the clothing according to external temperature, devolves upon the undergarments, overcoats, and overshoes. It is senseless to dress according to the calendar instead of the thermometer, though, at seasons when sudden changes are liable to occur, it is probably better to dress too warmly than not warmly enough. Still, it is an open question whether it is not better to rely on an overcoat carried on the arm for emergencies in the spring and fall, and whether a sudden fall of temperature can not be met better by one with insufficient but dry underclothing than by one who has been enervated by overheating, and whose skin and clothing are wet with perspiration.

A prejudice against woolen underwear has often been expressed; though, for the evenly cold months, in which the ordinary business or professional man has scarcely any visible perspiration, the thick and relatively impervious woolen wear may be better. It should be remembered that it is the air between layers of clothing and in its pores that keeps the body warm, rather than the fabric itself. Most persons find that woolen socks really tend to keep the feet cold, because there is almost always sensible perspiration, which the wool can not absorb so well as cotton. It is scarcely necessary to state that red flannel is no warmer than that of another color, and that, in general, the less dye used in clothing worn next to the skin, the better.

The principal fault of male attire in this country is not insufficiency of clothing in winter,— especially since the automobile has developed so many animated Teddy bears,— but redundancy in summer. For some years the writer has followed the expedient of having summer drawers made as loose, removable trouser linings, and substituting for the undershirt a large handkerchief held about the neck by a tape.

In women's clothing, three principal faults are noted: (1) Inadequacy, or rather, sudden changes involving relative inadequacy; (2) tightness; (3) dragging weight.

1. Inadequacy. Comparing men's and women's clothing, we find the latter generally much lighter, as regards the arms, neck, and shoulders, and the feet, ankles, and lower legs, while there is a tendency to extra thickness and density over the lower chest and abdomen.

2. Tightness. This unhygienic feature of women's dress is especially noted about the lower thorax and waist, and

on occasions, about the neck also. The characteristic superior costal respiration in women is largely, if not ultimately, entirely due to this factor. Visceral deformity, displacement, and interference with vital functions, are also due to the same cause. Even when the clothing is not tight in the strict sense, it is relatively less elastic and deep; inferior costal breathing is rarely possible, although no actual visceral compression occurs. The relative frequency of anemia and of certain pulmonary disorders in women is probably due largely to this factor; and the conventional dress, even in women of slight build who do not lace tightly, is often a marked obstacle to lung expansion and to the cure of incipient phthisis.—*A. L. Benedict, A. M., M. D., in the Medical Times.*

The Children's Garden Invades the Slums

THE vitality of the children's garden movement is shown by its invasion of the city slums as a feature of settlement work. What was probably the only vacant lot in one of Boston's most congested tenement districts was transformed during the past summer into a garden for children of the crowded North End. The credit for introducing this garden into the lives of the children belongs to the Elizabeth Peabody Settlement of 87 Poplar Street.

Despite all the previous efforts of the settlement workers of this district in conducting day nurseries, kindergartens, and children's clubs, there was little that was wholesome to occupy the children out-of-doors. Their time was spent largely in the filthy streets. To be sure, the city had made ample provision for playgrounds in a near-by park, but in spite of this playground, Poplar Street was crowded throughout each summer from forenoon to late into the night with the restless child-life of the slums. The vigorous natures and hungry spirits of these children met with little chance for wholesome exercise or satisfying and uplifting occupation.

The coming of the garden into the lives of these children has changed their environment for the better. The beauty of the flowers has been added to the former bleak outlook of the brick walls and bill-boards. The opportunity to make something grow has given the children a new insight into nature and a useful occupation that is also highly pleasurable. Little hands that before could find nothing but mischief are now kept busy tending the precious plants, and eyes that fed only on the kaleidoscopic life of the street can now absorb the quiet beauty of the flowers.

The garden accommodates about two hundred children, from the merest tots to others perhaps twelve years of age. The gates are open during the greater part of the day, because it is felt that time spent in the garden, even if unnecessary, is better spent than on the streets. The children flock eagerly to the garden each morning to delve in their individual garden plots, to water the plants, to weed, and to gather flowers and vegetables to take to their homes. Everything about a garden is new to them, but under the guidance of a teacher they learn many simple and useful facts about plants.

Eyes trained to the barrenness of the slum's horizon are for the first time made to realize the productiveness of the soil, through seeing plants grow in it under their own care. Besides what they ac-

tually learn, the children have in their garden a refuge from the noise and filth of the street, and some beauty to offset the prevailing ugliness and unkemptness around them. All this effect of the garden may be unconscious to the child, but it is real. As the sunflower and the morning-glory respond visibly to the subtle rays of the sun, just so surely does the child respond to the influences of his environment.— *Maxwell's Talisman, November, 1908.*

"Only a Cold"

COLDS are among the most frequent of the so-called "minor ailments," and are perhaps especially frequent in this country. The reasons for this prevalence of catarrhal states in America have been variously stated. One cause, and possibly the chief cause, is that the houses and offices and public buildings of every description are generally overheated, and especially that the air in them is overdry, rendering those who spend a great part of the day under such conditions peculiarly susceptible to the influence of variations of temperature. It is curious to note that the majority of persons look upon the complaint known as catarrhal fever ["cold"] as trifling. "Only a cold" is a stock figure of speech. And few realize that from so [apparently] trivial a source spring diseases which kill and incapacitate thousands.— *Editorial, Medical Record.*

The Air We Breathe

SCIENCE is making us wonderfully careful of the water we drink, the milk we have delivered to our houses, the process by which our meat is dressed or cured, the use of chemicals as food preservatives, and pretty nearly everything else that goes into our stomachs — all of which is mighty wise. Then we have safeguarded our health, as well as shut off some rather unruly emphasis of speech, by screening out the flies and mosquitoes. Yet all this time we deliberately expose ourselves to an evil quite as great in the bad air of our churches, theaters, and street-cars.

Auditoriums ought to be generously ventilated, not just aired occasionally. There should be a steady inflow of fresh, pure air, and a wide orifice for the escape of the bad air. Then, if need be, a thousand dollars or so should be spent on fans to suck in the one and expel the other.

How many of our churches take such precautions for the health of their worshipers? How many of our theaters? Yet any service or any theatrical performance which obtains any considerable public support assembles scores of human beings whose lungs demand oxygen, and, having extracted it from air, breathe out gallons on gallons of air unhealthful, heavy with germs, and more often than not bad smelling.

And our street-cars! With electric heat, they are not too cold on the wintriest day. Yet even in the mild month of November, we close the doors and batten down the transoms, and then — men and women of all conditions, degrees of

cleanliness, states of health — we remain cooped up together, breathing one another's worn-out breath, with the street outside doing its best to worm a little fresh air through the crannies.

