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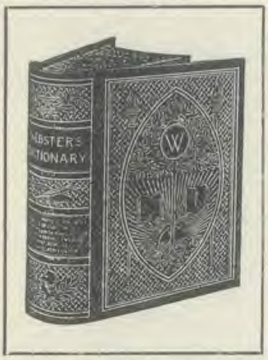

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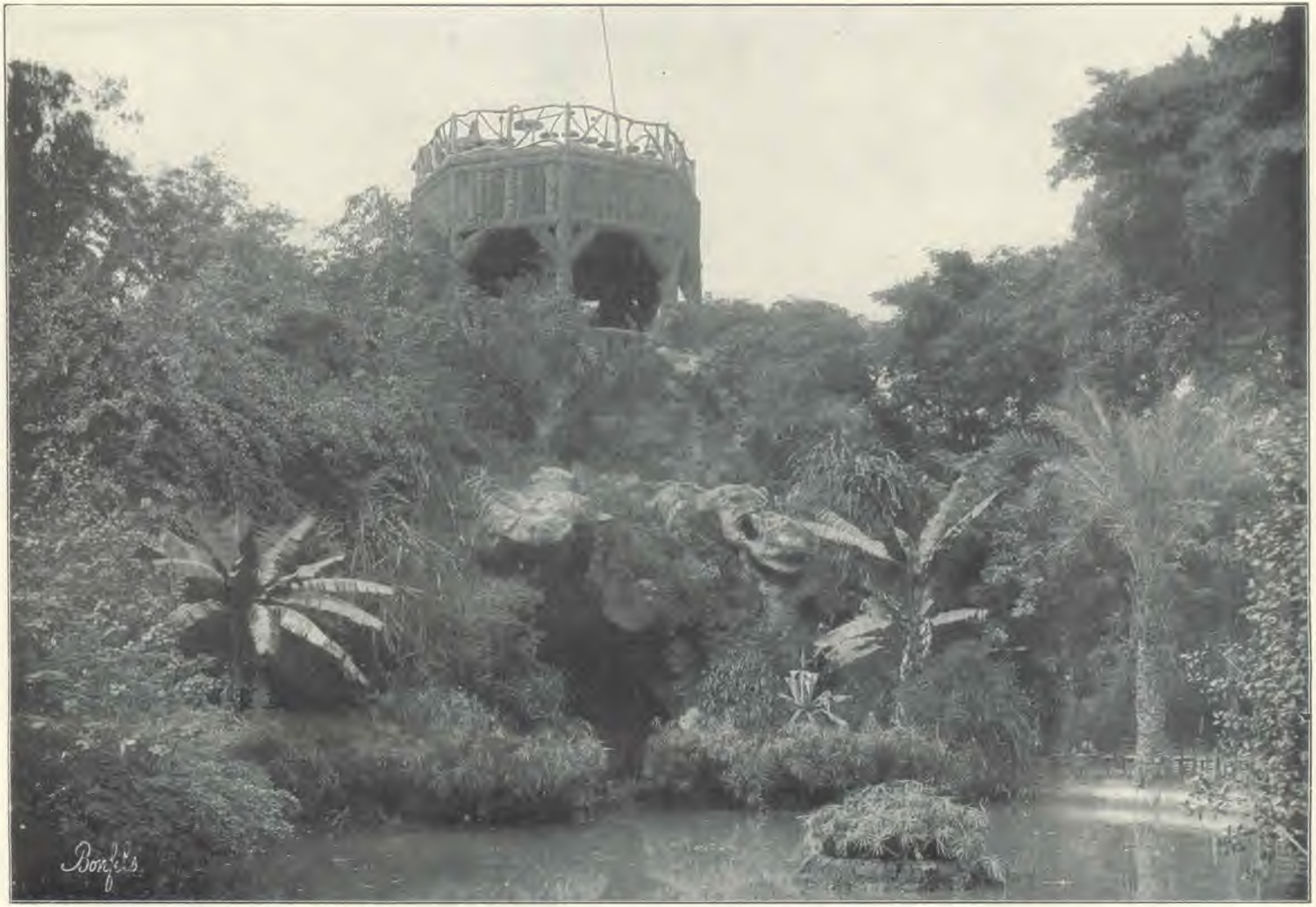

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GOOD HEALTH

A Journal of Hygiene

VOL. XL SEPTEMBER, 1905 NO. 9

HOME AND SCHOOL EDUCATION OF CHILDREN

BY J. H. KELLOGG, M. D.

EDUCATION should begin with the earliest dawn of reason. The first evidences of mental activity on the part of the child should be watched for and met in such a manner as to insure a healthy development. It is possible, by giving careful attention to all the surroundings of the infant, and bestowing care upon every act in relation to it, on the part of the mother, to give direction to the development of its dawning mind, and thus to do much toward forming the character.

Whatever is brought before the attention of the little one makes an image upon its soft and forming brain which is pretty sure to be reproduced, more or less modified, sometime in its future history. The building of a brain, the formation of a character, is a work with which that of the most skilful sculptor can not for a moment compare; yet how little attention is given to this important work. Children are allowed to come up without any attempt to give proper or natural direction to their development.

It is a matter of great importance to children that they should be early taught to think by bringing to their attention objects calculated to stimulate thought, and by stimulating inquiry by carefully and patiently answering all their questions, and putting to them such questions as will call out thought and encourage further inquiry. This work, properly done in the first four or five years of life, will accomplish more toward the molding of character and the developing of valuable mental qualities than can be accomplished by the most skilful training at any subsequent period.

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While there has been great improvement in the methods of school education during the past quarter of a century, it is still an unfortunate fact that the school life of the young is to a large degree perverting in its character. Instruction is imparted in such a way that children are led to acquire knowledge without much appreciation of what they learn. Little attention is given to the natural order in which the mental faculties should be developed, or the natural means by which young children acquire knowledge. A routine method is followed, the effect of which is to extinguish, to a large extent, the naturalness of those who are subjected to it. Reforms are in progress, however, and school instruction is being brought more into conformity with the healthy development of the mind.

The cultivation of the moral faculties of the child can not be begun too early. Depraving influences are so abundant, and so certain to be brought in contact with the little one at a very early period of its development, that the attempt to fortify the mind against such influences can not be begun at too early a date. It is of the greatest importance that while the minds of children are still impressible, such images of truth and purity should be formed upon them as can not be easily effaced. Children ought early to be taught to love the right *because it is right.*

The instinct of fear should seldom be appealed to, and never when such an appeal can be avoided. The dignity of truth, the nobility of purity, and reverence for nature and the God of nature, should be held up before the young mind as the highest possible incentives for right doing. A moral character founded upon such a basis can not be disturbed by "winds of doctrine" or waves of unbelief; it is founded upon a rock which can not be moved.

The natural simplicity and sincerity of childhood is a precious trait which should be fostered and preserved. Hypocrisy and sham, notwithstanding their prevalence in the fashionable society of the day, are always distasteful to a person of pure mind and unperverted instincts, but never more so than when exhibited in children. Genuineness of character is most essential, and should be carefully cultivated by early inculcating an abhorrence of shams and pretense.

Physical education and the proper development of the body are of the utmost importance. The muscles and bones can not be developed in any other way than by physical exercise, and this can not well be done with the proper freedom elsewhere than in the open air. The playroom or family gymnasium is an excellent thing for use on rainy days and in inclement weather; but there is no means by which a good foundation for physical health and normal development can be so well laid as by abundant exercise in the open air.

The disposition which most healthy little girls exhibit to romp and play with their little brothers should not be repressed unless carried to great excess. The physical endurance requisite to meet the emergencies of mature womanhood can be secured only by proper development of the physical organism in childhood or early youth.

Children of both sexes should be early taught to be useful. In many kinds of work they find the most healthful of all exercise. The various movements required in the process of putting a room in order, clearing the table, washing or wiping dishes, running errands, replenishing the fire, and in other household duties, afford almost as good an opportunity for the exercise and development of the muscles as the most complicated maneuvers of systematic exercise in a gymnasium. Children should be early taught the dignity of work, and made to understand that their lives, if successful, must be lives of usefulness.

And still we love the evil cause,
And of the just effect complain;
We tread upon life's broken laws,
And murmur at our self-inflicted pain.

—*Whittier.*

OUTDOOR LIFE AT AN ENGLISH SANITARIUM

BY E. E. ADAMS

IN the midst of a cluster of ambrosial hills, in the heart of the beautiful Caterham Valley, nestles the "Surrey Hills Hydro." This so-called "Hydro" is in reality an up-to-date sanitarium, one of the only two in England carried on strictly in accordance with the principles for which the Battle Creek institution stands.

The sanitarium idea is still somewhat new in England. "Convalescent Homes" for those recovering from sickness and needing change of air are very plentiful. But to go away from home for treatment when ill, except in the case of tuberculosis or infectious disease requiring isolation, is a rather unpalatable innovation to most invalids. However, the homelike nature of the Surrey Hills Hydro soon relieves their apprehensions, and sets their minds at rest.

The building is simply but beautifully furnished in the style of a gentleman's residence, and there is nothing of an institutional character, either inside or out. The geniality of Dr. A. B. Olsen, the medical director, pervades the place with the atmosphere of home. His individual interest in his patients, and the thoroughness of his methods, inspires their confidence. The kindliness with which his staff co-operates with him in caring for the invalids, wins the hearts of those to whom they minister.

Every morning the head nurse visits each of the patients in his room, with a smile, a kind inquiry, a cheering word,

THE ENTRANCE TO THE SURREY HILLS HYDRO

A Corner in the Drawing-Room

Dressing-Rooms

which helps to determine the keynote for the day. The cheerful morning worship, the unobtrusive Christian influences of the place, help unbalanced nervous systems and overwrought bodies to regain their natural poise.

The pretty little dressing-rooms, with couches where the patient can rest at intervals, make the taking of the prescribed treatments a luxury. These treatments are not all hydropathic; they include electric-light and other electrical treatments, massage, etc., and the bath-rooms are excellently fitted for their purpose. In the restful, optimistic atmosphere of the home, worn-out bodies and jaded nerves are soon restored and renovated.

The characteristic feature of the Surrey Hills Hydro, which is the out-of-door

life voluntarily adopted by most of the patients, is not altogether due to its beautiful surroundings. American visitors to England are usually struck with the English love of "a walk" and of all outdoor forms of recreation.

The holder of one of the Rhodes scholarships at Oxford, in the July number of *World's Events,* remarks with apparent surprise that ninety per cent of the students of Oxford are interested in athletics, and that at least sixty per cent are to be found "actually engaged in outdoor sports every afternoon." Boating, tennis, cricket, football, hockey, and lacrosse are the favorite games, but hunting, polo, bowls, and track and field contests are also popular. The Englishman, he says, "cultivates to a much greater extent than his American cousin that hardihood and physical robustness which count so much for long life and healthy living."

Some of the energy which the young American devotes to business and money-making, the young Englishman throws off in sports and physical exercise. But as he is content with a competency, he is not thereby the loser, especially when the incalculable gain to health and spirits is taken into account.

"The young English," said Emerson, "are fine animals, full of blood, and when they have no wars to breathe their riotous valors in, they seek for travels as dangerous as war, diving into maelstroms; swimming Hellesponts; wading up the snowy Himmaleh; hunting lion, rhinoceros, elephant, in Africa; gypsying with Borrow in Spain and Algiers; riding alligators in South America with Waterton; utilizing Bedouin, Sheik, and Pasha with Layard; yachting among the

THE DINING-ROOM

A Surrey Lane

icebergs of Lancaster Sound; peeping into craters on the equator, or running on the creases of Malays in Borneo."

Such being the character of the English, there is not much need to provide entertainment within doors for those who are at all able to be out. An uninitiated visitor might think there was not much going on. He would soon find, however, that as soon as the tide of life begins to rise again, and they feel the stirring of the new blood, the patients settle the question of recreation and exercise for themselves by spending every available moment out of doors.

Corrective gymnastics are given to those requiring them, and all are expected to attend the morning drill in the gymnasium. Apart from this, each "gangs his ain gait" at whatever form of outdoor recreation best suits him. The charms of the Surrey hills make walking, hill climbing, and exploring expeditions the most popular.

No more charming landscape could present itself than that which invites the inmates of the Surrey Hills Hydro to exploration. Such sweet, sheltered vales for the still delicate invalid! Such breezy downs and wind-swept heights

A View from One of the Rear Windows

A Garden Party

for the more strenuous! The healthfulness and charms of this delightful locality make it seem almost incredible that it is within easy distance (only seventeen miles) of the heart of London. But here London mist and smoke and fog never intrude. The air, though mild, is crisp, bracing, and refreshing. To roam over these hills is a delightful relaxation for weary town-dwellers.

In the early spring, when the cuckoo's note breaks the silence of the hills, the sweet-smelling woods invite the flower-gatherers. The rooms of bedridden patients are decorated with primroses, violets, and wild hyacinths by those who are able to bring some of the out-of-door life indoors to those who are still housebound. A little later in the season, when the song of the nightingale may be heard in the still evening air, come hawthorn, honeysuckle, and wild roses.

The Surrey soil is very chalky, which insures dryness as well as other sanitary advantages. Even after protracted rains the ground soon becomes fit for walking over; though in some cases ladies who insist on taking their constitutional in all weathers are glad to slip in the back way when they return from their climbing tours.

In the summer, excursions and picnic parties are frequent. There are many places of historic interest in the neighborhood to be visited. Adjoining Caterham is the typical old English town of Godstone, with its ancient inns, one of which bears a tablet commemorating a visit from Queen Elizabeth, in the sixteenth century.

One of the most famous picnic spots is the War Coppice, whose very name is rife with historic interest and whisperings of the Roman legions. The White Hill, on which it is situated, overlooks the Roman Road, and was once covered

with entrenchments, some of which have been cut away by the quarries. The summit of the White Hill was called the Cardinal's Cap, from the appearance given to it by the entrenchments, thought to have been a camp of the Danes.

Here one is seven hundred feet above the level of the sea, which is but forty miles distant, hidden from view only by the Brighton Downs. Describing the magnificent prospect obtainable from this spot, one says, "There is a soul repose, a dreamy influence, like soft music, in such a scene — not an enervating, but a refreshing influence, refining, lifting up, and drawing the heart into closer communion with the divine harmonies intertwined with the moral and material mysteries of our being, and our kinship with the Infinite."

THINGS THAT MAKE DRUNKARDS

BY DAVID PAULSON, M. D.

Hinsdale (Ill.) Sanitarium

WE can expect to make but little more advancement in the great battle for temperance until we recognize some of the immediate causes of intemperance. Dr. Brunton, the eminent English physician, tells of a drunkard who complained because the temperance people were forever telling him about his drinking, but none of them told him how to get rid of the thirst that *compelled* him to drink. What would we think of a farmer who spent his time trimming the tops of his troublesome weeds instead of pulling them up by the roots?

There is a cause for the drunkard's thirst, just as there is a cause for the fever patient's temperature. Divine Writ declares, "The curse causeless shall not come." If our modern dinner tables could be cleared of those things that create a craving for liquor, there would be more vacant places at the bar; for the saloon, instead of being the first step in the drunkard's career, is frequently the devil's hospital, sought out by those who already have had abnormal tastes created within them by a fond mother's cooking.

Our high-pressure life is developing a class of people with weak and sensitive nerves. The mucous membrane of the stomach is as delicate as the lining of the eyelid. Many who are fed on veritable mustard plasters in the form of condiments and highly spiced food, have aroused within them a thirst that the town pump can not quench, and a certain number of these unfortunate mortals soon discover that the saloonkeeper and the patent medicine vender dispense the stuff that satisfies the craving created at the table.

Frances Willard once said that the kitchen is often the vestibule to the saloon. When a boy's delicate nerves are irritated by a dietary composed of juicy beefsteaks, doughy bread, and pasty mush, that is almost certain to ferment before it can be digested, is it any wonder that he instinctively craves the temporary felicity of the cigarette or the paralyzing influence of alcohol? The mother who prepares such food for her boy is unconsciously the best friend of not only the cigarette dealer, but also of the saloonkeeper, for she is developing business for both of them. How useless for her to implore Providence to deliver her boy from the curse of the cigarette evil and the liquor traffic while she is daily placing

before him food that must physiologically create a demand for their effects, just as the eating of a large quantity of salt would develop in him a strong and almost irresistible desire to patronize the water-bucket. The Divine declaration, "Whatsoever a man soweth, that shall he also reap," is as unerring in its operations as is the law of gravitation.