How can we correct all this? — Make a kick. Let the sexton of your church hear about it, the manager of the theater. Then in the street-car open the transoms yourself. If the conductor objects, report him to the company. If that does no good, there will be time to see if — with this extra need for it — Congress can not be persuaded to provide the supervision over our street railway systems, of which the officials of those systems seem so much afraid.— *Washington Times.*

The Outcome of a Newspaper Slander

MANY of our readers will recall the fact that more than six months ago [eighteen months] a Philadelphia newspaper grossly misrepresented certain remarks made in a medical meeting by Dr. S. Adolphus Knopf. It will be remembered that the newspaper in question represented Dr. Knopf as having spoken in favor of "euthanasia" in the newspaper sense of the term. . . . The Philadelphia paper's slander was copied far and wide. . . . We are now glad to be able to record the fact that a suit brought by Dr. Knopf against the paper has been settled out of court, the paper paying Dr. Knopf a handsome sum in damages, and publishing a correction of its original libelous statement. The amount of money received by Dr. Knopf from the newspaper has nobly been turned over by him to the funds of the National Association for the Study and Prevention of Tuberculosis." — *New York Medical Journal.* [LIFE AND HEALTH contained a protest against this slander in the issue of November, 1907.]

The Life of a Monkey as Against the Life of a Man

IN several States, New York and Massachusetts, for examples, an effort is made to induce every legislature to pass an act prohibiting the vivisection of animals for medical research. Such prohibition has not yet been made, and perhaps it never will be in any enlightened community; but large and energetic organizations of sentimental, emotional, or ill-informed persons make it the business of their lives to keep up the agitation.

It might be well, if it were possible, to put some restrictions on the practise of vivisection, prohibiting its wanton use by persons who have no serious purpose — if there be such persons. But the use of living animals for experiments, with the trained and intelligent purpose of advancing the sum of medical knowledge, is fundamentally necessary for the conquest of some diseases, and for the intelligent treatment of others. Let one single example suffice: —

Dr. Simon Flexner, director of the Rockefeller Institute for Medical Research in New York, discovered a serum which, injected into the spinal cavity,

cures cerebrospinal meningitis, a disease that had hitherto shown one of the highest ratios of fatality; and even when it did not prove fatal, it often left the victim a wreck for life. This treatment is now used all over the world, and it has cured over seventy-five per cent of the cases in which it has been used. It is fair to say, therefore, that this dreadful malady is now added to the list of conquered diseases. Dr. Flexner, in telling about his discovery of the serum which cures meningitis, said: —

"That is the advantage of experiments upon animals. Once we have tried our remedies with satisfactory results upon animals, there is very little risk to human beings; and of course in treating the latter we shall proceed with the utmost caution.

"Take my own serum for spinal meningitis, for instance. Without monkeys we could never have discovered that. First, we had to prove that the monkey really had meningitis, and then we could go ahead with experiments for its cure. We injected the serum into its spine, and found it did good; at any rate, it did no harm. So we could inject it into the spine of a human patient with confidence that we were not doing him any harm."

That is to say, if Dr. Flexner had been prevented from experimenting on living monkeys, eighty-five per cent of the persons who fall ill with this disease would now die, as eighty-five per cent formerly did, and most of the remaining fifteen per cent would be made wrecks for life; whereas, now, seventy-five per cent of the cases that are treated with this serum make complete recovery. — *World's Work, July, 1908.*

Tubercle Bacilli in Butter

ALTHOUGH we hear a great deal about the danger of tuberculosis from milk, there is, strangely enough, comparatively little said about the other uncooked dairy products, butter and cheese.

Nevertheless there is reason to believe that butter, at least, is an important medium for the introduction of tubercle bacilli into the human alimentary tract. Knowing that bacilli are heavier than water or milk, we naturally imagine that they settle to the bottom of the milk when the cream is separated by either centrifugation or natural gravity; but this, unfortunately, is not the case. In experiments made at the bureau of animal industry, it was found that tubercle bacilli present in milk soon collect in about equal proportions in the sediment and in the cream, no matter by what method the cream is separated, leaving the skim-milk relatively free from bacilli. Apparently many of the bacilli so adhere to the droplets of cream that they are carried upward in spite of their own higher specific gravity, with the result that the separated cream is richer in tubercle bacilli than a corresponding quantity of the fresh milk from which it is obtained.—*Editorial, Journal of the American Medical Association.*

Abstracts

In this department, articles written for the profession, which contain matter of interest to LIFE AND HEALTH readers, are given in abbreviated form. Where practicable, the language of the author is given, but often the language is abbreviated, or else paraphrased in popular language. Technical matters and portions of articles having no popular interest are omitted.

The Care of the Mouth During Infancy and Childhood

THE hygiene of the mouth has been sadly neglected until very recently. Already the good results of medical and dental school inspection are seen.

Childhood can be divided into (1) a toothless period, (2) a period of dentition, (3) a period of rest, (4) a second period of dentition. But the whole period from birth to the thirteenth year, and even before and after, is one of tooth formation and development.

The proper care of the mouth during these periods will insure healthy mouths, and will remove the important cause of many diseased conditions, some of which may leave lifelong evil effects.

There is a great variety of opinions regarding the value of cleansing the mouth for the first six months. For the breast-fed infant, where the breast is antiseptically cleansed before each feeding, there is no need of such a procedure; but in the case of artificially fed infants, the mouth should be cleansed with soft cotton swabs applied on an applicator or stick of wood (toothpick). Some antiseptic cleansing solution should be made up from one of the alkaline antiseptic tablets, dissolved in water.

The use of pacifiers should be discouraged, because they frequently carry infectious material into the mouth. The nurse who moistens the nipple or pacifier with her own lips before giving it to the child, exposes it to great danger.

During the period of first dentition, do not rub the teeth through, as this may cause infection; do not poke dirty fingers into the mouth. Keep the mouth clean. Most difficulties of dentition can be avoided by looking after the digestion.

After the first teeth have appeared, and the diet is changed, use, after each feeding and before retiring, a soft brush which will not lose its bristles. A little antiseptic solution, prepared by dissolving an alkaline antiseptic tablet in water, should be used. Have the mouth regularly inspected by a dentist. In case cavities form, these should be promptly filled, in order to avoid extraction before the proper time.

To extract the milk teeth before they are replaced by permanent teeth is to produce irregular teeth, an unsightly mouth, and perhaps abnormal breathing. It is almost more important to retain the temporary teeth until nature replaces them, than to retain the permanent teeth. In natural development, the milk teeth are pushed forward by the developing permanent teeth, and the jaws are properly enlarged. By removing a tooth prematurely, this enlargement of the jaws proceeds unsymmetrically, and the dental arch is irregular.

It is also an error to retain temporary

teeth too long. Because of dead pulp or other unhealthy conditions, the root of the temporary tooth may not be absorbed, and the permanent tooth may appear out of its proper place.

The thumb-, tongue-, and lip-sucking habits cause malformation, resulting in imperfect mastication and mouth breathing. The pernicious habit of biting the lower lip moves the upper front teeth forward, and results in deformity of the dental arch. The habit of resting the tongue between the upper and lower teeth will have a similar effect.

Careful dental inspection is necessary in order to avoid such irregularities. Irregularities caused by the untimely extraction of teeth take months for reduction.

No intelligent physician will tolerate a focus of infection anywhere, yet the mouth — a perfect breeding-place for micro-organisms — is almost ignored. Pus may exist here for years, and germs be allowed to enter the body through abrasions and decayed teeth.

There is no doubt that secondary anemia, associated with lowered vitality and great foulness of the alimentary tract, results directly from mouth infection. Not only is there local absorption of toxins, but the infection is continuous throughout the alimentary canal. "Look after the ends of the alimentary canal, and the middle will look after itself."

All that has been said about filthy mouth conditions producing tuberculosis in adults is more emphatically so with children. Infected and ill-cared-for mouths are the forerunners of disease.

The care of the mouth can be outlined in one sentence, "Keep the mouth clean." This applies to adults as well as to children; but the earlier the habit begins, the better.— *Wm. J. Lederer, in Medical Record.*

The Common Cold

OUR zeal and interest in a disease should be proportional to its frequency. To call trifling a disease which incapacitates members of all classes of society oftener than any other, and which initiates so many severe ailments, is a travesty on facts. This scourge is allowed to run riot, practically ignored by medical leaders.

A cold may be defined as a local inflammation of any part of the respiratory tract, and includes the so-called colds in the head, sore throats, and tracheal coughs. The word "fever" is avoided, as any rise of temperature is usually local, the body temperature being usually normal, or even subnormal. Colds are acute at the onset, but may go on to a chronic stage, lasting even twenty years, intensified by occasional fresh attacks.

There are the following stages: (1) local anemia; (2) increasing hyperemia, or congestion, with, perhaps, dryness and tickling of the palate, and sneezing, followed by a feeling of malaise and chilliness; (3) greatly increased secretion of mucus, perhaps sore throat and cough, headache, constipation, loss of appetite, etc.

The essential factor is an occurrence of infection; but this alone will not cause cold, unless the dose be large, or the germs be especially virulent. In fact, a large proportion of people have in their air-passages the germs which ordinarily produce colds.

Colds are more dangerous for the very young or very old than for those in mid-

dle life; but all ages take cold with about equal facility.

Those who live much in the open air seem to be less liable to colds. To learn the influence of fatigue and lack of food, one day in winter I went all day without food, took excessive exercise, and returned home covered with perspiration. *Quickly stripping, I stood, heated and exhausted, at an open window for ten minutes till thoroughly chilled.* Although the bacillus of Friedlander [one important cause of cold] was then in my nose, as I had proved the day before, *no cold developed.* A fortnight later, *warmly clad and well fed, I caught an unsought-for cold.* [Italics inserted.—ED.]

Certain experimental considerations lead the author to the belief that one condition predisposing to a cold is a local disturbance of the circulation, reflex in nature [this belief is by no means original with him, however], and he suggests that this can often be removed by substituting another reflex, as by hanging the head out of the open window, or by sponging the skin of the body with cold water, or, if the affection is only on one side, by inclining the head to the other side.

The best form of treatment is prevention. One with a cold should realize that he is an infectious case, and as far as possible avoid contact with others, especially an old, infirm person, or one having chronic bronchitis or advanced heart-disease, where an attack might prove fatal. Infected handkerchiefs should be sterilized as soon as possible, sprinkling them with a drop or two of formalin occasionally. Invariably a sneeze should be received in a handkerchief. The patient should, for his own sake and that of others, avoid crowded assembly rooms, and during the acute stage should remain in his own room.

The new sufferer can do much to ward off attacks. In fact, no one has any business to catch cold, except through mischance. Due attention should be paid to the daily toilet of the body and the teeth. The nose, especially in the atmosphere of crowded cities, should be douched each night at bedtime, and if agreeable, on arising, with warm alkaline antiseptic solution. [Alkaline antiseptic tablets can be obtained of the druggist.] Many persons subject to colds have become immune by this simple procedure. At the first symptom of approaching cold [before the increased discharge begins] the nose should be douched, and the throat gargled. There is some danger, after the onset of the stage of discharge, of transmitting the disease to the ear, or other localities, by means of the douche.

The diet, especially the proteid, should

WINTER SPORT
Belle Isle, Detroit, Mich.

be restricted, and particular attention should be paid to the bowels and kidneys. Avoid constipation.

The most useful medicinal means for shortening an attack of cold are, perhaps, oil of cinnamon and oil of eucalyptus. These are antiseptic, and are excreted by all the mucous membranes. The oil of cinnamon should be given in twenty-minim doses in milk, hourly, for three hours, then fifteen-minim doses every other hour for two doses, then ten-minim doses every three or four hours. [This is presumably intended for adults. For children the dose should, of course, be smaller.] If the patient can at once take to bed, cure is usually complete in thirty-six to forty-eight hours, or even less. Oil of eucalyptus requires more care in its administration, and should be pure; ten to fifteen minims may be taken every three or four hours on sugar. The effect may be increased by adding five or six drops to boiling water and inhaling the steam.—*Dr. W. R. Allen, in London Lancet.*

The Relation of School Education to Our Social and Industrial Life

EDUCATION is a life process. The education of the school and of the after-life should form one continuous process. The school must therefore educate with reference to the conditions of life. As these conditions change, school education must also change.

A hundred years ago life was simple, and largely rural; now it is largely urban, and very complex. Then children obtained, out of school, physical exercise, contact with nature, recreation, training in work,— sewing, cooking, etc.,— and apprenticeship at a trade. The modern life has largely swept these away, and the school must supply physical culture, nature study,— not from books, but from nature,— playgrounds, manual training, and industrial training. There should be technical and commercial high schools, as well as literary ones.

Our economic problems have become immensely complex, and our schools should give a thorough course in economics.

Because of the specialized work of the modern factory, a workman learns nothing new at his trade. To prevent stagnation there should be fewer hours of work, and evening schools, giving instruction in industrial topics and drawing, should be established.

In Germany there are schools in which a man may obtain a training for any calling which he may choose. Berlin has twenty-eight trade- and industrial-schools, among which are schools even for barbers and chimney-sweeps. "Germany trains its workmen" as no other country does, and the German army we have to fear is not the army carrying guns, but the army which carries tools.

"From all this, it becomes clear that our schools, in spite of many reformers, are still too bookish. Education is much larger than a mere knowledge of books. Reading, writing, and arithmetic are not the only essential studies of the elementary schools; physical training, nature study, sewing, cooking, manual training, drawing, are quite as essential.—*Thomas M. Balliet, New York University, address delivered before the Assembly of Mothers, Oswego, N. Y.*

The Prevalence of Hydrophobia

NOTWITHSTANDING the fact that the organ of the humane societies has denied the existence of hydrophobia as a distinct disease, and that many prominent (?) physicians support the assertion, I shall consider it as such.

Hydrophobia (called rabies in animals) is an acute infectious malady of the central nervous system, principally occurring in carnivora, and to some extent in herbivora, communicated to one another and to man by a bite of an infected animal, and productive of symptoms resulting fatally.

Rabies was discovered five hundred years before Christ, but not in man until two hundred B. C. Since this date many ancient and modern writers have described the disease.

In 1813 the saliva was proved to be the means of infection. In 1823 the saliva of hydrophobia patients was shown to be capable of producing rabies in dogs.