Our experience in dealing with multitudes of drunkards in our Chicago Life Boat work has thoroughly convinced us that the partaking of an extensive variety of vile and indigestible foods, saturated with substances that blister, burn, and sting as they are swallowed, that are added for the purpose of giving the palate a twist, also twists the nerves, and even the temper and character, and almost drags the poor, struggling victim of the drink habit into the saloon as he passes its door.

We have not done our duty to these sad wrecks of humanity until we have shown them how to sow for temperance instead of intemperance, for the ax should be laid at the root of the tree. Feed such a man upon a simple, nutritious, non-irritating dietary gathered from the lap of Nature and properly prepared, and half the battle is already won.

Scientific cookery should be regarded as an important part of the education of our young people. Indeed, some one has said that cookery should rank highest among the fine arts. Yet the enterprising business man who demands an accurate stenographer, a well-informed lawyer, and a discreet manager, is fully satisfied that the woman in his kitchen is a competent cook if she can flavor and put together half a dozen food ingredients so that they will satisfy his taste, even though she may have no intelligent conception as to whether they will build up or destroy the brain and other tissues.

Frequently children have the seeds of intemperance sown within them by being doped with patent medicines in their infancy. A widely advertised soothing syrup, which has undoubtedly killed more children than Herod ever slew, contains half a grain of morphin to every two ounces of the drug, and infants are particularly susceptible to the influence of narcotizing drugs.

It has been estimated that there are a million morphin and cocain victims in this country. This is not surprising when so many children are introduced to the bewitching effect of these drugs even before they are old enough to ask for them. "Train up a child in the way he should go, and when he is old he will not depart from it," is just as true when the child is trained in wrong habits as when it is trained in correct ones.

In recent years disguised intemperance in the form of the patent medicine evil has become a formidable rival to the saloon itself, and it is astonishing that clergymen, statesmen, and other eminent men who protest against the use of beer containing from two to five per cent of alcohol, will furnish glowing testimonials of well-advertised patent medicines containing in some instances more alcohol than ordinary whisky, evidently forgetting that the alcohol sold over the drug counter is just as harmful as that sold over the bar.

Dr. Osborne, of Yale, in his paper read before the last meeting of the American Medical Association, mentioned one patent medicine firm that was reported to be using five hundred barrels of whisky each week.

The idea that alcohol is a food is a thinly coated scientific sophistry which has furnished a desirable excuse for thousands of moderate drinkers. It is true that a small quantity of alcohol will

burn or oxidize in the body, but it ruins the body while it is burning, just as a quantity of gunpowder could burn in a stove, but it would blast it to pieces while it was burning.

Professor Kraeplin, of Heidelberg, Germany, one of the world's greatest authorities on experimental psychology, has recently made two thousand experiments with instruments of precision in which he has scientifically demonstrated that as small an amount as one-third of an ounce of alcohol will appreciably depress sight, hearing, feeling, and the various mental operations.

The best men in the medical profession are beginning to recognize that genuine and permanent healing can not be put up in bottles and bought and sold at so much an ounce, but that it is primarily the result of coming into harmony with Nature's laws and the intelligent use of such physiological remedies as exercise, air, proper food, hydriatic measures, electricity, and simple confidence in God.

The physician who intelligently and skilfully brings these influences to bear upon his patients uses less and less of drugs, and has the least use of all for the paralyzing influence of alcohol.

High Life.

Sanatorium life, camps in the Adirondacks and elsewhere, tent colonies, roof dwellings, and various other methods of taking the open-air treatment, have been frequently described. The latest novelty in this line is an experiment made by a correspondent of *Everybody's*. "For some time," he says, "I lived high and dry in the top of a sturdy white oak, where I did my cooking, eating, and sleeping, and occasionally entertained as many as fourteen in my tent or house at dinner, seventy feet from terra firma, with only a rope ladder connecting me and Mother Earth. My sleeping bunk was a specially constructed triangular bed, canvas covered, which towered fifteen feet above my living apartments and platform."

A Vicarious Cure.

Dr. Woodrow Wilson tells in a contemporary of a doctor of philanthropic bent, who lived in a Pennsylvania town the inhabitants of which are for the most part coal miners. The doctor was much distressed by the insanitary condition of their cottages. Presenting a new thermometer to each household, he carefully explained to the inmates the necessity for maintaining in one's living apartments a wholesome atmosphere. The thermometer would indicate the proper degree of temperature.

Making his rounds one day, he saw in a cottage his thermometer proudly displayed dangling at the end of a string, and he asked the woman of the house if she remembered his instructions.

"Indeed, sir, I do," was the reply. "I take great pains about the temperature. I hang the thing up there and I watch it careful."

"Good," exclaimed the gratified doctor. "And what do you do when the temperature rises above sixty-eight degrees?"

"Why, sir," was the answer, "I take it down and put it outside awhile, till it cools off."

"We spoil everything by hurry. We are wearing ourselves out as a nation by our hurry and intensity — too eager to get a living to be willing to stop to live." —*Osgood.*

THE HOME GYMNASIUM OUT OF DOORS

THE transformation effected in the ordinary business man by a short sojourn at the seashore bears abundant testimony to the invigorating effects of outdoor life, especially under conditions where fresh air, sunshine, and the hydrotherapy of the sea can be enjoyed together. The erstwhile spiritless, worn-out man returns to his work with new life, renewed vigor, the nerve-paralyzing toxins cleared from his brain, giving him enormously increased ability to grapple with the problems that confront him.

If so much can be accomplished in so short a time by a natural life, how much greater would be the results of habitual and systematic employment of the same measures. The difficulty is to obtain the opportunity. The solution of this problem is the Outdoor Gymnasium.

The nucleus of the outdoor gymnasium is the swimming-pool. Swimming was meant to be not merely an occasional and precarious pleasure, but an inseparable accompaniment of bathing, cleanliness being achieved incidentally. A swimming-pool, therefore, is a fundamental need for those who have not access to a convenient stream or body of water suitable for this purpose. Those accustomed to the delightfully invigorating effects of the morning swim consider it as much of a necessity as their breakfast, or even more.

Most artificial swimming-pools are unfortunately built indoors. An indoor pool not only lacks the fascination of the outdoor adaptation of "the old swimming hole," but it also robs one of the natural accompaniments of outdoor bathing,—fresh air and sunshine. Bathers often spend considerable time lying about on the banks of the stream or on the sandy beach, alternately basking in the rays of the sun and dipping beneath the cooling waves. Powerful impressions are made upon the body by the contact of the skin with the cool outdoor air and sunshine.

THE EMPTY POOL

The outdoor gymnasium provides a combination of the healing agencies of nature,—abundance of pure air for breathing, facilities for exercise, sun baths, air baths, earth baths, and water baths. Here one can enjoy all the pleasures and obtain all the benefits, and at the same time escape the publicity of sea or river bathing.

Public outdoor gymnasia are provided in some of the large cities, and are built by sanitariums, hotels, factories, etc. They should be introduced into all hospitals and children's homes, and no public institution should be considered complete without one. In the heart of our large cities, conducted in connection

VIEW OF THE POOL WHEN FILLED

with the city parks, they would be a powerful means of antagonizing the deteriorating influences of city life.

The ideal, however, for those who can obtain it, and these are not few, is the *private* outdoor gymnasium. So much has been and is being said in favor of the outdoor life that it is beginning to have its influence on home building and the regulation of the home life. The illustrations accompanying this article show how one family, living on the outskirts of a city, have solved the problem of returning to nature.

An enthusiast, himself the proud possessor of an outdoor swimming-pool, says that it should be considered as much of a necessity of the country home as the barn or the ice-house. The method of its construction will of course be determined by the means of the owner. It may be anything, from the dammed brook of the small landowner, to the marble-lined pool of the millionaire.

If nothing better is obtainable, a swimming-pool for boys which is well worth while may be made by building a dam across a brook or running stream. The dam may be constructed of boxes filled with sand, rocks, and sods, or of field stones mortared together. Such a pool as this is, of course, available only for a few months in the height of the sum-

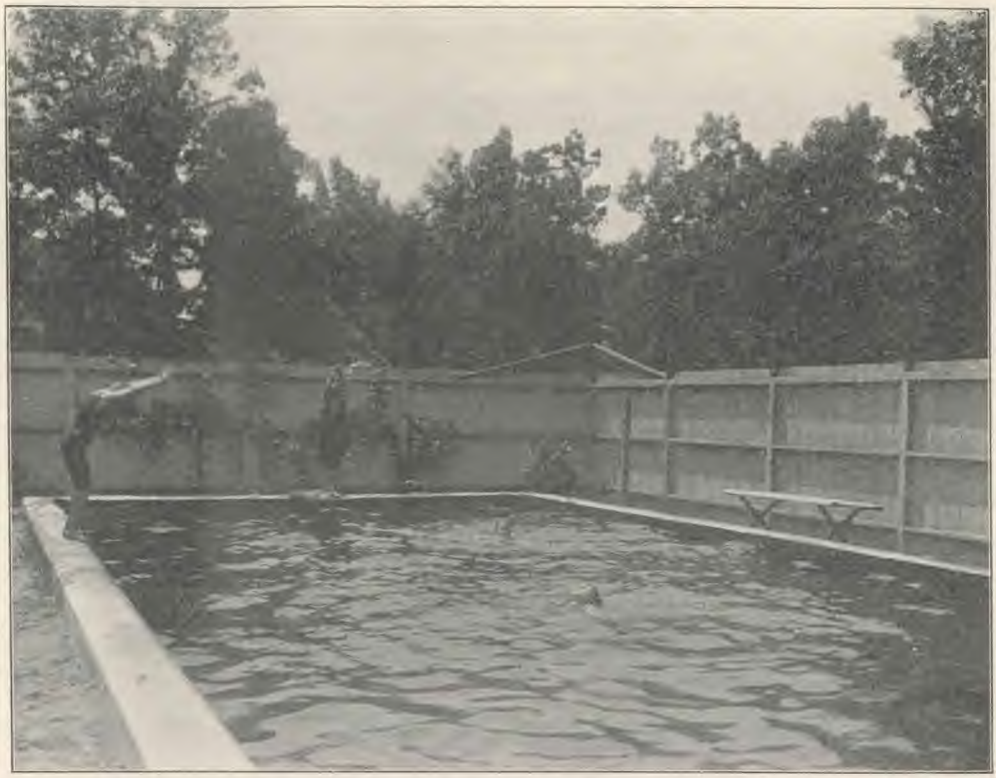
THE POOL SHOWING THE DRESSING-ROOMS

mer, as the water, which can not be artificially heated, is too cold for bathing purposes during the greater part of the year.

The cheapest kind of concrete pool can be constructed at a cost of from seven hundred to one thousand dollars, including bathhouse and fence. As this does not allow for heating apparatus, such a pool has the same disadvantage as the brook pool; it is of service only for three or four out of the twelve months. Moreover, a pool built of cheap cement and not waterproofed will be apt to have a slight leakage. It must not be constructed on ground sloping toward the house, as the leakage will give a damp cellar.

A very satisfactory and practicable cement pool, waterproofed, and with arrangements for heating the water, can be provided at a cost of about two thousand dollars.

The construction of a swimming-pool presents two problems — to keep the water out of it, and to keep the water in it. Thorough under-drainage, deep drains all around the pool, and waterproofing the outside of the walls with asphalt, prevents the drainage water from entering the pool. Leakage from the pool is prevented by having the bottom and walls of the pool strongly built, and using only the best cement.



OPEN-AIR SWIMMING

An architect of wide experience in the construction of pools advises the following method: "On the dirt floor of the excavated hole, put sixteen inches of concrete, one part Portland cement, two of sand, and five of crushed stone (use larger than two inches). On top of this

RECREATION HOUR

is placed a layer of plaster of a one-to-three mixture. On this is laid waterproofing, which is five-ply, of felt and hot asphalt. Then comes another stratum of concrete one foot thick, finished off in plaster.

"The walls of the pool are laid in concrete footings four feet wide and two feet high. The portion of the wall farthest from the water is made of ordinary brick laid in pavement mortar and grouted. Then waterproofing is applied of the same ply as on the flooring, then brick. The first stratum of brick is two feet thick, the second stratum about one foot thick. Care must be taken to keep down the waterproofing with weight if below ground water. That is why it is put on the flooring between sixteen inches of concrete and a foot of concrete. The tendency of waterproofing is to rise and lift when outside water is trying to get in."

Carrara glass makes a fine homogeneous facing for the floor and walls, for it is essential that there be no sharp edges or projections; but a smoothly troweled cement wall will be found very satisfactory.

Swimming-pools are usually built with sloping bottoms, so that the depth of water increases gradually from three to eight or ten feet. This provides a place where beginners may practise, and where one can rest after swimming.

There are various ways of regulating the temperature of the water. It may be done by merely letting the water run through an ordinary greenhouse heater; by storage tanks heated by steam; or by the usual method of placing steam coils in the pool itself. By stopping the outflow for a while a higher temperature can be obtained.

One important point to be considered in building an outdoor gymnasium, is protection from observation, so that the

fullest exposure to the sun and sky may be securely enjoyed. For this purpose a high tight wall or close fence is necessary. The one shown in the illustration is seven feet high.

Trees within the enclosure are desirable from the esthetic standpoint, and more particularly because they provide a most agreeable shelter from the sun's rays in the hottest weather.

The sand pile provides a delightful play place for the children, suggestive of a sandy beach and of sea bathing. It also forms a convenient and appropriate couch for the older folks. The sun-warmed sand is an efficient means of inducing perspiration when it is desirable.

The outdoor gymnasium here illustrated is situated 190 feet from the house, at the back, where it is well screened from the lawn and driveway. The enclosure is seventy-four by sixty-eight feet. It contains a sand pile, a Maypole, five dressing-rooms, a spray-room, and a lavatory. The cost of its construction was $655.

The Adulteration of "Boston Baked Beans."

Boston was recently shocked by the discovery that the traditional baked beans consumed in such quantities by its inhabitants were "doctored"—"preserved" with salicylic acid — by some of the most prominent purveyors. An old-fashioned brick oven is necessary to give the famous "Boston baked beans" their cherry red color and distinguishing flavor. As brick ovens are rare nowadays, most Bostonians have their beans prepared by manufacturers who cook hundreds of bushels in their brick ovens every Saturday. They form the main dish at the Saturday night supper in every Boston household, and the remnants are kept for the Sunday morning breakfast. It is to preserve them for this meal that the salicylic acid has been added. This adulteration affects one of Boston's most sacred traditions. The discovery promises to be far-reaching in its effect upon the demand for beans, at any rate until the people are assured of the future purity of their favorite staple.

Prevention of Lead Poisoning.

An invention of exceeding value to painters, whitewashers, varnishers, and all workmen who handle compositions of which lead is an ingredient, is noticed in the *Scientific American*. Such persons sooner or later suffer from lead poisoning, for despite the most scrupulous cleaning, the hand will retain some traces of the lead, which ultimately find their way to the mouth in eating, drinking, or smoking. Ordinary soap may, by the chemical combination to which it gives rise, even increase the amount of lead adhering to the skin. A German chemist has invented a soap for the purpose of so acting upon the lead adhering to the skin as to render it quite harmless. The particles of lead are changed into a non-poisonous compound (sulphid of lead) by the simple process of washing with this soap.

Hat-Pin Headaches.

English physicians have come to the conclusion that the hat-pins worn by women to secure their headgear are a prolific source of headaches. The *Lancet* claims that the leverage on the roots of the hair on a windy day when the large hat is flapping in the breeze is one of the causes of the headaches of which many women complain after a buffeting with the elements. A device has been put upon the market in England to relieve strain and thus prevent the headaches.

CHRISTIE BELLEW'S EXPERIENCE

BY HELEN M. LAKE

CHRISTIE BELLEW was her father's housekeeper, and a mother to her young sister Nan, though she herself was only twenty-one. She was not a beauty, but she was comely and sweet, and very much in earnest about doing her whole duty in the home, which she had kept so carefully for the three years since her mother's death. Just now a problem was drawing her pretty, straight eyebrows close together and her lips shut with a determination that augured ill for the problem if it was at all obstinate about being solved.

"Christie!" called an impatient voice from the adjoining room.

"Yes, father, I will be there in a minute."

Her father was suffering from rheumatism, and had been helpless for many days. Christie's minute was long enough to drive the frown from her brows and the severe determination from her lips. It was a cheery face that bent over the sick man, a cross man, be it confessed.