In Russia hydrophobia is common, owing to the frequent bites from wolves. In North Germany it is comparatively rare, because of the German law requiring dogs to be muzzled. England has had several severe epidemics of rabies; but since the muzzling order in 1897, the disease has greatly diminished; and in 1899, the first time in fifty-one years, there was not a single hydrophobia death in England.

There have been a number of severe epidemics of rabies in America, and hydrophobia has been shown to be more frequent in the United States (Salmon, United States Department of Agriculture Year-Book, 1901) than is generally supposed. The vital statistics of the last census show one hundred forty-three deaths from this cause from thirty States.

The writer, from a residence of eight years in the Philippines, has a personal knowledge of thirteen persons dying of hydrophobia. Other physicians abundantly testify to the presence of the disease in the islands.

Hydrophobia is not less prevalent in winter than in summer. About two fifths of all cases in man are in patients under fifteen years of age. Fewer women than men and children are infected, perhaps owing to the protective nature of the clothing. The disease is never spontaneous, but is communicated through the bite of a rabid animal. All domestic animals are susceptible to the disease, though on account of their habits, it is more prevalent among dogs and cats.

In the great majority of cases the disease is communicated to man through the bite of rabid dogs, occasionally cats, and rarely wolves and foxes. The disease can be passed from animal to animal, from animal to man, and from man to animal. The transfer is usually made through a wound, commonly a bite, though it may occur through a diseased animal licking an abraded surface. It is possible the disease may be acquired by absorption from the gastro-intestinal tract, for some animals eating animals dead of rabies have contracted the disease. One man is said to have contracted the disease by loosening with his teeth a knot in a rope with which a mad dog had been tied. Wounds in the head and face are especially dangerous.

The disease is usually communicated by a rabid animal wandering at large, often over great distances, and biting other animals, such as dogs, cats, horses, and cattle.

It is estimated that from one sixth to one half of the persons bitten by a rabid animal become victims of the disease. The bite from a mad wolf is much more dangerous than that of a dog, owing to the severe lacerations; and the cat's bite

is more dangerous than that of the dog, because it usually bites some exposed portion, the dog most frequently biting through the clothing, and in this way wiping off a portion of the virus.

"Rabies is not a common malady in animals, and hydrophobia is rare, comparatively speaking. [Rare, as compared with the ordinary diseases which carry off the human race].—*F. W. Dudley, M. D., in Journal of the American Medical Association.*

Breathing Cure of Tuberculosis

UNTIL recently it was generally supposed that the tuberculous lung should have absolute rest. The writer has had an extensive experience in giving breathing exercises not only in ordinary cases of consumption, but also in cases complicated by bleeding, with the most successful results.

The method used is based on the facts, demonstrated by experiment with accurate apparatus, that by thought the blood can be determined to various portions of the body and brain.

The application of this principle can be best accomplished by placing the patient before a mirror, having him concentrate his mind on each movement, and instruct him to go through the various breathing exercises slowly and deliberately.

The exercise accomplishes the following: increased intake of oxygen, helping to burn up the wastes and poisons; increased flow of blood through the lungs; blood forced into the unused parts of the lungs, improving their nourishment, and helping to wall up the diseased areas; increased demand for food.

Breathing is the most important active function of the body, and all other functions depend upon it. Primarily we live on air.

Deep breathing as a fine art has to be taught! The majority of people are half alive, for they breathe just enough to sustain life, effortless and nearly lifeless. We should breathe pure air, and in the greatest possible quantity.

The patient should work before a mirror, concentrate the mind on the physical effort, and what is to be accomplished. In breathing he should take deep inhalations, and in exhaling, expel as much air as possible without holding the breath, and never continue until he feels exhausted or faint. He should stop at once if the muscles develop a tremor.

In conclusion, I wish to say that the index of vital force is lung development (and with it goes the development of the heart, liver, kidneys, spleen, etc.). I am opposed to muscle bulk, muscle building, violent exercise, etc., as their ultimate results are bad.—*Henry W. Frauenthal, in American Medicine.*

Etching by J. Hallu

NIGHTFALL

THE MEDICAL FORVM

Alcoholic Temperance Drinks

THE *Lancet* believes that the temperance cause would be advanced if there were more palatable temperance drinks to substitute for the strong alcoholic drinks; and by that it means that the temperance people should adopt drinks containing a small proportion of alcohol. Says the *Lancet:* —

"It is curious that several of the temperance beverages which enjoy favor with the teetotalers contain an appreciable amount of alcohol."

Stone ginger beer is mentioned as actually containing more alcohol than light beer, and very nearly as much as is contained in cider.

"Some teetotalers, in their innocence, while aghast at the idea of drinking light hock, or claret, do not object to ginger wine, which, relatively speaking, is highly alcoholic."

Yes, and some have been known to use bitters and such alcoholic abominations as Peruna and "Lydia Pinkham."

A professor of viliculture in a California university has done some missionary work for the wine and liquor interests by writing a tract which is being circulated freely by the wine association. This tract is an attempt to prove that the use of wine is beneficial. But this is only the repetition of an old story, which will not down; for the money of the wine interests is behind it.

Quite the opposite to these positions is that of E. L. Transeau, the contributing editor of the *School Physiology Journal.* Referring to the claim made by American wine-growers, that by teaching people to drink wine they will drive out intemperance, Mr. Transeau gives figures showing the actual number of liters of alcohol consumed per capita in various countries, obtained by adding the amount of alcohol contained in the various beverages consumed. The table begins with, Belgium, 12.58 liters; France, 12.57; and goes on down to, United States, 7.95, and finally, Finland, 1.84 liters. Mr. Transeau comments: —

"France, it will be seen, stands with Belgium, the largest per capita beer-consuming country, at the head of the list."

"An alarming increase in spiritous drinks in France, noted by her own scientists and public officials, effectually disproves the repeated assertions of the American wine interests that 'in the wine-growing countries of Europe, where men and women drink wine like water, alcoholism and the use of spiritous liquors are little known.' Both are altogether too well known."

He then quotes from the United States Consular Report of September, 1906: —

"The French people, who were formerly large consumers of light wines, are turning to stronger beverages, including absinth, and the number of suicides caused by alcoholism is increasing in corresponding ratio. France is one of the countries where the most alcohol is consumed, and it is the only country, with the exception of Belgium, where the consumption continues to increase."

He quotes the Paris correspondent to the *British Medical Journal,* showing that in eleven hospitals alcohol was one cause of death in over one third of the cases, and states that the cause of death from alcohol in insane asylums reached nearly fifty per cent of the men: —

"If there were any truth in the statement that the free and universal use of wine would keep out the stronger liquors and prevent alcoholism, there has been ample opportunity in France to prove it. Instead, the exact opposite has occurred. The French government has encouraged the use of wine. It has removed the tax, and has done all it can to promote wine-drinking, and now stands perplexed and baffled because alcoholism and the consumption of stronger and stronger liquors strides on. Verily not by Beelzebub is Beelzebub cast out."

Cause and Prevalence of Cancer

THERE are two classes of writers on cancer: those who are positive they know all about it,—and those who are positive that very little is known about it. There are some who know that cancer is rapidly increasing, and others who say that it is impossible to state whether it is increasing or not.