"You heard what the doctor said, Christie?"

"Yes, father; that you must have no meat for at least a month, maybe two. I was wondering about your dinner just now."

"I don't see the sense in starving a helpless man," he grumbled. His grim smile was half obstinate, half amused. "I suppose I must humor him; these young doctors are as full of whims as an old woman. I'll have the rest of that chicken, though, before I begin living on nothing."

"Better not, father," said the girl, with a reassuring smile. "It won't be as bad as you fear. Dr. John left a book for me on vegetarian cooking. It really is very interesting, and the new recipes sound appetizing. I have your dinner nearly planned. Nan and I have agreed to try the same things, so you need not be tempted by the smell of anything too savory."

Her father shook his head with emphasis. "No," he declared, "I am not so selfish as to make you children share all my trouble. Go on and cook your chicken and your steaks, my dear; I have some self-control if I am full of pains and temper. You have to share the temper, so I won't insist on your sharing the starvation diet, too."

"But, father," remonstrated smiling Christie, "there isn't anything like starving in this program. Look at Dr. John. He never eats meat, and he isn't an absolute skeleton."

They both laughed, for Dr. John Bliss was a very athletic specimen of young manhood, with a pure, strong face that showed you his habits of life and thought, and an energy that seemed untiring. They had known him from boyhood, and when, after his professional course, he came back to the home town, it was to join forces with the oldest physician in the place, who chanced to be the family physician of the Bellews, and who also chanced to be out of town on a vacation when Mr. Bellew fell sick. Otherwise, although they all welcomed the junior partner as a friend, he would not have been invited in professionally.

It was pleasant to chat with Christie of old school days, and he was not too busy to stop at his patient's bedside for a bit of political gossip now and then. Then, out on the porch, the nurse had to have instructions. These sometimes grew extensive and general, for Christie

had an inquiring mind, and all young doctors are blessed with a generous desire to instruct. His ideas were advanced, and Christie was responsive and earnest, and full of enthusiasm.

So she kissed her father with a smile which promised much, as she went out to prepare his dinner.

An hour later she returned with a tray which she placed on a small table beside his couch.

He laid down his morning paper, and with a good deal of curiosity he glanced over the tray. Christie's cheeks were flushed and her eyes bright as she waited his verdict. He was not a gormand, but was, without doubt, one of those who enjoyed feasts of fat things, and she was not sure that he would be satisfied with the simple foods.

The tray was covered with the whitest of napkins; the prettiest china in the house was set forth for his pleasure; and the silver was spotless. There was a bowl of soup emitting most appetizing whiffs of steam; a baked potato, partly broken open; a slice of whole-wheat bread; a pat of butter, and a small omelet. By way of dessert was a baked apple with whipped cream.

"It certainly does look good, daughter," he admitted with genuine appreciation. "But this soup, now—" drawing it toward him and tasting it critically. "It's fine. There must have been meat in this."

"No, father," she declared. "It has no suspicion of meat. It is made of onions, potatoes, celery, and tomatoes. I pared the apples, took out the cores; then stuffed the opening with bananas, and dusted them with sugar before they were baked. Nan and I are determined to try the experiment with you, so our dinner is the same as yours. A little later I will bring you some hot lemonade."

"Why, where's my coffee?" demanded the patient.

"Dr. John says," she answered cautiously, "that the less you drink with your meals, the better, and that acid drinks are important in your case. Won't the lemonade do?"

She coaxed so sweetly that he could not disappoint her, and admitted the dinner was a success without the coffee; and she left him to follow the fortunes of Pendennis for at least the twentieth time and to doze over some of the less exciting adventures of this hero.

Christie, meantime, studied the book which the doctor had given her, made some notes on her tablet, and finally went out to interview a progressive grocer in the neighborhood. She remembered seeing on his shelves packages of so-called health foods; had tried a box of granose biscuit and another of zwieback and found them to her liking. So she bought protose, nuttolene, nut butter, bromose, cream sticks, caramel cereal coffee, toasted corn flakes, and nuts; and went home to study domestic science on purely vegetarian lines.

There were combinations of nuts and bread-crumbs with eggs that were alluring to an ambitious cook, but for the present the plainer dishes were necessarily better for her father than those more elaborate dishes. One thing troubled her. The doctor and the book both recommended no supper at all, and because they had always been used to it, this family always made a hearty evening meal. Her father would not give it up, she was sure, but by making it gradually more and more simple, they would get nearer what was growing, under suggestion, to be a more ideal condition.

It is difficult for one who is young and full of enthusiasm not to overdo reforms, and Christie's real task lay in such judicious management as would result in

satisfying her father and finally bringing him to the newer and wiser way of living. But she knew that it would require much time and thought and infinite patience. Her father had always been used to his slice of cold meat, hot oysters, or other hearty savory dish for supper, and she began the siege with a full understanding of its difficulties, but sure of victory in the end.

So the dainty tray was set before him at supper-time with milk toast,— zwieback just dipped in hot milk and slightly buttered — a small saucer of raw peanuts that had been ground in a meat chopper and moistened with cream, and a generous dish of fresh shredded pineapple. A spray of his favorite heliotrope and some purple pansies in a tiny glass gave a festive air to the simple meal, and his daughter sat and chatted with him while he ate.

"Where's my tea?" he demanded suddenly. "I thought something was missing."

"Wouldn't you like a glass of hot grape juice to-night, father?" asked Christie in some trepidation, for both the book and the doctor assured her that he would be far better without even the stimulant of tea or coffee.

"Yes," he said, rather reluctantly; "I suppose so. I like grape juice, but you are cutting me down with a vengeance. I don't know as I miss the meat as much as I expected to, and I certainly feel better than I did last night,— not so much pain and less distress in my stomach. Now go and eat your own supper, children; I feel as if I could read a little to-night. Don't forget the grape juice."

Christie and Nan enjoyed their own supper no less than their father had his. Granose flakes were delicious with the shredded pineapple, and the creamy ground peanuts were not less so.

"I think, sister," said jolly little Nan, "that these things are a whole lot nicer for supper than meat and fried potatoes, and only think! there are hardly any dishes to wash. But," she suddenly added, "you are forgetting father's grape juice."

"No," answered smiling Christie, "I am not forgetting, but I hope he is for a little while. I want him to eat without drinking and wait a while after his meals, if I can manage it."

"But we are drinking milk," said the small questioner. "If we are going to turn over the new leaf, too, oughtn't we to give up milk with our meals?"

"No," answered the young student of healthful cooking. "Milk is a real food, and we need only to be careful not to drink it rapidly nor use it to wash down solid food. I notice you are eating too fast again, little sister. Just stop and see how much better everything tastes if you hold it in your mouth and chew it very fine."

Little Nan made such a serious business of her test, with her curly head on one side, that Christie could not but laugh, though she wished to impress the idea both upon her sister and herself.

"I'll tell you what we'll do, honey," she said, after a minute of consideration. "We'll pay fines for eating too fast. How would you like that?"

"Tell me about it," cried Nan, always ready for anything that looked like a game.

"Well," said Christie, "I'll make some little pasteboard pennies, pink ones for you and white ones for me, and put them in that thin glass toothpick holder. Then my little silver match box will do to put the fines in. They will not make the table look untidy, and when either one of us eats too fast, pop! will go a little pink or white penny into the box. Once a week we'll count the pieces and pay up in real pennies."

"Will they be for foreign missions?" asked Nan with a lifted eyebrow. "You know I don't—" she hesitated a little—"appreciate foreign missions, Christie," she apologized.

"No," said Christie, smiling, "this is home missionary work purely."

"And we'll use it for something," added Nan eagerly, "that we have to have, but don't care about, else we'll be wanting to put in too many fines."

Their laughter made Mr. Bellew pause in his reading, and he remembered his tea which Christie seemed to have forgotten. She came into the room just as he was about to call her a little impatiently.

"Now, father," she said, "I'll arrange you for the night and bring you the hot grape juice, and then I'll play some of your favorites for you while you go to sleep."

(To be concluded)

A Lesson for American Mothers.

The decline in the birth rate in Great Britain, and the large proportion of deaths among young people, have for some time been causing alarm in that country. A National League for Physical Education has just been inaugurated there, with such men as the Bishop of Ripon, Sir Lauder Brunton, Sir Frederick Maurice, and Sir Wm. Broadbent at its head.

At the first meeting of the League, one speaker remarked: "The result to the country of the terrible evils of the avoidance of the duties of motherhood is a lesson which may well be taken to heart by our fair cousins in America. In this country the evil was confined to the upper classes, but is now to be found among all classes of society."

Mrs. Bramwell Booth, who contributed a notable speech, said: "We must look to it that the great law of nature is obeyed, that mothers will themselves nourish their children; that any mother who would shirk this duty is a shame to herself, and it is a shame to the country if mothers are prevented by stress of circumstances from conforming to this rule."

The object of the newly formed league is "first of all to care for the nation's neglected babies, to see to the physical training of the young, and to bring about united action in combating all the causes which tend to impair the health of the nation, as disclosed by the recent reports on physical deterioration."

The Dangers of Flannelette.

According to the *Lancet*, the days of flannelette should be numbered, yet its popularity does not appear to have been affected by the number of inquests on persons who have been burned in consequence of flannelette garments catching fire. The death-rate roll of children who have been injured by its ignition is appalling. It catches fire and burns as easily as alcohol. The British government has requested coroners to make returns of these cases. One coroner states that last year he held no less than seventy-three inquests on the bodies of children burned to death, a large proportion of the deaths being due to flannelette igniting. "Why wait for more evidence?" the *Lancet* pertinently asks.

Automobiling for Tuberculosis.

Automobiling is now recommended as a most effective means of taking the open-air cure, fresh drafts of abundance of pure air being secured by this means.

SOME NOVELTIES FOR THE LUNCH BASKET

BY ESTELLA F. RITTER

German Potato Cake.— Milk, 3 cups; flour, 16 or 18 cups; salt, 1 rounded teaspoonful; mashed potatoes, 1 cup, after

GERMAN POTATO CAKE

being put through a colander; eggs, 4; sugar, 1½ cups; raisins, 1 cup; lemon extract, 1 tablespoonful; chopped almonds, 1 cup; shortening, ¾ cup; ½ cake compressed yeast, dissolved in ¼ cup of lukewarm water.

To the dissolved yeast, add one cup of the milk, warmed, and stir into this one and one-half cups of flour, making a sponge. Let stand in a warm place for twenty to thirty minutes, or until bubbles form. Then add the salt, mashed potatoes, whites of the eggs slightly beaten, the sugar, the rest of the milk, and the lemon extract, mixing thoroughly with a spoon. Stir in flour gradually, adding the chopped almonds, dredged in flour. When thoroughly mixed, add the raisins, dredged in flour, adding more flour until stiff enough to knead. Then add an emulsion made of the beaten yolks of the eggs and the vegetable oil or other shortening, kneading it in with the hands. Then knead well from ten to fifteen minutes, using a little flour at a time. Set the dough in a warm place, and let it rise to twice its first size, or from three and a half to four hours. Cut off from a half-pound to a pound of dough at a time, knead with a little flour into the shape of a ball, and place on an oiled pie-tin. When all the dough has been thus formed, brush the cakes with one-fourth cup of milk, into which has been stirred half an egg yolk. Make a mixture of four tablespoonfuls of flour, eight tablespoonfuls of sugar, and two tablespoonfuls of butter, rubbing the butter into the dry ingredients with the fingers. Sprinkle this on the cakes, also one-third of a cup of finely sliced blanched almonds. Let rise from one-half to three-fourths hour, and bake in a moderate oven three-fourths to one hour, according to the size of the cake.

This recipe will be sufficient for eight cakes. The raisins may be omitted if preferred.

Potato Buns.— Prepare a dough as directed for German Potato Cake. Shape into balls two or three ounces in weight, using the same mixture for the top as in the foregoing. Put on oiled pie-tins, let rise, and bake twenty to thirty minutes.

Currant Buns.— Roll out the German Potato Cake dough (omitting the raisins in this dough) to one-eighth of an inch in thickness. Spread over it thinly some meltose, then sprinkle with Zante currants, dredged in flour. Roll the dough as for jelly-roll, and cut off pieces one to one and a-half inches in size. Place on an oiled pie-tin, and let rise. Bake from twenty to thirty minutes.

Cheese Cake.— Roll out the German Potato Cake dough (omitting the raisins), and fit into a pie-tin as for pastry. Let rise. Pierce with a fork, and brush with a little beaten yolk of an egg, and bake in

the oven until brown. Make a filling of one heaping cup of rice, pressed through a colander, one cup of cottage cheese, one-third of a cup of sugar, the yolks of two or three eggs, five drops of oil of lemon or one to two teaspoonfuls of lemon extract, and the juice of half a lemon. Bake in the crust until set. Then meringue with the well-beaten whites, and brown.

Apple Cake.— Roll out the German Potato Cake dough (omitting the raisins), and fit into a pie-tin as for pastry. Let rise. Pare nice juicy apples, and cutting them into eighths or quarters, lay closely together into the crust. Sprinkle with a mixture made from one tablespoonful of flour, two tablespoonfuls of sugar, and one-half a tablespoonful of butter, the butter rubbed into the dry ingredients with the fingers. Bake in a moderate oven from twenty to thirty minutes. These should all be made a day before needed.

IN SEPTEMBER

THE sumac and the maple
Put on their scarlet hoods,
And a gold-and-crimson fringe adorns
The mantle of the woods.
The poppies glow among the corn,
And purple muscadines
Sway in their fragrant beauty
Among the emerald vines.

Through waves of cool, translucent mist
A subtle fragrance thrills;
While yellow lights are flashing
From the watchtow'rs of the hills;
Where goldenrods blaze brightly,
And the asters' purple stars
Gleam faintly, as they peep between
The twilight's dusky bars.

The cool winds breathe a promise,
And the shadows write a pledge,
While Autumn stamps her signature
Upon the meadows' edge;
The sunbeams point to burdened boughs,
And fertile yellow fields,
And we dream of luscious fruitage
And the harvest's golden yields.

— *Claudia Tharin.*

RATIONAL TREATMENT OF TUBERCULOSIS OF THE LUNGS

BY HERBERT OSSIG, M. D.

(Continued)

TUBERCULAR patients may be divided into two great classes: —

I. Those who sink away without ever experiencing any hemorrhage from the lungs.

II. Those who show a decided tendency toward loss of blood.

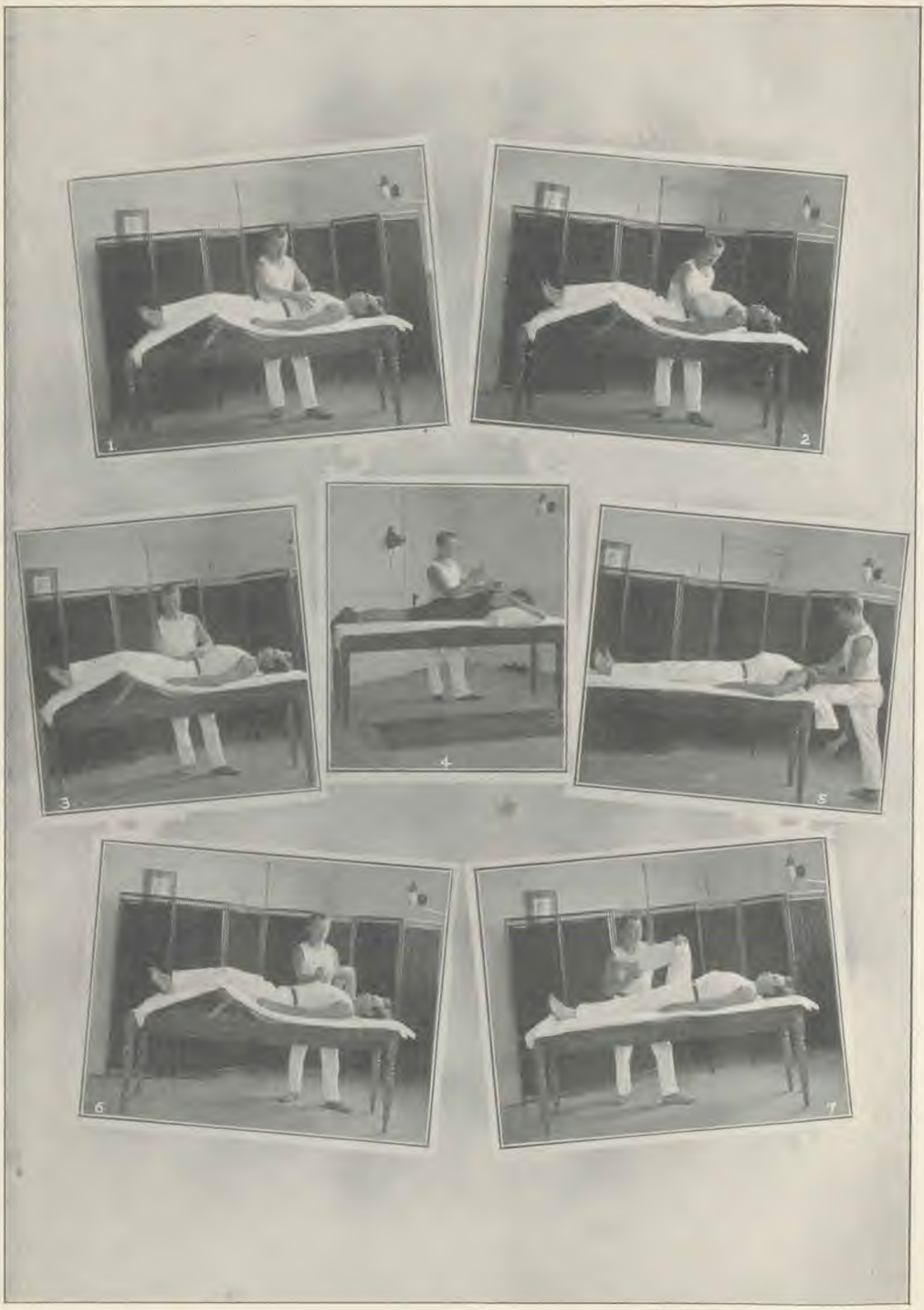
In this issue I will deal only with the first class, leaving the consideration of the "bleeders" for the November number of GOOD HEALTH.