A writer in the *Nineteenth Century* probably expresses a truth when he says: —

"There are more opinions about the cause of cancer than there were in the Middle Ages about the cause of fossils."

The Nation for Aug. 6, 1908, in an editorial article discussing the present status of cancer research, says: —

"No one knows exactly the cause of cancer, and there is no sure cure."

Prof. Jas. Ewing, of Cornell, who is making a careful study of cancer, discards the parasite theory as untenable.

In the *Harvard Graduate's Magazine* for March, 1905, Edward R. Nichols made the statement that —

"the work of the Harvard cancer commission has been to show that the idea that cancer is due to a parasitic yeast is erroneous; it has also shown fairly conclusively that the peculiar 'cancer bodies' are not protozoan, and are not parasites."

In 1905 the *Saturday Review* (London), discussing the second report of the Imperial Cancer Research Fund, says: —

"It is now possible, with almost complete certainty, to exclude from future inquiry the idea of a specific infection." "The history of cancer is incongruous with the course of events in a disease arising from an external parasite that has gained entrance to the body." "Cancer is not an intruder from without, not an originally free living animal or plant that has acquired the deadly parasitic habit, but is a piece of the actual tissue of an animal that has acquired a new mode of growth. The most important practical side of the conclusion is the recognition of the non-infectious nature of the disease. We have not to fear that somewhere among us, in dirty water, or in some plants or animals, there are permanent foci of infection."

Regarding the question of the hereditary transmission of cancer, Dr. Bashford read a paper, in November, before the Royal Society of Medicine, giving the results of his careful investigations, and concluding with the statement: —

"With nothing but negative evidence of the part played by inherited constitutional conditions before us, and with positive evidence of the important part acquired constitutional conditions can play in furthering the growth, perhaps the development, of cancer, we shall more profitably spend our time if we frankly seek to ascertain how cancers are acquired, than if we continue to preach the doctrine that they are inherited, and that it is hopeless to contend against them."

According to the *Saturday Review,* the statistical inquiries of Dr. Bashford clearly show that —

"cancer occurs throughout the world, almost independent of race or climate or special habit. There seemed to be at first an indication of greater frequency of cancer of internal organs among the civilized population of towns than in remote districts or among the lower races, but it now appears to be the case that the difference in figures is due merely to a difference in facilities for collecting information."

In harmony with this is the recent report of Dudley on the prevalence of cancer in the Philippines (*Journal of the American Medical Association,* May 23, 1908), where, as the result of careful investigation, he became convinced that cancer is as prevalent as in this country, if not more prevalent.

Vegetarianism in India

THE London *Lancet,* in its issue of Nov. 21, 1908, refers to some nutrition studies among the Bengalis, whose diet consists principally of rice, and takes the occasion to pay its respects to vegetarianism. We are told, for instance, that it is well established that —

"The individual who subsists upon an exclusively vegetable diet is far more susceptible to the attacks of disease than is the consumer of animal food."

Which is far different from saying that the abstainer from flesh-meat is far more susceptible to the attacks of disease than the meat-eater.

"Every day, as knowledge advances, and powers to add to that knowledge are increased, is the view strengthened that vegetarianism is a fallacy."

After the experimental work in connection with the Bengalis is referred to, we are informed that the Bengali, notwithstanding he obtains proteid nearly equivalent to that stated by Chittenden as sufficient, finds his powers of resistance to disease impoverished; moreover, there is no less kidney disorder, and on the other hand a marked tendency to diabetes, indicating that the body has harder work in attempting to dispose of a surplus of carbohydrates than a surplus of protein.

According to the *Lancet,* diabetes, tuberculosis, spreading gangrene, etc., are very prevalent among the Bengalis, who subsist on a beggarly protein diet.

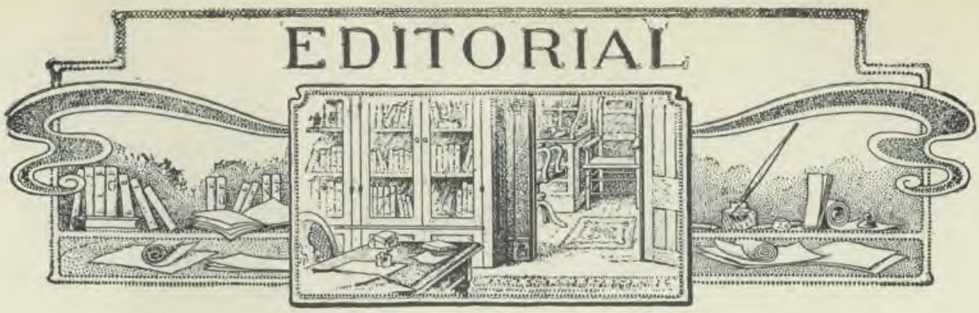
"It follows that vegetable food, unless consumed in large quantities, does not yield a sufficiency of protein, and therefore, in order to obtain this sufficiency, a quantity of carbohydrates has to be consumed simultaneously, which places a strain upon the resources of the body ultimately leading to a reduced vitality, which is favorable to microbian invasion and its results.

Dr. Alexander Haig, replying to this article, agrees that "vegetarianism is a fallacy." He says: —

"In upward of a quarter of a century of dietetic experience, I have seen many whose well-intended but ignorant endeavors after the impossible have ended in their own destruction."

He does not believe the amount of proteid recommended by Chittenden will be found sufficient, if watched over a long period. He attributes the trouble of the Bengalis to poverty. They would take more protein if they could get it. In western Europe the people get a surplus of protein. He believes that where nuts are added to the diet, a person of normal digestive powers can live on a vegetarian diet, but that those accustomed for years to meats will be unable to digest nuts. For these he recommends milk or cheese.

He makes the statement that it is the purin-free dietists [those who avoid meats, beans, etc.] who have made the remarkable endurance records, thus establishing the superiority of the low-purin diet.



Unsigned articles are by the editor

What May We Do to Prevent Mental Deterioration in Children?

DR. ADOLPH MAYER, director of the Pathological Institute of the New York State Hospitals, and professor of psychopathology, Cornell University Medical School, has made a careful study of the histories of young dements, with a view to determining the causes which lead up to those forms of insanity known under the general name dementia præcox, which constitute about thirty per cent of all cases of insane; and he finds that, in these cases (as in tuberculosis), there may be hereditary *tendencies* to mental deterioration, but none that can not usually be overcome by right management. There is an "incipient stage," if we may so call it, when, if the tendency is recognized, and the child placed under proper environment, the difficulty may be eradicated.

A study of the histories of a number of dements shows that as children they were "retiring," "bashful," "seclusive," or "nervous," and easily startled. They were "peculiar" rather than "defective," and were characterized more by "repression," and "what is known as 'depth of thought,'" than by "aggressive mischief," such as leads to truancy and social delinquency. It is worthy of note, and should be a matter of great concern to some parents, that "the children affected are the very ones whom a former generation might have looked upon as model children."