With reference to the degree and amount of physical exertion which consumptives of the first class can stand, we observe four types of patients: —

1. Those who are bedridden and so weak as to be utterly unable to put forth any voluntary effort; who become exhausted even by much handling on the part of a well-meaning nurse.

2. Those who have yet some strength left to do a few simple movements themselves and to offer just a slight resistance to the attendant while taking manual Swedish movements.

3. Those patients who are able to con-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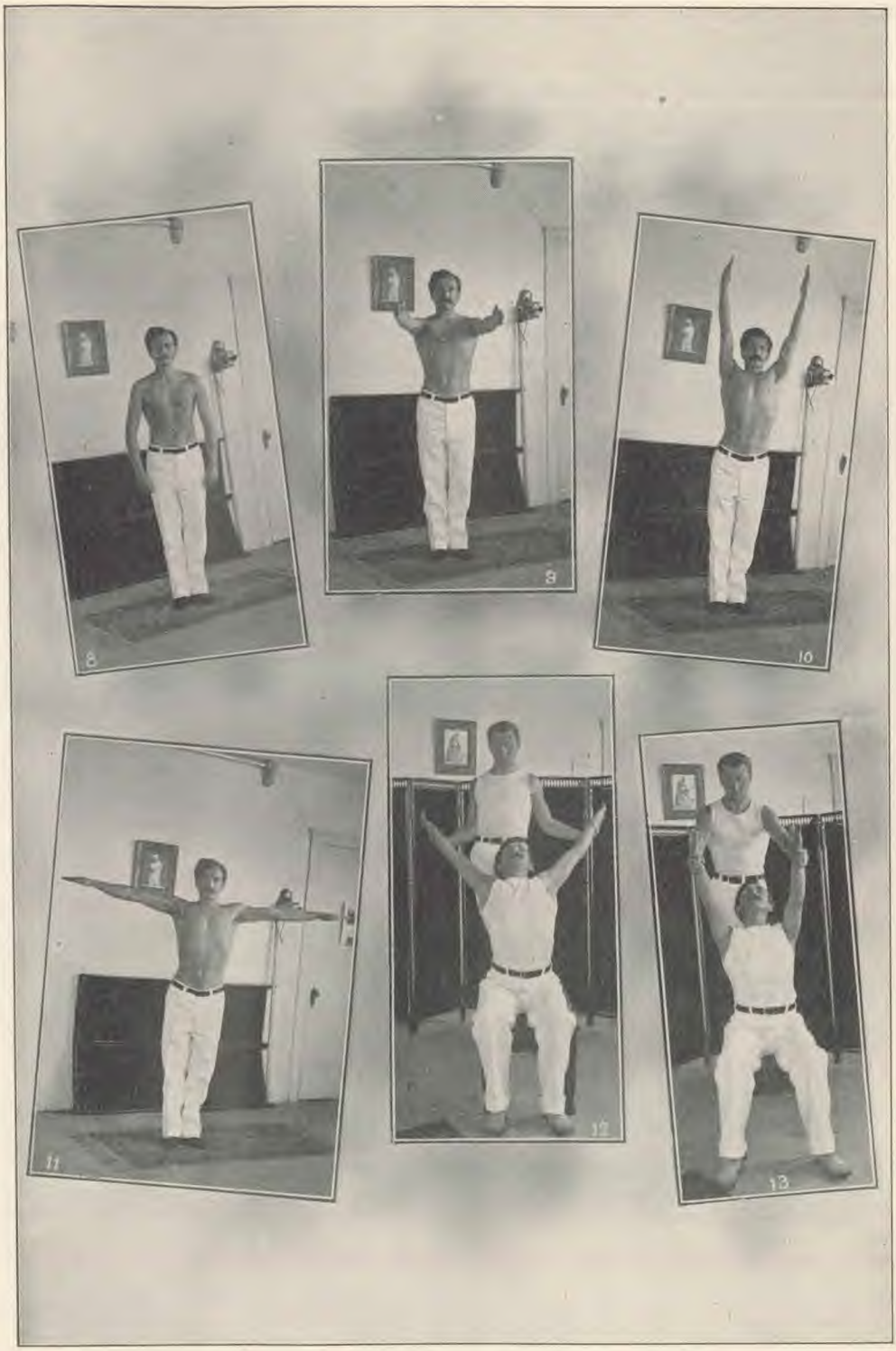
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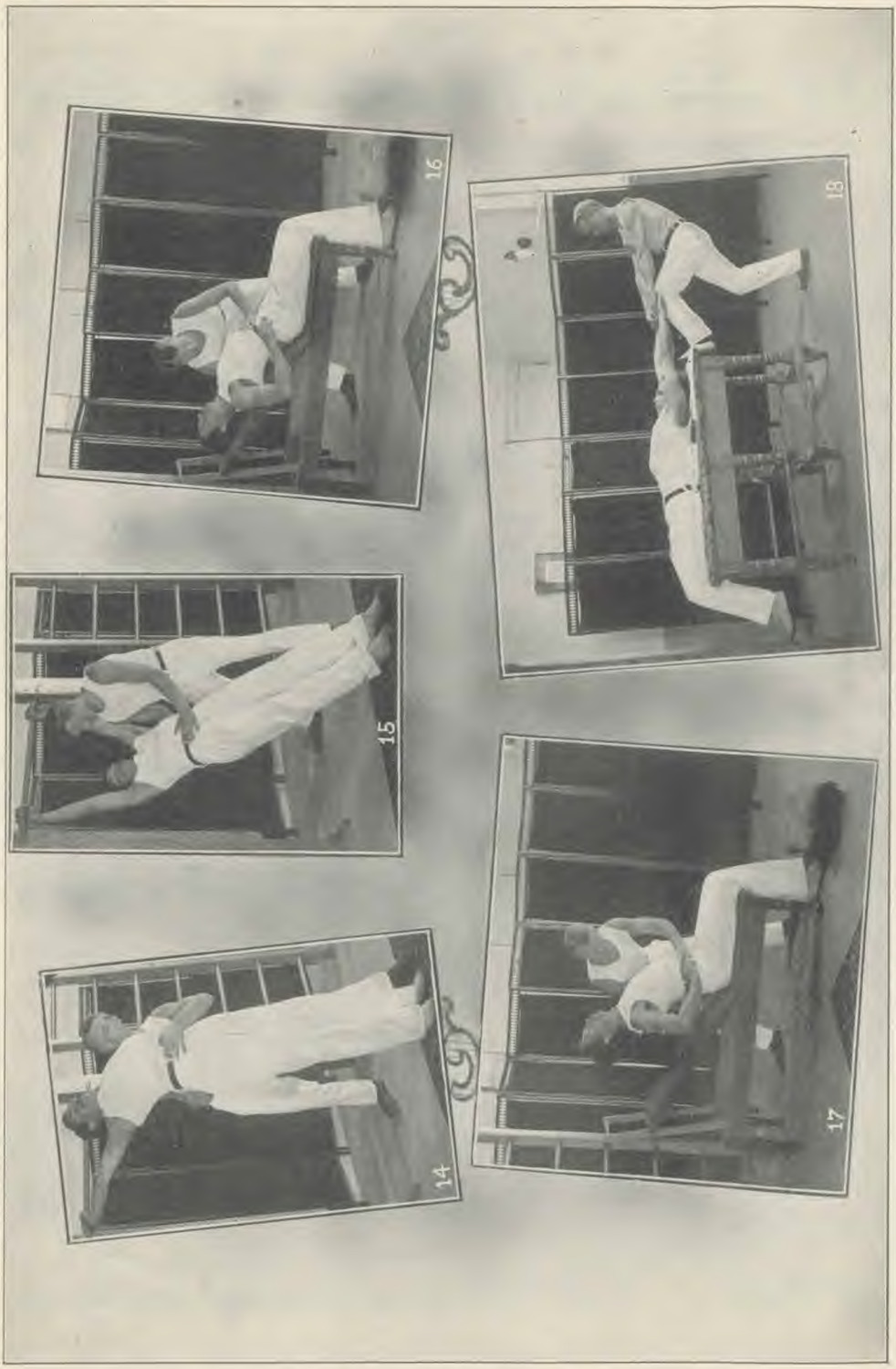
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tract their muscles fairly well and to offer a more vigorous resistance to the gymnastic teacher.

4. Those who have made such satisfactory progress in health and strength that they can practically venture to do real hard work.

The accompanying series of pictures shows various ways in which movements and exercises may be taken. They are classified so as to suit the strength of the four types of consumptives of the first class. Figures 1-7 represent the very weak patient. The exercises shown in Figs. 8-18 are intended for the second type.

Fig. 1.— The attendant assists the patient in a deep inspiration by lifting his chest.

Fig. 2.— The attendant assists the patient in a complete expiration by compressing his chest.

Fig. 3.— Massage to the abdomen.

Fig. 4.— Spinal column hacking.

Fig. 5.— Head rolling and neck stretching.

Fig. 6.— Arm rolling.

Fig. 7.— Thigh rolling.

Fig. 8.— Very forcible expiration.

Fig. 9.— Deep inspiration.

Fig. 10.— Deep inspiration.

Fig. 11.— Expiration.

Fig. 12.— The attendant presses his left knee between the patient's shoulders and pulls the arms backward, upward, and outward, thus assisting the patient in a deep inspiration.

Fig. 13.— The attendant brings the arms downward and forward while the patient exhales.

Fig. 14.— The patient takes a deep inspiration while the attendant presses his chest upward and forward.

Fig. 15.— Complete expiration.

Fig. 16.— Reclining position; feet placed against a heavy object.

Fig. 17.— The patient endeavors to come up to a sitting position with the aid of the attendant.

Fig. 18.— The patient receives a wholesome stretching of the spine, trunk, and extremities.

Causes of Diphtheria.

An exchange calls attention to the fact that there is an observable increase in diphtheria cases among school children almost immediately upon their return to school after holidays, and a gradual decrease as the term advances. This is accounted for by the fact that during vacations the drainage is imperfectly attended to, but with the opening of school there is abundant flushing of pipes by reason of constant use. This theory is interesting when it is taken into consideration that a number of violent outbreaks of this disease have followed long dry spells. An ample supply of good water, with the free use of potash or good soap, would do much toward keeping not only diphtheria, but many other diseases, in check.

Individual Drinking Cups for Children.

An educational journal contains a warning against the common drinking cup in school, as a means of infective contact. The children should be instructed to provide themselves with individual drinking cups. Parents must be given to understand that if the child does not have a drinking cup, it will not be possible to drink in school. The mouth of every consumptive contains the germs of the disease, and the transference of these germs from the sick to the healthy child by means of the common drinking cup is the easiest accident possible.

MALARIAL FEVER OR FEVER AND AGUE

BY J. H. KELLOGG, M. D.

IN ordinary ague in which the paroxysms of chill and fever occur every other day, two programs of treatment are required,— one for the well day, and the other for the sick day.

On the well day the patient should receive treatment for the purpose of increasing his vital resistance, as, if permanently cured at all, it must be by so building up his vitality that the living cells of the blood and tissues will be able to destroy the malarial germs which find entrance to the body. The best means for this purpose are the wet sheet pack, cold mitten friction, the wet sheet rub, the electric-light bath, the sun bath, and a carefully regulated diet. Before rising in the morning, the patient should receive a fomentation over the liver and spleen, followed by a towel rub or a wet sheet rub. About ten o'clock in the forenoon a wet sheet pack should be administered. The pack should be prolonged to the sweating stage, and should be followed by a cold, wet sheet rub at 60° for two minutes. At bedtime another fomentation over the stomach and liver should be applied and the wet sheet rub administered. The wet girdle should be worn in the intervals between the treatments. It should be applied at night to be worn overnight. It must be well covered so as not to provoke chill.

The diet should consist of fruits, grains, and a small supply of nuts or wholesome nut products. The patient should take great care to masticate the food thoroughly, so that it may be completely and promptly digested. The amount of food taken should be moderate, only just sufficient for the needs. If the bowels do not move freely, a cold enema should be administered half an hour after breakfast (two or three pints of water at 75° F.).

On the day when the chill is expected, the patient should remain in bed. A short, vigorous cold mitten friction should be administered, and the patient should be given hot fruit soup, stewed fruit, or fruit juice with a bit of well-toasted zwieback or granose biscuit, or two or three ounces of granola. If the chill is expected as early as eight or nine o'clock, it is better to omit the breakfast, as it will not be digested. Fruit juice without cane-sugar or a little stewed fruit may be taken, but no farinaceous food. Orange, grape, or apple juice, and other fruit juices which have a decided flavor, are the most acceptable to the patient. These fruit juices may be taken either hot or cold. At least a pint and a half or two pints should be swallowed in the course of the morning.

It is important to note the time at which the chill will occur. If the paroxysms have been occurring regularly for some time, the exact hour may be known. The approach of the chill may be ascertained by means of the thermometer. The temperature should be taken on awakening in the morning, and regularly at intervals of half an hour. As soon as a rise of half a degree is noticed, treatment should be begun. The purpose of the first treatment administered is to prevent the chill if possible, or at least to mitigate its severity. Quite frequently the chill can be entirely prevented; it can always be mitigated.

If the severity of the chill can be lessened, or if it can be entirely prevented, the intensity of the fever which follows

it may be proportionately diminished. The chill is always attended by spasm of the surface vessels, shown first by pallor, then by a blue tint. The purpose of the preventive treatment is to prevent this spasm by thoroughly dilating the surface vessels. The writer has found the following method eminently successful for this purpose: —

A very hot bath (104° to 110°) for three to five minutes until the skin is well reddened. Either a shower or a full bath may be given, or, if neither is convenient, the skin may be heated by a hot blanket pack for ten minutes. After the hot bath the patient stands up in the tub, and two or three pailfuls of very cold water are poured over him. The temperature of the water should be 60° or less. Immediately after the cold application the patient is wrapped in woolen blankets, and rubbed outside the blankets until thorough reaction occurs. Hot bags, bottles, jugs, or heated bricks are placed at the feet, beside the legs, at the sides of the trunk, and the shoulders, and the patient is buried in heavy coverings so as to provoke perspiration. Half a glass of hot water or hot lemonade should be administered every fifteen minutes.

When the application succeeds, the patient will be perspiring freely at about the time when the chill would have occurred if no treatment had been given. The hot applications must not, however, remain in place for too long a time, as otherwise fever may be induced by the superheating; but the patient should remain in the dry pack until an hour or two after the time for the chill has passed. The hot bags and blankets must be very carefully withdrawn, so as not to chill the patient by the evaporation of the moisture thrown off from the body. If the chill is averted, the patient remains quietly in bed until the middle of the afternoon, when a fomentation is applied over the stomach and liver, a cold towel rub is administered, a wet bandage is applied, and then he may be allowed to eat. A moderate meal of fruits and zwieback, granose, or dry toast is best. Butter and other fats must be avoided, also coarse vegetables, sweets, pastry, and all indigestibles.