Dr. Mayer shows that while these traits may be common to many children, a healthy activity overcomes them; but in some, the tendency to brood rather than to act, to dream rather than to be doing something, grows by exercise. "There develops an insidious tendency to substitute, for an efficient way of meeting the difficulties, a superficial moralizing and self-deception," "at the expense of really fruitful activity, which tends to appear insignificant to the patient in comparison with what he regards as far loftier achievements." Thus, more and more, the child becomes a dreamer, rather than a doer, disdaining the commonplace but practical activities of life, for the more congenial, but highly impractical atmosphere of her reveries.

"Most failures in life are persons who withdraw from straightforward and wholesome activity into seclusion, into flights of imagination, or so-called 'deep thought' [day-dreams, often, of the most pernicious sort]; all of which tend to make ordinary concrete activity appear as shabby and inferior." "To find pleasure in mere activity, however humble, is a safer ideal, and constitutes to my

mind the basis of what is called Anglo-Saxon superiority." Properly directed activity is one sovereign remedy for the tendency to mental deterioration.

Another cause for mental breakdown in susceptible children is injudicious grading, and the assignment of too difficult tasks, leading to discouragement and poor work. Where the tasks are such that the child is unable to do them properly, she contents herself with imperfect work, and consoles herself with day-dreams of future greatness and perfection far in advance of the common herd around her, who lower themselves to the commonplace duties of practical life.

The remedy is obvious. "The study of imbecility teaches us that if the defective only finds his level, there is no danger of further complication." But where the tasks are not fitted to the capacity of the pupil, serious mental derangement may result in the susceptible. Hence "it is our duty to those of less fortunate assets to provide a more timely and more rational reduction of the demands made upon them." "We must find the proper level for the child, and for a time, at least, withdraw it from unhappy and untimely comparison, from the strain of disappointment, from inactivity and poorly balanced flights of imagination."

If a child asks for relief from tasks, or complains of headache, or of distaste for study or school work, it should have the careful attention of a competent physician, and should have any physical defects in eyes, nose, throat, or elsewhere remedied, and should be given work in keeping with its capacity.

A perusal of Dr. Mayer's paper strengthens the writer's conviction that harm is done to many children by keeping them in seclusion, through fear that they will be contaminated by the manners or the language of rougher (and perhaps healthier and more normal) children.

Some denominational schools, opened for the purpose of taking children away from the contaminating influences of the public schools, have proved to be greater hot-beds of corruption and vice than the average public school; and it is the writer's opinion that this state of affairs is due partly to the fact that these children, or a considerable proportion of them, have been kept in their younger years from free association with other children, and have, through the unnatural restraint, become morbid.

It is right that children should not be allowed to have free intercourse in such a way as to permit the spread of a knowledge of vice; but I am not sure that children, even in unrestricted intercourse, suffer so much damage as some of those who are secluded, hermitlike, from contact with those of their own kind, and who subsist on the mental food of their own broodings.

But better than unrestricted play is directed play, as developed in the scheme of the Playground Association, where the director is a faithful and conscientious student of the child mind, who attempts to lead all the activities away from the morbid and introspective and unsocial and selfish, into the formation of healthy, efficient, unselfish social units.

Where there are no public playgrounds and play directors, the school-teachers, whether public or private, should feel that their responsibility for the children is not fulfilled until they are prepared to take intelligent direction of their play, and so plan these activities that they will make for the physical, mental, social, and moral growth of the children.

Parents should realize that if they have a child "too good to associate with the children of neighbors," they are opening the way for a growth in morbidness that may work more disastrously for the child than anything it might learn from other children. Far better bring the other children into the home, and yourself supervise the play. Don't be too particular about the appearance of your home, and thus make it a place of restraint for the children; but make a place for them where they will love to come; enter heartily into their games, and as far as possible, have these in the air and sunshine of the yard.

Parents can not make a better investment than in the purchase of apparatus and the fitting up of a place which will afford the children an opportunity for pleasurable muscular activity in the open air. Such a place is not complete without a certain amount of garden space.

What Causes Cancer?

THIS is a question that has for a number of years engaged the attention of physicians and laboratory men of unquestioned ability and integrity. The fact that there are many diverse causes assigned for the disease shows that as yet we do not know very much about it. Our knowledge of cancer is somewhat like the knowledge regarding the nature and causation of malaria before the discovery of the malaria parasite and the agency of the mosquito.

Among the theories to account for cancer the following may be mentioned: (1) That cancer is due to the presence of a specific parasite; (2) that the cause of cancer must be sought in the nature of the cell itself, the cancer cells being body cells having undergone such modification that they have become wild, aggressive, not subject to the limitations of other cells of the body, and having practically an immortal life and the power of limitless multiplication.

The parasitic theory has considerable evidence in its favor. It will suffice here to refer to instances cited by Tines in a paper recently read before the Medical Society of Virginia. There was an epidemic in which cancer grew in the inner angle of the eye of cattle on a Wyoming ranch, which had no perceptible physical difference from surrounding ranches, where the cattle were practically free from cancer. Cancer of the thyroid was epidemic in certain trout hatcheries in Germany. Wild trout, and other species of fish, took the disease when put into these tanks. Other tanks remained free from the dis-

ease. Sixty cases of tumor developed spontaneously in the animals successively put into one cage during a period of three years, although the cage was frequently cleansed, and the stock was frequently renewed. According to Dr. Lyon, of Buffalo, cancer is more prevalent among the foreign than among the native population in western New York, especially among the Germans, and cancer of the stomach is ten times as prevalent among the Germans as among natives. The Germans, he says, eat very much uncooked food. [Vegetables or sausage?] According to Behla, a cancer epidemic occurred in a Prussian town having a ditch of stagnant water. Cancer was present in fifty-six of the one hundred twenty-seven houses which had gardens adjoining the ditch. The people were in the habit of irrigating their gardens, and washing their vegetables, many of which were eaten raw, in water from the ditch. Another suburb of the same town, not bordering on the ditch, was entirely free from cancer. There is no reason to suppose that in this city one suburb was composed of vegetarians and the other of meat-eaters.

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BED OF SNOWBALL

Against the view that the disease is parasitic is the fact that the closest scrutiny has as yet failed to demonstrate a specific parasite; but this is not conclusive, as, one by one, the diseases suspected to be parasitic have yielded up their secret to the determined microscopists and bacteriologists; and some new process of staining or of growth may yet demonstrate the presence of a parasitic cause of cancer.

Favoring the view that the cause of the disease is in the cell itself, rather than that it is parasitic, are the following facts: It is nearly always the result of chronic irritation, and not of a fresh wound; it is not communicable by transplantation from one species to another. It may be transplanted, for instance, from one mouse to another, but not from a mouse to a guinea-pig. This would seem to militate against the idea that one may be *infected* with cancer by eating the flesh of a cancerous animal.

As to the interesting statistics furnished by Mr. Russell and quoted in the article by Dr. Kress, the writer must confess that they are not altogether convincing. There is a hazy indefiniteness about the expressions "high," "rather low," "moderate," etc., that is far from satisfactory, especially when these expressions are confronted by the actual mortality figures.

As to the irritations which have been held responsible for cancer, there

are chronic X-ray burns; scars; ulcers; tumors; irritation of pipe or cigar; irritation of clothing; picking of warts or moles; holding nails in the mouth (lathers); broken teeth or plates wounding the tongue. "The history of chronic irritation is almost universal."

As to the increase in cancer mortality, Dr. Crile, in his oration on surgery at the recent Chicago session of the American Medical Association, believed it to be more apparent than real. He attributes the appearance of increase to two causes: —

1. Improved diagnostic methods permit the recognition of cancer where formerly it was overlooked.

2. The diminution, by hygienic methods, of the mortality from the preventable diseases causes the proportion of cancer deaths to be relatively higher.

He mentions one cause of actual increase in cancer: the gradual lengthening of life by improved hygiene, preserves a larger proportion of people to old age, — the age of especial susceptibility to cancer. In other words, a larger proportion of people formerly died before cancer had a chance at them.

If improved hygiene, in sparing us to a greater age, only spares us in order to feed us to the cancer beast, it would almost seem better that we die early; but we have hopes that the earnest men who are vigorously attacking the cancer problem will yet give us the knowledge that, acted upon, will make cancer a fallen foe.

Meantime, a hint to the wise should be sufficient; and to give ourselves the benefit of the doubt, we should avoid those articles of diet which have given evidence that they may be important factors in the production of cancer.

Nature Study Versus Worry

THE human mind does not work to its full capacity in all directions at once. It always economizes gray matter — if we may use the expression — by specializing. That which is not of immediate interest is apt to be disregarded by the mind.

There are thousands of noises which strike the ear-drum that make no perceptible effect on the consciousness. For instance, we may be in a room for hours and not notice the tick of the clock. If it stops, we notice it immediately.

There are thousands of impressions made upon the retina which leave no visible mark upon the consciousness. As I sit writing, there are in view a large number of objects which make as vivid an impression on the retina as the pencil I am using, yet they do not come into consciousness because the attention is not fixed on them.

The ability to feel is not fully developed in any one who sees. The sightless, being under the necessity of depending more upon touch sensations, develop a keenness of touch entirely foreign to those who see. No matter how much one who sees may attempt to develop the sense of touch, it is still inferior to this sense in the blind.

This great principle of the mind is one that can be utilized to banish worry.

Good thoughts may be made to crowd out worry, right mental activities to supplant those that are wrong.

One who is busily engaged, giving attention to the messages that go to the brain through the eye and ear, has comparatively little time to worry. To worry is to have eyes and see not, to have ears and hear not, because the mind is centered inside, on woes, supposed or real. No man, while he has a real interest in nature, can have much time for worry.

For this reason, nature study is a sovereign cure for the blues. Let one form the habit, when walking, of seeing things, of catching the myriads of messages nature is sending inward — or as many of them as possible — and my word for it, he will have no time for worry, and once the habit of observation is fully fixed worry will be effectually banished.

This is why such an organization as the A. A. (the Agassiz Association) is a capital Don't Worry society. It has no "Don't Worry" by-laws, no "Don't Worry" mottoes. It says nothing about worry. It gets its members busy in the very natural and very agreeable and all-absorbing work of taking a peep at nature in some of her phases, and watching the wheels go round.

How much do you think a child worries while, with big eyes, he sits watching the wheels go round in a clock? You know he has no thought for anything else. Fill the mind with the beauties of nature, keep it full, and worry will be banished.

Worry is simply a habit. But you can not cure it by resolves. You can not cure it by calling attention to it. You will worry the more, in all probability. Sometimes we kill out weeds by planting a very strong, thrifty grass. Kill out worry by planting the habit of observation, and carefully nurture it until it has obtained a good start.

Bovine and Human Tubercle Bacilli

IN the Boston *Medical and Surgical Journal* of November 26, Theobald Smith, who first made the distinction between the bovine and the human tubercle bacillus, reviews the evidence for and against the identity of the two types of bacillus, and records his conviction as to the present status of the question in the following emphatic language: —

"The time has not yet come for us to state positively that one type can or can not be transformed into the other. The very methods employed leave a big gate for errors to sneak in, and the proof, if it ultimately comes, will be more in the nature of a majority vote than a demonstration. In the meantime we may safely take the ground that any regular or wholesale conversion of bovine into human bacilli in the human body is out of the question, as contradicted by most of the experimental evidence thus far presented, and by certain observations made on the occurrence of the spontaneous disease."

This being true would not disprove human infection from bovine sources; for the bovine bacillus has been positively discovered in a number of cases of human tuberculosis; but it would indicate that such infection is comparatively rare.

Is Cancer Caused by the Tubercle Bacillus? — Dr. T. G. McConkey has presented a paper containing a number of arguments supposed to prove that the tubercle bacillus is the cause of cancer.

An Open-Air School for Tuberculous Children.— A school for tuberculous children has been opened in a ferry-boat moored in the East River, near Bellevue Hospital, New York City.

Consumptive Travelers Must Carry Spit-Cups.— The Lehigh Valley Railroad Company, in harmony with the request of the Pennsylvania Society for the Prevention of Tuberculosis, requires all consumptives who travel on its trains to carry sputum-cups and private drinking-cups.

Destruction of Spoiled Food Products.— A recent decision of the United States Supreme Court, giving the health authorities of Chicago the power to destroy spoiled food material wherever found, makes the work of the food inspectors easier, and has a strong deterrant effect on dealers who are inclined to palm off decomposing goods.

Anti-Tuberculosis Education in Massachusetts.— In response to legislation providing that instruction regarding tuberculosis and its prevention be taught in all the grades of the Massachusetts schools, the State Board of Education has issued a pamphlet entitled "Suggestions to Teachers Regarding Tuberculosis and Its Prevention."

Hydrophobia in the Philippines.— Dr. F. W. Dudley gave an account of thirteen deaths by hydrophobia coming under his personal observation, and one hundred forty-five deaths taken from board of health reports or reported to him by physicians, all occurring within a period of four years in the Philippine Islands. The disease is as frequent in the winter as in the summer months. In some cases the disease required several months to develop after the infliction of the wound.

The Crusade Against Stimulants in Germany.— The temperance crusade is being pushed with vigor in Germany. Realizing that a substitute is usually demanded for the harmful indulgences, there have been introduced drinks without alcohol, cigars without nicotin, and coffee without caffein.

Playground Progress.— During the summer of 1907, ninety cities in the United States maintained public playgrounds. One year later there were one hundred seventy-seven cities with provision for the recreation of the children — nearly twice as many as in 1907. In one hundred twelve of these cities the grounds were maintained by municipal funds. Nearly a million dollars a month is spent for playgrounds in this country.

Physical Defects Cause Dulness.— In Los Angeles, Cal., fifty pupils were selected on account of their unusual brightness, and fifty on account of marked dulness. Of the bright ones eight had some eye, ear, or nose defect. Of the dull ones forty-three had some marked defect of these organs. "As these little ones were lined up, the practised eye of the physician saw that this one or that had some physical defect, and in most cases a diagnosis could be reached without a detailed physical examination." The examination revealed additional defects.