If a slight chill occurs in spite of the treatment, the hot bags and wrappings must be removed as soon as the chill has ceased, that the fever may not be aggravated; and when the disposition to chill has entirely disappeared, measures to reduce the fever may be employed. These are important, as the temperature sometimes rises very rapidly and very high after malarial chill.

A cold compress should be constantly applied to the head, and the cooling pack may be administered. As soon as the sweating stage begins, cooling measures are no longer indicated. It is then only necessary to cool the head and with a soft cloth to wipe off the skin when it becomes wet with perspiration. If profuse perspiration continues after the temperature has returned to normal, an alcohol rub may be administered.

At bedtime, if the skin is dry, a fomentation should be applied over the stomach and liver, after which a cold towel rub or cold mitten friction should be administered, and the wet girdle applied, to be worn during the night.

The next day, the well-day program should be carried out as before. On the following day the preventive treatment should be again resorted to. Care should be taken to begin the preventive treatment in good season. If the application is delayed until the nails and lips become blue, and chilly sensations are felt, the treatment will probably fail to accom-

plish the desired result. In such a case it is better to apply a dry pack with vigorous rubbing of the surface than to resort to water treatment of any kind, as evaporation which takes place when the skin is wet, is certain to precipitate the chill or to aggravate it.

On the other hand, it is important to avoid the too early application of preventive treatment. If the perspiration begins an hour before the time for the chill to occur, the cooling of the surface resulting from the evaporation of the perspiration may encourage instead of prevent the chill. A little experience is sometimes necessary to determine just when to begin the preventive treatment.

It should be known, also, that the first effect of the treatment in many cases is to destroy the regularity of the paroxysms. It is an indication of improvement when the chill is delayed. When the chill occurs earlier, it indicates that the parasites are increasing in number.

Care must be taken to regulate the bowels by a cool enema at 75°, administered at least once a day. The enema should be given soon after waking, on the day that the chill is expected.

In cases in which the disease does not readily yield to the measures above described, or when the attempt to prevent the chill has been made two or three times without success, a small dose of quinin, ten or fifteen grains, should be administered. Three doses of five grains each should be taken: one at bedtime the day before the chill is expected, another about four o'clock in the morning, and another three or four hours later. The aim should be to administer the medicine within a few hours before the time of the expected chill.

It should not be necessary to administer quinin more than once when the measures described are thoroughly employed, and in quite a large proportion of cases the paroxysms may be interrupted without the use of quinin at all. The writer has succeeded with many cases of intermittent fever without administering any medicine.

When a cure is effected without the use of any antipyretic drug, the results are much more permanent than when the paroxysms are suspended as the result of drug medication alone, for the reason that the malady has been conquered by the system itself. The cells have become strong enough to compete with the parasites, so that they have been destroyed by the natural forces of the body. When the parasites are destroyed by quinin, a new attack is liable to occur whenever a new infection takes place; and not infrequently relapse occurs without a new infection, through the development of the few parasites which have not been destroyed by the quinin, and, remaining behind, multiply until the numbers become sufficient to produce a fully developed chill and fever.

Every case of intermittent malarial fever can be promptly checked by the method above outlined; and by continuing the use of daily tonic cold baths for some weeks, the system may be so fortified that a relapse will not be likely to occur. However, it is important that all known preventive measures should be employed. The bites of the mosquitoes should be prevented by the use of mosquito netting, and care should be taken to avoid breathing miasmatic air or the drinking of surface water unless the water has been carefully boiled.

"How can a magic box of pills,
Syrup, or vegetable juice,
Eradicate at once those ills
Which years of luxury produce?"

Chautauqua School of Health

THE DIETETIC VALUE OF FRUITS

BY J. H. KELLOGG, M. D.

THERE are many popular but unfounded prejudices against the dietetic use of fruits. It is generally supposed, for example, that fruits are conducive to bowel disorders, and that they are especially prone to produce indigestion if taken at the last meal. The truth is the very opposite of these notions. An exclusive diet of fruit is one of the best-known remedies for chronic bowel disorders. During the late war, large numbers of soldiers suffering from chronic dysentery were in several instances rapidly cured when abundantly supplied with ripe peaches. Fruit juice may be advantageously used in both acute and chronic bowel disorders. Care must be taken, however, to avoid fruit juices which contain a large amount of cane sugar. Juices of sweet fruits should be employed, or a mixture of sour and sweet fruit juices, or acid fruit juice may be sweetened with malt honey or meltose, a natural sweet produced from cereals. Raisins, figs, prunes, sweet apples, and pears may be mixed with sour fruits.

Indigestion sometimes results from the use of fruits in combination with a variety of other food substances; but fruits taken alone constitute the best possible menu for the last meal of the day. The combination of fruit, sugar, cream, bread, butter, cake, and pie may well produce bad dreams and a bad taste in the mouth in the morning. The use of fresh or stewed fruit alone without any addition whatever will produce no disturbance, and will leave no unpleasant effects behind to be regretted in the morning. Very acid fruits sometimes disagree with persons who have an excess of acid and those who are suffering from chronic inflammation of the stomach; but with these exceptions, there are almost no cases in which fruit may not be advantageously used.

The notion that acid fruits must be avoided by rheumatics is another error which is based on inaccurate observations. The fact is, rheumatics are greatly benefited by the use of fruit. At the same time they should abstain from flesh foods of all sorts, beef tea and animal broths, and all meat preparations, also tea and coffee, as well as alcohol and tobacco. It is, of course, possible for one to take an excess of acids, as one may take an excess of starch or any other food substances. Vegetable acids differ from mineral acids in the fact that they do not accumulate in the body, but are assimilated or utilized in the same way as sugar and allied substances.

Fruits have an advantage over all other foods in that they furnish to the system, in a completely digested form, ready for immediate assimilation, such material as is needed to re-enforce muscular energy.

To this fact is due the refreshment which is so promptly afforded by fruit juices when one is tired, and the craving for juicy fruits under such circumstances. Most juicy fruits furnish not only water, but a small amount of digested food substance in the form of sugar, which is taken at once into the blood, and being carried to the muscles, replenishes the stores of energy which have been reduced by activity, and so brings refreshment and re-enforcement of vigor and strength.

Fruits also aid the digestion of other foods by promoting the formation of the gastric juice, and particularly the production of pepsin.

Another advantage afforded by the use of fruits is the fact that fruit acids readily destroy nearly all germs. Typhoid fever germs, cholera germs, and other germs likely to produce acute disease, are quickly killed by coming in contact with dilute solutions of citric and malic acids. Lemon or sour apple juice destroys germs almost instantly. The juice of a lemon added to a glass of water may be relied upon to render the water sterile within half an hour, even though it may contain the germs of typhoid fever and cholera. This precaution may be advantageously taken by travelers, though, of course, it would be better to avoid all risk by using only boiled water when traveling. The antiseptic properties of fruit render it exceedingly valuable as a means of cleansing the stomach and the alimentary canal. The germs which grow in the stomach are all quickly killed when placed in the pure juice of fresh fruit. This explains the beneficial effect of the grape cure, the apple cure, the peach cure, and various other fruit cures which have been for many years practised in Switzerland and other portions of Europe, and have more recently been employed in California, Ohio, and other States.

The writer has for a number of years made use of an exclusive fruit diet in the treatment of obesity, biliousness, and various forms of indigestion. In obesity, an exclusive fruit diet for three or four days causes a rapid loss of flesh without any considerable amount of discomfort. Fruit fills the stomach, and stays the craving for food, while furnishing very little nutritive material. Acid fruits are preferable to sweet fruits for this purpose. It is a good plan for a person who is too fat to make his diet consist largely of fruit, taking other food only at the midday meal. Persons suffering from chronic biliousness may pursue the same plan.

In fevers, fruits, especially in the form of fruit juices or fruit soups, are a most convenient food, and certainly the most appropriate of all foods. It is almost universally recognized as an established fact that beef tea and meat preparations of all sorts should be wholly withheld in cases of fever, as the patient is already suffering from the accumulation of waste matters to such a degree that the addition of even the smallest amount contained in beef tea or a small piece of meat may be sufficient to give rise to an exacerbation of the disease and to lessen the patient's chances of recovery.

Persons suffering from acid dyspepsia must avoid sour fruits. Their stomachs are abnormal, and sensitive to acids. Organic acids, for some unknown reasons, are more irritating to these sore stomachs even than the acid of the gastric juice. Such persons may eat sweet prunes, pears, stewed raisins, baked bananas, and sometimes well-ripened peaches. They must avoid the more acid fruits.

SCHOOL HYGIENE

BY KATE LINDSAY, M. D.

TRAMP, tramp, tramp, the boys and girls — the future citizens of this great republic — will soon be marching to schools, colleges, and universities, to be trained and armed with weapons suitable to fight the battles of life and insure success in the great struggle for existence. They will be trained to help human progress, and as a result of this training they will be better farmers, merchants, mechanics, and professional men and women, with strong bodies, sound, keen intellects, and, above all, strong, clean morals. Their education will help them to be more capable husbands, wives, fathers, and mothers; they will be prepared to meet and fulfil social duties and to make good citizens.

It is a great privilege for youthful America to anticipate its future possibility, provided it is prepared to meet and do all the good awaiting it in the years to come.

Who are responsible for the training of these young people? Who see that their bodies are properly cared for, and that a firm foundation is laid for sound, physically healthy bodies, free from disfiguring deformities, and in possession of the normal integrity of each bodily organ with the normal performance of every vital function? Who feels the responsibility of seeing that each of the young students is a healthy, happy young animal?

Most surely it is the duty of fathers, mothers, guardians, and caretakers, as well as of teachers and all educators, to remember that the human body must be cared for and educated, and its normal wants met by proper air, food, water, rest, exercise, and clothing. A starved child will not grow, but will become weak, stunted, and diseased just the same as an underfed colt, calf, or lamb.

Let us consider what provisions are made to educate and train the body, and what dwarfing influences are to be met and overcome in the present system of education. What is the present system of school hygiene doing for the physical health of the millions of citizens under training this school year of 1905-'06? What will be their physical condition when the summer vacation comes, as compared with their condition when they entered the schools the past autumn? Many of these pupils are boys and girls fresh from the freedom and vigorous activity of the farm, with healthy appetites, and full of energy. All at once, without any instruction or preparation for the change, they are shut up within the four walls of a badly ventilated schoolroom; left often to choose their own boarding-house and food, and to curtail the needed sleeping hours, either consuming midnight oil in "cramming," or oftener still worse, in the case of boys, spending the nights in wild carousals, innocent lads being initiated into the mysteries of the tobacco, drink, and other vice habits. There is no one to tell the student that his dulness, coated tongue, bad-tasting mouth in the morning, paleness, listlessness, and loss of weight come from the toxins due to an excess of food and want of exercise, or that these symptoms are the baneful effects of poisoning from narcotics and the wear and tear of the nerve structure resulting from want of proper sleep, and the nerve-tissue destruction and demoralization following vicious habits.

Truly, it is a much-needed and much-neglected branch of home missionary

work — this educating the student how to care for his own body and how to train his organism to endure the change, confinement, and fatigue of the legitimate work of a school year, as well as to save him from the much worse results of bad habits so often learned from others at school.

Then, many students enter school with some physical imperfection, some organic disorder, or perhaps some contagious chronic disease. Many children have defective eyesight and suffer for want of properly adjusted glasses. Their astigmatism, myopia, or some other error of refraction does not cause serious discomfort until the eye strain required to accommodate the vision for close work brings on headache, irritability of temper, and digestive disorders, which so often perplex even the physician, who fails to look in the right direction for the causes of these disorders.

The teacher should be a close observer of his pupils, and should know when they are failing in bodily stamina as well as when they are not keeping up their scholarship record.

Often little consideration is shown the stupid members of a class. The dull boy or girl is always expected to be at the foot, yet the cause of the dulness may be only natural timidity due to imperfect hearing, mouth-breathing, the result of enlarged tonsils, nasal catarrh, or growths in the nose, all of which conditions can easily be relieved. The health would be more vigorous and the normal mental activity of the brain would be manifested in increased ability to acquire knowledge.

Of the contagious and infectious diseases contracted in school, the most common is pulmonary tuberculosis. It is so often the habit of thrifty parents to send the sickly tubercular child to school and keep the strong and healthy boys and girls at home to work on the farm or to help with the housework, that many cases of this disease in all stages may still be found even in the country schools. Such pupils are a source of great danger to others, as by coughing they fill the atmosphere with infected droplets of mucopurulent exudates full of bacilli, and by expectorating on the floors, fill the room with infected dust. Then sometimes the teacher is the victim of this insidious disorder, and all in the room may run the risk of infection because of breathing infected air.

In good school hygiene one important element is a healthy teacher.

Pulmonary tuberculosis being usually a fatal disorder in children under fifteen years of age, it would be no deprivation of life's chances of success to keep such children at home. In fact, if they have any chance to live at all, it is in an outdoor life. To send them to school is to send them to the grave speedily. Then they are almost certain to infect some one else.

Of the infectious parasitic skin diseases, ringworm is most likely to become a serious infection. It is hard to cure, especially when of the scalp, and if not properly treated, it may infect the whole school, and from this center a whole community. Every teacher should be on the lookout for any bald spots on the scalp or any eruption, and should notify the parents of the same, and insist on such children submitting to medical inspection and proper treatment to cure them and prevent their infecting others. At times it may be necessary to suspend from the school, children infected with scabies, or itch, and other head and body parasites, but these disorders are so easily cured by a plentiful use of soap and water, assisted by sulphur ointment,

kerosene, and a fine comb, that a few days of leave of absence from school for treatment will always result in a complete cure.

Diseases of the mouth, throat, and eyes are often infectious. Purulent catarrhal conjunctivitis is always contagious. Even the simple catarrhal form of this disease may be spread by discharges from diseased eyes getting into healthy eyes.

All use of towels, handkerchiefs, drinking cups, pencils, etc., by other pupils should be forbidden. Each student should have his own individual utensils, and never either borrow or lend.

Of the acute contagious diseases, the eruptive fevers, as smallpox, scarlet fever, measles, chicken-pox, and German measles, should all debar from the school not only the patient, but all other members of the family. The same is true of diphtheria, whooping-cough, mumps, and typhoid fever, and every other disease dangerous to public health. In all these maladies the return to school should be permitted only after thorough medical inspection has proved the patient free from the infection. In some of these disorders this may be several weeks or even months. This is true in cases of diphtheria and scarlet and typhoid fevers, where germs may linger in some morbid discharge or excretion long after all fevers and other symptoms have disappeared.

Many school children have organic disease of the kidneys, heart, or some other important organ of the body; or they may have inherited tendencies to nervous troubles, indigestion, torpid liver, constipation, etc. While these disorders are not dangerous to others because of infection, the patients may need special care to prevent them from injury in their school days. The student with organic heart lesions should avoid an oversedentary life on the one hand, and all overexertion as the other extreme. Every day he should walk, take a moderate amount of graduated mountain climbing or other exercise, and avoid overeating; and never should such students engage in football, wrestling, rowing matches, or any other athletic strength-tests likely to strain the heart or any other weak organ.

Of nervous afflictions, chorea and hysteria are the most common. These diseases are not contagious except through imitation. But because of the danger to others from this imitation habit, as well as the damage done the nervous patient himself by the indoor life and close application to studies, such a student would best be taken from school until he has recovered health and nerve control.

Ventilation, water and food supplies, and all other sanitary conditions of every school and other educational institution in the land should be carefully looked after.

It is a disgrace to the nation that scores of pupils should sicken and many die of typhoid fever, as was the case in Ithaca, N. Y., and some other colleges the past year. The lives and health of our youth should be valued more than to be thus uselessly sacrificed to the indifference and carelessness of their elders.

Disease among the young implies more or less physical degeneration, which means mental decay. Mental decay means moral degradation, and the latter, vice, crime, pauperism, and insanity, these causing national decadence and weakness.

The philosophy of inaction seems to be the influence most potent in this world in every cause which means to the masses an education in self-control, restraint of appetite, and elevation and improvement

of humanity. How many parents think of so rearing a child that it may develop into a man or woman stronger in body, sounder in mind, and on a higher moral plane than themselves? The father toils for money so that his children may have leisure to spend it at the gaming table, on the race course, in the saloon and worse places, if boys; if girls, on dress and dwarfing social dissipation. Neither the youths nor maidens have before them the healthy stimulus of being obliged to make their own career and measure themselves with others in the battle of life. The goal of all their ambition is social success. What if the body becomes diseased, the intellect dwarfed, and the morals debased? They are "getting on in the world." Truly, the top of society life is much like the bottom. The vices of the pampered rich are due to the same depraved appetites and uncontrolled passions as are those of the children of the slums. The bodily diseases are the same. Alcohol is poison whether taken in a Bowery basement or in a gilded Fifth Avenue banqueting hall. Licentiousness and its consequent diseases are the same, whether the parties in vice are the denizens of the slums or the multimillionaire's sons and the flashy demimonde, gorgeous in diamonds, silks, velvet, and lace.

Even the middle class do not look upon education as they should,—as a complete bodily training, making strong men and women with sound bodies, clear heads, and incorruptible morals; but they consider it rather a means of quickly fitting them for some trade or profession in which they can make money fast, or for the still more nerve-distracting life of speculation on some board of trade, or promoting some prospective mining, railroad, or other venture, to make a fortune by the turn of a wheel or the fictitious rise and fall of stock.

The Japanese have made a success of the practical application of hygienic principles amid the strenuous conditions of army life in an unhealthful country. Surely, what can be done to keep men healthy amid the mind-distracting environment of army life could be much better and more easily accomplished for American children at home and in school. If death from disease is almost abolished from the Mikado's army, why should not our schools be made health centers, instead of disease-culture institutions?

Life insurance companies, army recruiting agents, and institutions require medical bodily inspection before admission. Why not take the same precautions to ascertain the physical condition of students entering institutions of learning? Why not take stock of their endurabilities and capabilities? Why take in every child and youth and subject them to the same environment?

A youth with incipient tuberculosis might, on a Western ranch, riding all day and sleeping in the open air, grow up a stalwart man. In school he would die of pulmonary consumption in two years. Why not send him to the ranch?

Education is first of all a knowledge of men and things. Books improve us only as they assist in acquiring this knowledge. Why not have schools under medical supervision, and when the teacher reports a child ailing and failing in health and mental vigor, why not find out the cause and remove it?

Scores of young men and women come to the West every year to die because they were kept in school or at some confining indoor occupation until the disease was past all remedy. Hundreds more are confirmed dyspeptics and nervous wrecks, calamities to themselves, their families, and the communities in which they live. A common-sense hygienic regimen in their home and school

life might have made them useful, capable citizens and valuable members of society.

Why not have the army of school children and youths march on to health and success in after life rather than to early graves, invalidism, and disheartening life failures?

A Remedy for Neurasthenia.

In the *Boston Medical and Surgical Journal*, Dr. Herbert Hall remarks that in very many, if not in all cases, it will be found that unusual worry or a tendency to overestimate the importance of small things, or some equivalent mental perversion, existed long before the well-known symptoms of neurasthenia appeared. So frequently has this been found to be the case that the idea is gaining ground that neurasthenia may be largely or wholly psychic. It is often impossible to distinguish the effects of worry from the mental or muscular fatigue which follows long and arduous labor. With the establishment of neurasthenia, a feeling of fatigue is often brought on by the mere thought of exertion, or by the anticipation of any task.

Dr. Hall has founded a School of Handicraft, where neurasthenics are taught to work, pottery making and basket weaving being taught. Gradually the hours of rest are shortened and the hours of work lengthened, until the day is full of interesting work; the patient forgets himself, and there is no longer need of prolonged rest. The great ends to be attained are pride and satisfaction in work and in life, and self-forgetfulness.

A Natural Life the Only Remedy.

That tuberculosis is one of the most curable of all chronic infectious diseases, is now generally recognized by the medical profession. "It is not cured by drugs," says Dr. Knopf, "nor any specific remedy, nor by quacks, Christian scientists, faith curists, or other mysterious powers, but simply and solely by the judicious use of God's fresh, pure air, sunshine, plenty of good water, inside and outside, and good food."

SCHOOL OF HEALTH SEARCH QUESTIONS

THE DIETETIC VALUE OF FRUITS

1. For what disease is an exclusive fruit diet a remedy?
2. What is the best method of sweetening sour fruits?
3. In what way are rheumatics affected by the use of acid fruits?
4. With what class of persons do acid fruits sometimes disagree?
5. Name some of the advantages afforded by a free use of fruit?

SCHOOL HYGIENE

1. Name some of the causes of apparent stupidity in children?
2. What is the duty of the teacher with regard to the physical condition of pupils?
3. What is the most common of the diseases contracted in school?
4. By what means is it conveyed?
5. Mention other diseases liable to be contracted in school.

The Hundred Year Club

CENTENARIANS OF JAPAN

BY S. A. LOCKWOOD, M. D.

Kobé, Japan

AT the home for old ladies in Kobé, Japan, lives Miss Takise Ichikawa, who celebrated her one hundredth birthday on Aug. 27, 1904. She was born in the palace of the *daimyo* of her district, and during her girlhood and early womanhood acted as ladies' maid; hence one is not surprised when calling upon her to be received with much of the elaborate ceremony that was customary in the olden days.

Being very particular that none of her guests shall leave before receiving refreshments, she caused considerable amusement on a recent occasion by asking to be excused while she went to reprimand the maid for being so dilatory.

Even at her advanced age she can read the larger type in the newspapers, and often writes her name and facts about her life for the entertainment of visitors.

She was among the very early converts to Christianity, and, having never married, she occupies the unique position of being the oldest maiden lady and the oldest Japanese Christian in the Empire.

Another of Japan's interesting old people is Mrs. Tojo, aged one hundred and seven, who lives about forty miles west of Kobé.

Her father was a rice farmer, but the common food of farmers at that time being *mugi meshi*, or barley and rice boiled together, she determined to find a sailor husband, so that she might have white rice to eat every day! She was successful in accomplishing her purpose, and married a man twenty miles away from her home village. This was considered to be a great distance by the other village maidens.

For twenty years she shared the work of a sailor with her husband on a ship carrying cargo from port to port on the Inland Sea, and, she does not fail to add when describing her life at that time, had white rice every day.

At about the age of forty she began to wish for life on shore, so made her home in the village of Shikamo, where she is still living. She is somewhat deaf, but retains good eyesight. When a present is brought to her she bows repeatedly, and gives thanks to Buddha that he has used her guests as his messengers.

Until last year she was able to walk five miles in a day, and always spent several hours every day at her cotton spinning-wheel. She now contents herself with the less exhausting work of sewing and preparing garments for her great-great-grandchildren.

She has remarkable health, having never been ill a day in her life, enjoys her meals very much, and bids fair to live for many years to come.

The Oldest Twins in the Country.

A press despatch from Bridgeport, Conn., July 15, gives an interesting account of the oldest twins in the country, Julius and Junius Benham, who the day before celebrated their eighty-eighth birthday hay-making on their farm in Seymour: —

"'Hay-making is great fun,' said Junius, 'and I feel as if I could mow away hay up in the peak of the barn as I used to in days long ago, and mowin' away hay is about the hottest work there is to be found in summer.'

"The Benham twins are remarkable men. They are far from being invalids, though they have arrived at the age when most persons are usually feeble. Beginning life as apprentices to a mason, they worked up and later became builders and contractors.

"Some years ago the Benhams gave up building and settled down to the care of the real estate acquired in their long residence in Bridgeport. Every morning at eight o'clock the twins will be found at their office opening their mail and preparing to drive about the city to collect rents and look after their property.

"'We always got up early in the morning,' said Junius when spoken to about the hour of rising, 'and we can't get out of the habit.'

"The twins are in excellent health. Junius has had a little trouble with his eyes for the past few months, but the oculist declares it is not serious.

"'People ought to be cheerful if they want to live to be old,' said Julius. 'Look at brother Junius and me. No boys of the present day ever had as hard a time to get along as we did when we started, but we had what a good many boys of to-day do not have. Our mother gave to us iron constitutions, the greatest present a mother can give her boys, and we had been taught to live according to the simple and clean rules of the country. We lived clean lives always. We never drank liquor nor used tobacco. Money spent for such things is money thrown away, but many of the boys to-day seem to think they can't be men unless they drink liquor and use tobacco. Why, we would never have lived to celebrate our eighty-eighth birthday if it had not been that we lived right lives. You can enjoy yourself without going contrary to Nature's laws. There is plenty of harmless fun in the world, but it seems to me that people are looking for the fun nowadays that hurts rather than helps.'"

A Walking Contest of Aged Women.

Those who believe that people who have reached the advanced age of forty-five or fifty years are "out of the race," should have been present at a recent walking contest in Chicago, when eleven women, ranging in age from seventy-six to eighty years, competed for a prize in a four-mile walk.

The walking match resulted in a dead heat between Mrs. Susan Dickhart, aged seventy-nine, and Mrs. Maria Mueller, aged seventy-eight. Nine out of the eleven women who started, finished the walk without missing a step; the other two, becoming tired near the finish, were persuaded to accept a lift in a white touring car provided for that purpose.

All were in excellent condition at the close, and most declared themselves ready to do the whole distance over again. Instead, however, they were entertained at luncheon.

Of the two winners, one was a German who has been in this country but eleven years, and the other a Scandinavian, who left her native land only last fall. Both have worked hard all their lives, and in their youth adopted the rule

of "early to bed and early to rise." This is their explanation of their present health and endurance.

Born in 1764 and Still Living.

In a picturesque account given in the Chicago *Tribune*, of the life of Enrico Hernandez, who is now living in Rosario, Lower California, he is said to have been born March 9, 1764, the figures being proved by the parish records at Nazas, Mexico, where he was born.

In his early manhood, Enrico fought the battles of Mexico against Spain, and he has records proving that he was an officer under Miguel Hidalgo in the revolution of 1810. He fled from the vengeful Spaniards into Lower California, reaching La Paz when it was but an Indian village.

About thirty years ago he left La Paz for Rosario, where he lives a hermit life in an adobe hut that he built for himself.

He is said to cultivate the grounds around his house and to make frequent trips to the mountains for certain herbs which he uses for food. His whole life, which is spent mostly out of doors, is so ordered as to prolong his existence, and it is said that for the past fifty years he has appeared to grow no older. Open-air sleeping is part of his system.

How Women Can Keep Young.

A writer gives reasons why some women attain to a graceful old age that is as exquisite as was the perfect bloom of their youth. If not an infallible recipe for a long life, they certainly are for a happy one, and the perfect mental poise and spiritual equilibrium indicated can not fail to have its physical reflex. Here are some of the reasons: —

"She knew how to forget disagreeable things.

"She kept her nerves well in hand, and inflicted them on no one.

"She mastered the art of saying pleasant things.

"She did not expect too much from her friends.

"She made whatever work that came to her congenial.

"She retained her illusions, and did not believe all the world wicked and unkind.

"She relieved the miserable, and sympathized with the sorrowful.

"She never forgot that kind words and a smile cost nothing, but are priceless treasures to the discouraged.

"She did unto others as she would be done by, and now that old age has come to her, and there is a halo of white hair about her head, she is loved and considered."

Still Going Up Hill at Eighty.

The late Mary A. Livermore gave in the following words the secret of her habitual cheerfulness and buoyancy of spirit: —

"Some years ago I resolved to cultivate habitual cheerfulness under all circumstances. It has not been an easy task, but I have succeeded, and now, drifting on to my eightieth birthday, burdened with heavy cares, stripped by death of those nearest and dearest to me, I am not sorrowful. I am not 'going down hill,' as people say of the old, but '*up hill*' all the way, and am sure that life is better farther on."

Of all factors in the environment, that of the greatest importance in promoting bad physical and bad mental development is, I believe, the food factor. —*Dr. Robert Hutchinson.*

Health Chats with Little Folks

THE SIMPLE LIFE OF A GREAT KING

FOR the past year or two, people everywhere have been thinking and talking about the Japanese, whose great victories over the Russian armies have surprised the whole world. It has been found that the reason the Japs are so hardy, so strong, enduring, and courageous is their simple, natural way of living, and their attention to cleanliness and the care of their health.

The history of the world shows that the conquering races have always been those who were simple and temperate in their habits. That which gives success to nations, and raises them above others, will do the same thing for individuals.

Cyrus, the Persian, has been one of the heroes of the boys of all nations. Alexander was a great general, but he was not in the truest sense a king. He conquered the world, but could not rule it; for he had not learned the first lesson of a king — to rule himself. This lesson Cyrus learned when he was a little child. He not only conquered, but also ruled the world. In his life story we learn how he became so great a sovereign.

HOW THE PERSIAN BOYS LIVED

Although he was a king's son, the boy Cyrus did not live in luxury. It was very important to the nation that the young people should grow up to be strong and noble men and women. Laws were made by the state, telling what they should eat and drink, where and how long they were to take exercise, and how they should be educated.

The boys were brought up together, all in the same manner. They were allowed only the very simplest food — bread, cresses, and water. There were no highly seasoned dishes, no flesh foods, no sauces, to give them an unnatural appetite. This plain, frugal diet was to strengthen their bodies and make them so healthy that they could endure the fatigues of war to a good old age. It would also teach them self-control and temperance, for eating of rich, spicy, stimulating, or unnatural food leads to gluttony, liquor drinking, and other evils.

A little while ago a police magistrate said that liquor drinking was at the bottom of nearly all crime, and that if only this could be prevented, there would be so few criminals to punish that the police courts might almost be closed.

These wise Persians believed that it was better to prevent wickedness than to punish it. Instead of spending their time deciding how to punish criminals, their lawmakers tried to order things so that there would be no criminals to punish.

Cyrus was brought up with the other boys, as one of them, but he soon distinguished himself by his quickness and courage. He early learned to love the

principles of temperance and pure living, and to follow them for their own sake, and not because he was obliged to do so.

A TEMPERANCE LESSON

When Cyrus was twelve years old, his mother, who was the daughter of Astyages, king of the Medes, took the boy with her on a visit to her father. At his grandfather's court Cyrus found a very different state of things from what he was used to at home. Luxury and magnificence reigned everywhere. Even the old king painted his face and wore false hair. But all this finery had no effect whatever upon Cyrus. He was quite content with the plain dress and simple living of the Persians.

Astyages loved his young grandson. He made a great feast, which he thought would please the boy, and make him want to stay with him. Dainty and delicate foods were provided in great quantities. To the surprise of Astyages, Cyrus cared nothing at all for them.

"The Persians," he said to the king, "instead of going such a roundabout way to satisfy their hunger, have a much shorter way to the same end; a little bread and cresses with them answer the purpose."

Cyrus could not understand why people should go to so much trouble and expense when they could satisfy their hunger in such a simple way.

As the feast had been prepared especially for Cyrus, and he did not care to eat any of the foods, the king told him he could do as he pleased with them. He gave them all away to the king's officers who had been kind to him. Only one received nothing—Sacas, the king's cup-bearer. The king told Cyrus he was sorry Sacas was passed by, for he was his favorite because he served him so well.

"If that is all, grandfather," said the boy, "I will soon win your favor, for I will serve you better than he."

Cyrus at once dressed as a cup-bearer, and, with a napkin on his shoulder, walked gravely toward the king, holding the wine cup with three of his fingers, as the manner was, and served the king so gracefully that he was delighted.

"Poor Sacas," said Cyrus, joyfully, "I shall have your place."

The king kissed the boy, and said, "My dear child, no one could serve me with better grace; but you forgot one necessary ceremony, which is that of tasting." (The cup-bearer always poured some of the wine into his left hand and tasted it, before presenting it to the king.)

"No," said Cyrus, "I did not forget."

"Why, then, did you not do it?" asked the king.

"Because," said the boy, "I feared there was poison in the cup."

"Poison, child! How could you think so?"

"Yes, poison, grandfather, for not long ago, at an entertainment you gave to the lords of your court, after the guests had drunk a little of that liquor, I saw that all their heads were turned. They sang, made a noise, and talked of they knew not what. You yourself seemed to have forgotten that you were king, and when you would have danced, you could not stand upon your legs."

"Why," said the astonished king, "have you never seen the same thing happen to your father?"

"No, never," said Cyrus; "when he drinks, his thirst is quenched, and that is all."