Outdoor Play Sessions.— In a Boston school located in a very congested district among unhygienic surroundings, and attended largely by children from the slums, the experiment has been tried of spending the last school hour of each Wednesday on the Hawthorne Club Playground. It was soon noted that there were few or no absences on Wednesdays. The children were eager for the weekly outing. "It seems impossible that a play hour once a week can really mean a physical gain for the children, but their dull little faces have grown bright and animated."

New Home for Agassiz Association.— Through the munificence of a friend of the movement, the A. A. is to have suitable buildings, museums, laboratories, offices, etc., where original research can be carried on, and where, perhaps, during the summer months at least, there may be a gathering of nature students, for whom there will be provided working space, material, and apparatus.

Finds Few Hungry Children.— The special committee of the New York Board of Education on school feeding, after an investigation lasting two weeks, in which testimony was taken from superintendents, principals, and members of local school boards, found only one hundred thirty-one children out of one hundred twenty-three thousand, who were actually in need of food. It is not quantity, but quality.

Fatal Headache Powders. — A theater manager of Bucyrus, Ohio, was found dead in the opera-house one morning. He had complained of a headache, and had taken headache powders, which probably depressed his heart, with fatal effect. It should be remembered that most headache powders contain acetanilid, a dangerous heart depressant. Such deaths from headache powders are, sad to say, by no means infrequent.

Alcohol Abandoned in Pneumonia.— Dr. G. W. Norris, physician Philadelphia General Hospital, states that the use of alcohol in pneumonia is steadily growing in disfavor among the medical profession, for the reason that it does more to relax the vasomotor system than it does to stimulate the heart; and it has been shown that death in pneumonia is due to failure of the vasomotor system. Dr. Norris observed a striking benefit from the use of fresh air, even during very cold weather, in the treatment of pneumonia.

A Woman Physician Chosen Mayor.— Mrs. Garret Anderson, M. D., the pioneer woman physician of England, who received the Paris degree of medicine in 1870, after having been refused a degree in England, was recently elected mayor of Aldeburgh, England. Mrs. Anderson has from the first had to fight most bitter prejudice; but she has, despite all obstacles, won her way to distinction. For more than twenty years she served as dean of the London School of Medicine for Women, and in 1896 was further honored by being elected president of the East Anglican branch of the British Medical Association.

Tuberculosis Instruction for Children.— The Masachusetts Board of Education has issued a pamphlet of "Suggestions to Teachers Regarding Tuberculosis and Its Prevention," and the Committee for Prevention of Consumption of the Associated Charities, Washington, D. C., has prepared a series of "Simple Lessons on Tuberculosis, or Consumption," for children of the seventh and eighth grades. These pamphlets teach the value of fresh air day and night, sunlight, cleanliness, bathing, plenty of plain, nourishing food, and care of the teeth and bowels."

Classification of Infectious Diseases.— Dr. Wm. H. Thompson classifies infectious diseases as (1) those in which the disease is transmitted directly by contact or proximity,— the contagious diseases,— as smallpox, scarlet fever, measles, diphtheria, influenza, whooping-cough; (2) those which are communicated indirectly through the agency of some carrier, as cholera (water), typhoid fever (water, milk, flies), tuberculosis (dust, milk, flies); (3) those which are communicated by inoculation through some wound, as malaria and yellow fever (mosquitoes), sleeping-sickness (tsetse-fly), and bubonic plague (flea). It is in the control of this third class that the medical profession has made its most brilliant achievements.

Health Clause in President's Message.— "It is highly advisable that there should be intelligent action on the part of the nation on the question of preserving the health of the country. Through the practical extermination in San Francisco of disease-bearing rodents, our country has thus far escaped the bubonic plague. This is but one of the many achievements of American health officers; and it shows what can be accomplished with a better organization than at present exists. The dangers to public health from food adulteration, and from many other sources, such as the menace to the physical, mental, and moral development of children from child labor, should be met and overcome. There are numerous diseases now known to be preventable, which are, nevertheless, not prevented. The recent International Congress on Tubrculosis has made us painfully aware of the inadequacy of American public legislation. The nation can not afford to lag behind in the world-wide battle now being waged by all civilized people with the microscopic foes of mankind, nor ought we longer to ignore the reproach that this government takes more pains to protect the lives of hogs and of cattle than of human beings."

The Typhoid Fly.— Dr. Howard, of the Division of Entomology, United States Department of Agriculture, recommends that for the common word "house-fly" we substitute "typhoid fly" as more descriptive of its dangerous character. "Manure fly" is a name that is also fairly applicable, according to the doctor, but not so appropriate as "typhoid fly." The name "house-fly" wrongly suggests that the fly belongs in the house, and ignores the fact that its birthplace and natural habitat is the manure pile or some worse place. Dr. Howard rightly considers it a blot on our civilization to permit the fly to exist. The typhoid fly must go.

Vaccination Against Typhoid.— The army medical board, which met in Washington in December, has voted to introduce into the army vaccination against typhoid fever. This, though a novel procedure in the American army, has been in use for some ten years in the British army, where it was first made optional. It was soon observed that the proportion of typhoid cases among the vaccinated was just half what it was among the unvaccinated; and the comparative death-rate for the unvaccinated was still lower. The German army also, in its African campaign, where typhoid fever was their most formidable enemy, used anti-typhoid vaccine. The vaccine is prepared by killing virulent cultures of typhoid germs by means of heat, and injecting several hundred millions of the dead bacilli by means of a hypodermic syringe. Two injections are usually given at an interval of several days.

What Is a Sausage? — This question is said to have broken up a pure food convention in Paris. Some wanted the term restricted to hog-meat. Others vehemently held that donkeys, mules, and horses make excellent sausages. One said that pork alone can not make good sausage unless reinforced with beef and veal. Finally a little man arose and said, "Gentlemen, you have forgotten the dog." There were murmurs from all sides. He continued: "Gentlemen, I assure you our dog sausages are excellent, and it seems to me unjust that in an international congress charged with defining pure food, a sausage containing dog should not be considered pure." It was finally decided to apply the word "sausage," without a qualifying word, to a mixture of pork, beef, and veal. Other sausages must have a qualifying adjective, as "mule sausage," "horse sausage," "dog sausage," "cat sausage," etc

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GEO. H. HEALD, M. D. – – – Editor

G. A. HARE, M. S., M. D. }
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The March Number

WHAT is cancer? What is its cause? Can it be prevented? Can it be cured? This subject will receive further consideration in the next number. In addition to the completion of the paper by Dr. D. H. Kress, there will be given the views of others who are making a study of this formidable disease.

Dr. Leadsworth will give an interesting account of a case of self-poisoning, which will enforce its own lesson.

Under the title, "Therapeutic Hints," Dr. Heald will give simple remedies for common diseases and emergencies.

Dr. Godsmark, in response to request, has furnished an instructive article on "Solid Shortenings."

Among other topics which will receive consideration are: —

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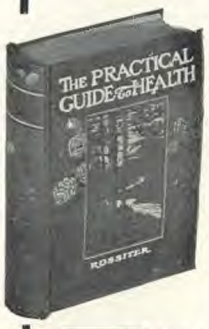

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