FOOD AND CHARACTER

What and how we eat or drink has much to do with the making or marring of our character. "Tell me what you

eat," said one, "and I will tell you what you are." Those who eat rich, stimulating, highly seasoned food, or even too much of simple food, become irritable, ill-tempered, and weak in both body and character.

The purity and simplicity of the life of Cyrus showed itself in the sweetness of his character. His historian says that he "was beautiful in person, and still more lovely for the qualities of his mind; was of a sweet disposition, full of good nature and humanity, and had a great desire to learn. He was never afraid of any danger, nor discouraged by any hardship or difficulty." Yet "he had not his equal for patience and obedience."

This patience and sweetness of temper Cyrus kept all through his long life. We are told that "during all the time of his government, he was never known to speak one rough or angry word."

When Cyrus became a man, and a great conqueror, with the riches of the world at his command, he still kept to the simple living of his childhood days. Once, when he had just won a great victory, he had a meal of all kinds of food prepared for the soldiers of other nations who had helped him; but he asked that nothing but bread should be given to the Persians. They needed no seasoning but hunger, he said, and no drink but water from the river, for that was the way of living to which they had been used from their infancy. In this way he gave the others a lesson in simplicity and temperance.

Cyrus once visited a prince who was very anxious to have him stay and dine with him. But Cyrus refused, so the prince went back with him to his camp, and stayed to eat with him and his officers. He found that the ground, with the green turf upon it, was the only couch or bed they had, and their food and clothing were also very simple and plain.

Instead of despising this simplicity, the prince had the good sense to see that it was far better than his own vain, showy way of living. He said that the Assyrians, of whom he was one, distinguished themselves by pride, but the Persians distinguished themselves by merit.

The great example of their king became the rule of his people, and the Persians in the days of Cyrus were the greatest people in the world. The empire that he founded ruled the world for over two hundred years. When it fell, it was because the Persians had forsaken their simple, temperate way of life, and given themselves up to pride, luxury, and intemperance.

ISN'T IT WONDERFUL?

"Isn't it wonderful when you think
How the creeping grasses grow,
High on the mountain's rocky brink,
In the valley down below?
A common thing is a grass blade small,
Crushed by the feet that pass—
But all the dwarfs and giants tall,
Working till doomsday shadows fall,
Can't make a blade of grass.

"Isn't it wonderful when you think
How a little seed asleep,
Out of the earth new life will drink,
And cheerfully upward will creep?
A seed, we say, is a simple thing,
The germ of a flower or weed—
But all the earth's workmen laboring,
With all the help that wealth can bring,
Never can make a seed."

—*Julian Cutler.*

.. By the Editor ..

HYDROTHERAPY IN HOSPITALS

ACCORDING to Schaper, who has recently made a tour of Norway, Sweden, and Denmark, all the larger hospitals of those countries are provided with a special pavilion equipped for the giving of all kinds of baths. The same may be said of many of the leading German hospitals.

A few of the hospitals in this country have introduced hydriatic measures, but in most of the leading hospitals of the United States there is still a sad lack of appliances for the use of water and other physiologic measures. When visiting a large Eastern hospital recently the editor made inquiry with reference to provision for the use of water, and was told that the leading physician was quite enthusiastic about hydrotherapy a few years ago, but his ardor had cooled off, and he had recently said nothing about it. In fact, the opinion was entertained that hydrotherapy was one of those passing fads which would soon be no more talked about than the sulphuretted hydrogen method of treating tuberculosis, or any other of the medical fancies which seem to take possession of a certain portion of the medical profession from time to time.

This is a great mistake. Hydrotherapy is here to stay. It is not a new thing; it is not a fad. It is as old as the earth, and though it has been greatly neglected, will gradually win its way to increasing recognition. Water is unquestionably the most powerful, the most versatile, the most universal, of all therapeutic agents. To be sure, water itself is not curative. The same may be said of every other remedy. The remedy does not cure. The curative power resides wholly in the body. It is the blood that heals. The same forces are required to heal the sick man as to maintain the well man in a state of health. The reparative forces of the body are identical with those forces which maintain growth and nutritive equilibrium. The curative powers of the body can be most readily stimulated into activity and modified as necessary by those natural aids to recovery which are classed under the general head of physiologic therapy.

Cheese and Gall-Stones.

Little by little the findings of the bacteriological laboratory are being applied to practical, every-day life. Some of the most important of these have relation to diet. A fact of very great practical importance recently discovered is that gall-stones are caused by microbes that find their way into the bile from the intestines. It seems to be proved that in most cases the germs are absorbed from the intestine into the portal vein, or it may be they work their way through the walls of the blood vessels. Intestinal germs are always to be found in the center of gall-stones.

What has this to do with diet? — Much indeed; for it is evident that the cleaner the food, the freer from microbes will be the intestines, and the less likely will germs be to find their way into the blood and the bile. If the food were wholly free from germs, and the contents of the intestines

also germ-free, there would probably be no gall-stones. At present, according to excellent medical authority, every tenth person has stones in his gall-bladder. One may feel very comfortable, and have no sign of gall-bladder disease, and yet he may be all the time accumulating a cargo of these peculiar little pebbles. A European surgeon found more than seven thousand small stones in a single gall-bladder in an operation for this disease.

Foods which contain many microbes, like cheese, flesh that has a high flavor because of having been allowed to "ripen," that is, "prime beef," "game," etc., enormously multiply the number of germs in the alimentary canal, and so are an invitation to gall-stone or gall-bladder disease. Some dogs fed on putrid meat soon suffered from gall-stones, though before it had been found impossible to create gall-stones in their gall-bladder by putting foreign bodies in them.

Flesh eating encourages gall-stones and liver disease by increasing the number of germs in the bowel contents. Bouchard, the eminent French scientist, found that the fecal matters of a man who ate meat contained twice as many bacteria as those of a man who ate no meat. This fact accounts for the extremely putrid and offensive character of the feces of a carnivorous animal, such as a cat or a dog, as compared with those of a herbivorous animal; a sheep or a horse, for example. The excessive development of bacteria in the alimentary canal is a cause of various forms of intestinal indigestion, and of that very chronic, sometimes most intractable disease, intestinal catarrh.

The folly of eating cheese or any other food capable of infecting the alimentary canal and thus polluting the blood and exposing one's system to the danger of a serious surgical malady, must be apparent to any one who will give the matter a moment's reflection. Nothing is more conducive to good health than a pure, germ-free diet, which means a natural diet of fruits, grains, nuts, and properly prepared vegetables.

Loosening Diet.

Many entertain the erroneous notion that it is necessary to take a large amount of coarse food in order to "keep the bowels open." Doubtless many persons are damaged by the practise of swallowing large amounts of rubbish for the purpose of combating that almost universal evil among civilized people—constipation. Bran, coarse rye bread, or pumpernickel, and other coarse foodstuffs are often used for this purpose. As a matter of fact, this coarse diet is often a cause of constipation by producing dilatation of the colon, dilatation of the stomach, catarrh of the stomach, and catarrhal jaundice. Gall-stones may sometimes result from this coarse diet, which not only irritates the mucous membrane, but causes excessive distention of both stomach and colon, leading to fermentations, too long retention of foodstuffs, absorption of fecal matters, hemorrhoids, autointoxication, headache, and many other mischiefs.

A coarse diet is not necessary for avoiding constipation or any other condition. The best means of keeping the bowels in a normal state is regularity in relation to the evacuation of the bowels, and the employment of foods which naturally produce a laxative effect. The fruit acids are particularly useful for this purpose. The sweet juices of fruits also stimulate peristalsis. Malt honey sugar is a most excellent laxative. Concentrated juices of sweet grapes, sweet apples, and other sweet fruits, have a similar effect. Raisins and figs are laxative because of the fruit-sugar which they contain. Cane-sugar is laxative, but is at the same time irritating to the stomach, and is productive of gastric catarrh, and hence can not be recommended. The use of acid and sweet fruits, malt honey, malt honey sugar, and fruit juices as a means of regulating the bowels, in place of mineral waters, after-dinner pills, and the various popular laxative medicines, will diminish the frequency of cases of appendicitis, besides preventing a host of maladies which grow out of chronic indigestion and constipation.

Look Out for Fruit Germs.

During the summer months, while fresh fruits are in market, great care must be taken to avoid the special varieties of germs which are likely to be introduced into the body through the medium of fruits. Fruits are germ-free in their interior, but the surface of these very perishable foodstuffs is often covered with germs which readily give rise to various ferments whenever the proper degree of warmth is supplied. The heat of the body is sufficient to set these fermentative processes in operation, hence care should be taken in the use of fruit, especially that which is obtained from the market, to see that it is thoroughly cleansed before being eaten. Fruit should first be thoroughly washed, preferably in warm water in the case of hard-skinned fruits, to make sure that the germs are thoroughly killed. To make this a certainty, it is a good plan to dip the fruit for a few seconds into boiling water. This can not be done, of course, with such fruits as strawberries, but can be readily done with most fruits without in any way injuring their flavor or appearance. The unpleasant effect which many people experience from the use of fruits in warm weather is due not to the fruit itself, but to the germs taken in connection with it. The ordinary market is a veritable breeding-place for germs, and fruit which has been in the market but for a few hours is certain to be contaminated. Stale fruit must be scrupulously avoided by those who desire to keep their stomachs and bowels in a healthy condition during hot weather. Thousands of children die every year from the careless use of fruit. Especial care should be taken in the use of fruit purchased from the fruit-venders who expose their products on the street corners, or distribute them about the city in wagons. Fruit sold in this way is usually very inferior in character, and is contaminated to an unusual degree through the uncleanly practises of the ordinary fruit-vender. The commission merchants carefully sort their fruits, and dispose of the stale and immature fruits to street venders, who sell them to the uninformed, often to their injury.

The Mad Race Down Hill.

The New York *World* has become alarmed at the rapid rate at which the human race is rushing down the hill of degeneracy toward race extinction, and calls attention to the fact that while in 1868 there were in New York thirteen and one-half deaths from heart disease and Bright's disease in every ten thousand inhabitants, the number of deaths from these causes had risen in 1901, a period of only thirty-three years, to 29.7, an increase of 220 per cent. The *World* mentions among the probable causes of this most terrifying increase of two incurable maladies, high living, alcohol, and worry. These are causes which may be removed. The only hope for the world, the only thing which can possibly save the civilized race from extermination, is to be found in a sensible return to nature. By return to nature we do not mean return to savagery, but return, so far as possible, to those normal conditions in which the Creator intended man to live when he placed him on this earth to subdue and rule it.

Deadly Germs in Saliva.

DeLeon, an eminent European physician and scientist, has been investigating the conditions under which saliva may become a source of infection, especially in surgical operations. He has found that the surgeon in speaking may eject a great number of minute drops of saliva. Another thing he observed was that the surgeon who talks least has the best results in his surgical operations. There might be several reasons for this. Taking note of the work of a number of surgeons, he found that on an average about two hundred words were spoken by a surgeon in doing an operation of average length. Each of the drops of saliva which he examined was found to contain more than four thousand bacteria, and the number of droplets ejected during the speaking of two hundred words amounted to more than 250,000. Among these germs were always found great numbers of microbes capable of producing pus.

Here is, then, another source of danger, for which surgeons must be on the lookout. The leading surgeons have already adopted the practise of wearing a mouth mask so as to prevent infection from this source.

Public Baths.

Baltimore has a number of public baths, some of which are open for the summer only, others being in use during the entire year. One of these baths accommodates more than ten thousand patrons a week. Every city should have its public bath. The public gymnasium, with accommodations for both indoor and outdoor exercise, is also a public necessity which should be supplied to every community.

Outdoor Treatment for Non-Pulmonary Tuberculosis.

Medical experience in France has shown that the treatment of tuberculosis of the bones and joints and other non-pulmonary forms of tuberculosis by the open-air or outdoor method is quite as superior to the ordinary methods as is the outdoor treatment of pulmonary tuberculosis. Profiting by the experience of France, the New York Association for Improving the Condition of the Poor has made provision at its seaside camp on Coney Island for the treatment of children suffering from non-pulmonary tubercular disease.

Cerebrospinal Meningitis.

More than twelve hundred cases of death from cerebrospinal meningitis have occurred since January 1. This malady seems to be rapidly gaining ground. Researches in respect to the cause of the disease have shown that it may be produced by a number of different bacilli, though most frequently due to a single one. This microbe, known as Weichselbaum's *diplococcus intercellularis meningitidis*,— a name of truly frightful proportions,— has also been found in oxen; hence it is possible that in some way man's association with lower animals may be a source of infection with this disease.

Tuberculosis from Dusty Streets.

The Pennsylvania State Society for the Prevention of Tuberculosis has made such earnest representations of the danger from street dust that the city council of Philadelphia have appropriated four thousand dollars for the sprinkling of streets. This action is commendable, but something more thoroughgoing ought to be done. There should be a law passed in every State prohibiting the sweeping of streets when dry. Paved streets should be cleansed by flushing with water rather than by sweeping. The expense is probably not much greater, and the saving of life would be enormous. Dr. Woodbury, street cleaning commissioner of New York, in the examinations of four hundred out of the six thousand men in his department, discovered a number of persons suffering from tuberculosis. It is claimed that the death rate among the street sweepers of large cities is enormous.

The Blood.

The most wonderful thing in the animal body, one of the most marvelous in the universe, is the red blood. Holy Writ instructs us, "The blood is the life." The blood creates; it builds tissues, organs, cells, fibers, fluids. It creates, repairs, heals. It is a miracle-working agency that labors silently, ceaselessly, mysteriously, intelligently, performing for the body, each moment, tasks upon which life and health absolutely depend.

The blood is constantly renewed; eighteen million blood cells are created in our bodies every second of our lives. Thus the life which is in the blood is constantly renewed, and life is maintained.

Doctors do not cure sick folks; they only interpret the symptoms, name the disease, point out its causes, and tell how to remove them. It is the blood that heals.

DISEASE is not to be successfully combated by fighting symptoms, but by the removal of causes.

. . . Question Box . . .

10,230. Diet for Bright's Disease. — C. H. S., New York: "What is the choicest selection of foods for a person who has Bright's disease?"

Ans.— All meats must be avoided. Breads and other simple preparations of cereals are entirely wholesome. The yolks of eggs may be used moderately; it is well to avoid the whites. Nuts, if thoroughly masticated, and fruits, also spinach and green corn and green peas, are to be recommended. Buttermilk, cottage cheese, and kumyss are in some cases advantageous.

10,231. Hypopepsia. — J. H. M., South Dakota: "1. What causes hypopepsia? 2. Give diet prescription based on such foods as one generally has outside of a sanitarium. 3. Are eggs considered meat? 4. Do they combine well with fruits, grains, or vegetables at the same meal? 5. Are they as nutritious as meat? 6. In a slight case of hypopepsia, is cream good if masticated well with other foods? 7. Do legumes combine well with fruit?"

Ans.—1. In the majority of cases, hypopepsia, or hypochlorhydria, a condition in which there is a deficiency of acid, is preceded by the opposite condition — one in which there is an excess of acid formed. The principal cause of this condition is the use of flesh foods, and perhaps also the use of condiments, overeating, hasty eating, and other dietetic errors. The condition of hyperacidity, or hyperpepsia, continues for many years, until the gastric glands are worn out. Then hypopepsia supervenes, and, after a time, apepsia, or a condition in which there is no acid or pepsin formed in the stomach, is the next step. This condition prepares the way for cancer of the stomach, Bright's disease, cirrhosis of the liver, and various other grave maladies.

2. Well-toasted bread, fruits and nuts, wholesome, easily digestible vegetables prepared simply and eaten with great care to avoid all indigestible parts. Thorough mastication of food is a matter of very great importance in cases of this kind.

3. Eggs are not meat, but they are essentially the equivalent of meat, and more easily digestible if properly prepared.

4. Yes.

5. Yes, the nutritive value is essentially the same as that of flesh food?

6. In general, cream does not agree well with persons suffering from hypopepsia. It is likely to produce a condition commonly known as biliousness. The free use of cream lessens the formation of gastric acid, and so tends to increase the hypopepsia. If taken at all, it should be in small quantity. A little sweet, thoroughly sterilized butter agrees better than cream. Nuts or malted nuts are better than either cream or butter.

7. Yes, if taken in the form of purée. Care must be taken to exclude the skins.

10,232. Headaches — Soreness of the Bowels. — Mrs. J. P., Tennessee, suffers constantly with headache, also tenderness at extreme lower part of the spine. When she starts to walk she must walk fast or she will topple and fall. Flesh very sore for years. Bowels never move without an enema or laxative; severe pain on the right side of bowels across abdomen; has catarrh of stomach and bowels; suffers from fainting spells; stomach and lower limbs swell; after eating she is nervous and feels smothered; pains in chest and neck. "1. What is the cause of the continuous headaches? 2. Please prescribe proper diet. 3. Has an excess of fat in abdomen; what is the cause? 4. What home treatment would you recommend?"

Ans.— 1. Constipation and indigestion are a sufficient cause for headache.

2. The diet for hypopepsia is suitable in such cases. It is especially important to avoid fried foods, tea and coffee, excess of fats, meats, coarse vegetables, and condiments. Great care must be taken to masticate the food thoroughly. Granose flakes, corn flakes, malted nuts, in fact, all of the Sanitarium Food Company's health preparations, may be taken with advantage, in addition to such foods as well-baked potatoes, eggs, buttermilk, thoroughly toasted bread, purées of peas and beans, fruits

of all kinds, and nuts, eaten with care to secure thorough mastication.

3. Excessive fulness in the abdomen may be due to the accumulation of fat beneath the skin, or within the abdominal cavity. A common cause is deficient exercise, and excessive eating.

4. Fomentations over the abdomen twice a day, followed by rubbing with ice or very cold water, and a moist abdominal bandage during the night, with such exercises as raising the legs while lying upon the back, deep breathing, and all exercises which bring the muscles of the abdomen into proper play. Walking is a good exercise in such cases. The distance should be five to ten miles a day. Rowing is another excellent exercise for such cases.

10,233. Hypopepsia — Ringing in the Ear. — M. A. R., Michigan: "1. Are rice, tapioca, and sago suitable for persons with hypopepsia? 2. Are grains and bread, when dextrinized, less nourishing than before? 3. Can any one obtain malted nuts in Stockton, Cal.? 4. What causes a constant ringing in one ear? 5. Is syringing the ear with hot water helpful? Have no catarrh. 6. Does drinking warm water cause greater excretion of hydrochloric acid? 7. Do sweet potatoes contain much starch?"

Ans.— 1. Yes.

2. No.

3. Yes. Address the Sanitas Nut Food Company, Ltd., Battle Creek, Mich., or the St. Helena Food Company, Sanitarium, California.

4. There is probably catarrhal disease of the middle ear.

5. It might prove beneficial and might possibly be harmful. The ringing in the ear may be due to some nervous affection. A specialist should be consulted.

6. Drinking water to the amount of a pint, hot or cold, will tend to promote the secretion of hydrochloric acid. When the stomach is irritable as the result of an excessive secretion, the drinking of very hot water (half a pint half an hour before meals) tends to diminish the formation of hydrochloric acid. A like amount of cold water at the same time has the opposite effect.

7. Yes, starch is the principal nutritive element in sweet potatoes.

10,234. Phosphates — Uric Acid. — Mrs. D. C. B., Ohio: "1. What foods supply the system with phosphates? 2. In what foods besides meat is uric acid found?"

Ans.— 1. The cereals, especially wheat and corn.

2. Uric acid is present in exceedingly small quantity in peas, beans, and lentils, but the amount is not sufficient to produce any particularly harmful effect. A pound of baked beans contains about one grain of uric acid, whereas a pound of meat as served at table contains fourteen grains, and a pound of sweetbreads, seventy grains.

10,235. Leprosy. — Mrs. E. J. C., California: "1. What home treatment will cure or check the progress of leprosy? The disease first made its appearance six years ago, and has gradually developed since that time. 2. Of what does the Goto treatment consist?"

Ans.— 1. The wet sheet pack, the hot and cold spray, outdoor life, sun baths, and general tonic treatment are the best suitable means which can be employed for combating leprosy. We can not guarantee that these measures will effect a cure, for a person whose resistance has been lowered to such a point that he has become subject to this terrible malady may possibly be so reduced in vitality that complete health can not be restored.

2. We are not acquainted with this remedy. We shall be glad to hear about it if any of our readers are familiar with it.

10,236. Sterilizer. — J. H. H., Georgia: "Where can I purchase the best vessel in which to sterilize milk?"

Ans.— Any ordinary double boiler will answer the purpose perfectly.

10,237. Pan-Peptogen — Protose — Neurasthenia. — R. S. H., Michigan, asks: "1. Is pan-peptogen beneficial in hypopepsia? 2. What foods are best? 3. Should protose be baked until it is dry, or is it more easily digested when moist? 4. Can neurasthenia in a middle-aged woman be completely cured at home?"

Ans.— 1. Yes.

2. Read answer to 10,231.

3. All proteid foods are rendered less digestible when overcooked. Baking should not be prolonged to the point of dryness.

4. Probably not. Such a case requires treatment at a well-conducted sanitarium. There is no formula by which neurasthenia can be cured. Each case requires special treatment on its merits.

10,238. Stomach Trouble — Apples. — A subscriber, Indiana: "1. What causes a sense of fulness in the stomach for hours after

eating? 2. Please prescribe. 3. Is a nervous person benefited by eating plenty of apples? 4. What is a good food for one who is run down and nervous from overwork? 5. What is a simple remedy for constipation?"

Ans.— 1. An abnormally irritable condition of the gastric nerves. It is quite possible that the patient may be suffering from chronic gastritis.

2. Fomentations over the stomach three times a day, and a moist abdominal bandage during intervals; daily cool sponge bath, massage, tonic applications of electricity, outdoor life, exceedingly simple diet, avoiding all irritating condiments, tea, coffee, coarse food, and taking especial care to masticate the food. Battle Creek Sanitarium health foods will be found very beneficial. The patient really ought to visit a well-conducted sanitarium for a few weeks to have the case carefully investigated, and to learn how to live the simple life.

3. All fruits are usually beneficial in such cases.

4. All good foods properly eaten and well digested are helpful in such cases. An outdoor life, tonic baths, and a natural life in general, and return to nature in habits, are essential.

5. There is no simple remedy which will cure constipation. Various remedies must be applied to suit different cases. Granose flakes, malted nuts, malt honey, pan-peptogen, and the free use of acid fruits and fruit juices, are likely to prove beneficial.

10,239. Gum Chewing.— T. C. B., Michigan: "1. Does gum chewing aid digestion? 2. If not, what is its effect on digestion? 3. From what is gum manufactured?"

Ans.— 1. It is far better to chew the food.

2. The habit of gum chewing exhausts the salivary glands.

3. Most gum is manufactured from South American gum.

10,240. Bicarbonate of Soda — Carrots.— Mrs. T. W., California: "1. Is the use of a little bicarbonate of soda injurious in cooking peas and beans when the skins are tough; also when added to mixed orange and lemon juice, needed to neutralize acid, which makes a very palatable effervescent drink? 2. Have stewed carrots medicinal properties desirable in case of intestinal inflammation? My patient finds them soothing, and I have been told of persons suffering from cancer or ulcerated conditions of the stomach who could take nothing but carrots."

Ans.— 1. The practise is one not to be commended. If long continued, it must prove highly detrimental.

2. No.

10,241. Health of the Chinese — Tea and Coffee. — A correspondent wishes to know (1) why the Chinese are so healthy while they eat great quantities of pork and other animal foods. This correspondent has an aunt past ninety who is hale and hearty, and who has used tea and coffee liberally all her life. His grandfather and grandmother lived to be nearly one hundred years old, and they used tea and coffee almost continuously. 2. In view of this, why is it said that these articles are not wholesome?

Ans.— 1. We are not aware that the Chinese are particularly healthy, or that they are noted for great longevity. They certainly do not eat very large quantities of meat, for their country is so densely populated that they are not able to raise cattle or hogs in large quantities. Their use of flesh meats is extremely limited.

2. Scientific men are agreed that tea and coffee are in no way nutritious, that they are purely stimulants; and it is also well known at the present time that thein and caffein, the active principles of tea and coffee, are essentially identical with uric acid. This question is no longer in dispute.

10,242. Hog's Lard in Ointments.— A. H. R., Nova Scotia: "My daughter had a bone sore, caused by a bruise on the shin over a year ago. It healed, excepting the outer part, and I then changed the treatment from pure cocoanut oil to that of hog's lard with a small per cent of cocoanut oil. The sore enlarged by using this mixture until it quite covered the leg just above the ankle. Our druggist will not believe that this lard poisoned the leg. Please give your opinion, and advise."

Ans.— Animal fats are likely to become rancid when maintained at the temperature of the skin, and on that account are not suitable for use in ointments, as are vegetable or mineral oils.

10,243. Tabes Dorsalis — Gastrointestinal Catarrh. — A. M., New Jersey: "1. Please prescribe for a person suffering from tabes dorsalis in its incipient stages. 2. Have you a book treating on the disease? 3. Please prescribe treatment for gastrointestinal catarrh. What foods would be beneficial?"

Ans.— 1. The general health must be improved by outdoor life and return to nature-habits. We would advise in addition by all

means a sojourn at a well-equipped sanitarium as most likely to prove beneficial in such a case.

2. No. Such a case requires the immediate supervision of a skilled physician.

3. The diet should be liquid in character, and exceedingly simple. Malted nuts, gluten in the form of gruel or gluten biscuit, granola, granuto, corn flakes, granose flakes, and similar health foods, will be found very helpful; also potato gruel, gruels of all kinds, and subacid fruits, sweet fruits, yolks of eggs, and buttermilk.

10,244. Gastritis — Jaundice. — I. D. K., Pennsylvania: "1. Please prescribe treatment and diet for a person suffering from gastritis and jaundice. 2. What is the cause?"

Ans.— 1. Rest in bed, fomentations over the upper abdomen three times a day, and a heating compress in the intervals; a large enema daily, copious water drinking, a very simple diet, chiefly liquid.

2. Low vital resistance, resulting in infection of the stomach and gall-ducts.

10,245. Brazil Nuts.—W. C. W., Canada: "Please state the amount each of water, proteid, fats, carbohydrates, in Brazil nuts, filberts, cocoanuts; also the number of heat units per ounce."

	Water	Calories Per Ounce			
		Proteids	Fats	Carbohydrates	Total
Brazil Nuts	2.6%	19.8	178.1	8.2	206.1
Filberts	1.8%	18.2	174.1	15.2	207.5
Cocoanuts	7.2%	6.6	134.9	32.5	174.0

10,246. Bladder Trouble — Neuralgia.— Mrs. J. V., Iowa: "1. Please prescribe for a man of seventy-nine suffering from kidney and bladder trouble. The patient is a vegetarian. 2. What will relieve neuralgia?"

Ans.— 1. Eat very carefully; take great pains to masticate the food thoroughly. Drink water to the amount of two quarts a day. Empty the bowels thoroughly by a warm enema. Take a hot sitz bath at a temperature of 100°-105° for one or two minutes, then cool it down to 95° for ten minutes. Rest in bed will be found of great advantage. A doctor should be consulted. It is possible the bladder may need treatment. A hot bladder douche is beneficial in such cases.

2. Hot applications will generally be found beneficial, at least temporarily. Neuralgia is generally an indication that the blood is in some way defective, and needs to be improved.

10,247. Ventilation. — W. P., California: "1. How should bedrooms be constructed so as to secure proper ventilation? 2. When a bedroom is adjoining a room containing an open fireplace, does this afford sufficient ventilation to the room during the night? 3. Where does foul air gather — at the ceiling or near the floor?"

Ans.— 1. In summer-time it is best to sleep outdoors, on an open porch. The windows should be opened wide at all seasons, or a fresh-air tube should be used, bringing the fresh air from the window to the bed.

2. A fireplace is a good ventilator, and will aid in supplying an abundance of fresh air, provided a window is open into the room.

3. When fresh air enters the room warm, it rises at once to the ceiling, and gradually falls to the floor as it is cooled. At the same time the air is being rendered increasingly impure as it remains in the room, so in such a case most of the impure air will be found near the floor. When the fresh air enters the room cold, it is gradually warmed up, and rises toward the ceiling, becoming all the time more and more impure, so in this case the most impure air will be found at the ceiling. In the first case the outlet for the removal of the foul air should be at the bottom; in the second case, at the top.

10,248. Lameness — Fluttering of the Heart. — Mrs. E. D. K., Maine: "I am fifty-nine years old, a cripple, so can not exercise much. My heart flutters, and sometimes skips beats, and I suffer from acute pains all over the body. 1. Kindly give cause and cure. 2. Would you advise sitting out of doors when the weather is pleasant?"

Ans.— You are very likely suffering from indigestion. There must be an improvement of the general health. Short hot applications over the stomach, general cold baths carefully administered, and an outdoor life will be found very helpful.

2. Yes.

10,249. Carbonate of Iron — Quinin.— H. A. T., Michigan, asks: "1. Do you recommend carbonate of iron as a blood tonic? 2. What are its effects? 3. Do you recommend the use of quinin as a tonic in any way?"

Ans.— 1. No.

2. It tends to produce constipation, and when long used, affects the liver and kidneys.

3. No.

LITERARY NOTES.

"Practical Dietetics with Reference to Diet in Disease." By Alida Frances Pattee, Instructor in Dietetics, Bellevue Training-School for Nurses, Bellevue Hospital, New York City. Second edition, revised and enlarged. Published by the author, 52 West Thirty-Ninth St., New York City.

The position held by this writer gives her a peculiar fitness for the task of preparing a text-book on dietetics for nurses, which is what the work is designed for. Special diets for various diseases are given. For diabetes, one of the hardest of all diseases to treat dietetically, menus for the different seasons of the year are arranged. The difficulty of presenting the diabetic in the private house with a proper and *varied* menu is thus largely overcome. Nutritive enemata, several prominent hospital dietaries, infant feeding with tested formulæ,—all have a place in this work.

A discussion of calories (heat or food units) makes this important branch of dietetics clear, and shows the importance of exactness in dietetic prescriptions. The late experiments of Pawlow are also discussed, and the practical bearing of sight, smell, taste, mastication, and the peptogens of food on dietetics is emphasized.

Have you never heard the call of the wilderness? Have you never felt the mesmeric power of the vast, silent places where no man lives? Have you never gone forth in obedience to those mysterious summonings to the solitudes of mountain and forest where silence is a thing?—Then have you yet to learn the great secret; you have yet to know the joy of primal man, the thrilling exaltation of absolute kingship; for it is only along the unblazed trails of the wild, along the untrod, fern-set, and tangled paths by lake and river, or along the dizzy slant of mountain-side, that man walks—the sovereign of himself and of the earth.

We are becoming overcivilized. The red blood is thinning in our veins, and the marrow of our bones is drying up. The world is too much with us. We are wasting our powers, and losing sight of our origin. But there are times when we are reminded of our inheritance—the freedom of unlimited space and our kinship with the life of the wild. In the midst of our struggles to get on, when surfeited with books or brain-fagged with too much thinking, when the fingers have grown numb with the handling of ledgers, and the eyes dim with gazing at the ever-present dollar-sign; in the agony of soul-repression that attends this eternal strife of getting and spending, there comes to every one, like the echo of a memory, the distant call of the wilderness. The call is insistent—the impulse to heed it instinctive. It is at once a promulgation and a recognition of the great law of race preservation.—*From "The Call of the Wilderness," by Richard A. Haste, in* **Four-Track News** *for August.*

Before all other qualifications, however, the teacher's character is the fundamental requisite. That must be above reproach in all things. Milton's words about the poetic power are specially true in regard to the power to teach. "He who would not be frustrate," said the great poet, "of his hope to write well hereafter in laudable things, must himself be a true poem." He who would not be frustrate of his hope to teach well at any time ought himself to be a lofty exemplar of the virtues he would impress upon his pupils. The teacher who stands before a class for hours every day ought to exert greater influence even than the clergyman who speaks from the pulpit one day in the week, and he ought at least to have an equally lofty character, known and recognized by all men. The teacher who is master of his subject, and who has this nobility of character, needs no help of artifices to assist him in governing his pupils—he has simply to be, and they obey.—*Arthur Gilman, in the August* **Atlantic.**

"Motherhood as a Profession," is the title of a leading article in the September number of the English **Good Health.** J. Alston Campbell, F. R. G. S., writes entertainingly on "The Simple Life as Lived in the Orient," and Dr. Franklin Richards, taking his cue, one might think, from Dr. Haddon's paper before the Royal Institute of Public Health, discusses "The Stomach's Holiday." Dr. A. B. Olsen treats of "Food and Bodily Decay." This number also contains the first of what promises to be a series of articles on "The Physical Improvement of the Nation."

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